



Hercules Incorporated - Kenvil Works Facility Kenvil, New Jersey

Remedial Investigation Report

Volume E - Surface Water - Text, Figures, Tables and Appendices

March 2007



REMEDIAL INVESTIGATION REPORT
VOLUME E – SURFACE WATER - TEXT, FIGURES,
TABLES AND APPENDICES

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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1-1
1.1	RI OBJECTIVES	1-2
1.2	REPORT ORGANIZATION.....	1-3
2.0	SCOPE OF WORK.....	2-1
2.1	HEALTH AND SAFETY FIELD SCREENING FOR E&E CONSTITUENTS.....	2-2
2.2	FIELD SURFACE WATER HARDNESS AND PH MEASUREMENTS	2-3
2.3	SURFACE WATER SAMPLING	2-3
2.4	SURFACE WATER SAMPLE IDENTIFICATION	2-4
2.5	LABORATORY ANALYSIS	2-6
3.0	DATA QUALITY CONTROL	3-1
3.1	PRECISION AND ACCURACY	3-2
3.1.1.	Matrix Spikes/Matrix Spike Duplicate.....	3-2
3.1.2.	Laboratory Duplicates	3-2
3.1.3.	Laboratory Control Samples	3-3
3.1.4.	Surrogate Recoveries.....	3-3
3.1.5.	Calibration	3-3
3.2	REPRESENTATIVENESS	3-4
3.3	COMPLETENESS.....	3-4
3.4	COMPARABILITY.....	3-4
3.5	SUMMARY OF DATA QUALITY AND RELIABILITY	3-5
3.6	DATA QUALITY OBJECTIVES	3-5
4.0	DRAINAGE AREA DESCRIPTION.....	4-1
4.1	SURFACE WATER FEATURE TYPES	4-4
4.2	SURFACE WATER/GROUNDWATER INTERACTION IN THE FACILITY.....	4-5
5.0	RESULTS	5-1
5.1	SELECTION/CALCULATION OF COMPARISON CRITERIA	5-1
5.1.1.	Surface Water Quality Standards	5-2
5.1.2.	Surface Water Aquatic Life Criteria Calculation	5-3
5.2	FREQUENT EXCEEDANCE CONSTITUENTS	5-4
5.3	ORGANIZATION OF RESULTS.....	5-7
5.4	WESTERN DRAINAGE AREA ANALYTICAL RESULTS.....	5-11
5.4.1.	VOCs	5-12
5.4.2.	SVOCs.....	5-13
5.4.3.	Total Metals.....	5-13
5.4.4.	E&E	5-16
5.4.5.	Western Drainage Area Summary.....	5-17
5.5	CENTRAL DRAINAGE AREA ANALYTICAL RESULTS	5-18
5.5.1.	SVOCs.....	5-20

TABLE OF CONTENTS (Continued)

5.5.2.	Total Metals.....	5-20
5.5.3.	E&E	5-22
5.5.4.	Central Drainage Area Summary	5-23
5.6	EASTERN DRAINAGE AREA.....	5-24
5.6.1.	Total Metals.....	5-25
5.6.2.	Eastern Drainage Area Summary	5-25
5.7	DUCK POND AND TRIBUTARIES DRAINAGE AREA ANALYTICAL RESULTS	5-26
5.7.1.	Total Metals.....	5-27
5.7.2.	Dissolved Metals	5-28
5.7.3.	Duck Pond and Tributaries Drainage Area Summary	5-28
5.8	MISCELLANEOUS PONDS ANALYTICAL RESULTS	5-29
5.8.1.	Total Metals.....	5-30
5.8.2.	Dissolved Metals	5-31
5.8.3.	Miscellaneous Ponds Summary.....	5-31
6.0	CONCLUSIONS	6-1
6.1	SW RI SPECIFIC CONCLUSIONS	6-1
6.1.1.	Quality Assurance/Quality Control	6-2
6.1.2.	Surface Water/Groundwater Hydraulic Interaction	6-2
6.1.3.	Surface Water Mixing/Stratification	6-1
6.1.4.	Analytical Results.....	6-1
6.2	GENERAL CONCLUSION	6-4

APPENDICES

Appendix A	Surface Water/Sediment Site Investigation, November 2004
Appendix B	Data Validation Report
Appendix C	Letter of Interpretation – Wetland Delineation

FIGURES – Volume E-a

Figure No.

E-1	Surface Water - Sample Location Map
E-2	Surface Water - VOC Exceedance Map with Areal Extent
E-3	Surface Water - SVOC Exceedance Map with Areal Extent
E-4	Surface Water - Total Metals Exceedance Map with Areal Extent
E-5	Surface Water - Dissolved Metals Exceedance Map with Areal Extent
E-6	Surface Water - E&E Exceedance Map with Areal Extent
E-7	Surface Water - Site Wide Areal Extent of Exceedances
E-8	Surface Water - Total Arsenic Areal Extent Map
E-9	Surface Water - Total Lead Areal Extent Map
E-10	Surface Water - Total Mercury Areal Extent Map

TABLES – Volume E-b

Table No.

E-1	Surface Water - RI Analytical Methods and Criteria Summary
E-2	Surface Water - Analytical Samples with Practical Quantitation Limits Exceeding the Surface Water Criteria
E-3	Surface Water - Analytical Samples with Method Detection Limits Exceeding the Surface Water Criteria
E-4	Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
E-5	Surface Water - Calculation of Applicable Criteria
E-6	Surface Water - Sampling and Analysis Plan with Exceedance Summary
E-7	Surface Water - Analytical Results - Western Drainage
E-8	Surface Water - Analytical Results - Central Drainage
E-9	Surface Water - Analytical Results - Eastern Drainage
E-10	Surface Water - Analytical Results - Duck Pond & Tributaries
E-11	Surface Water - Analytical Results - Miscellaneous Ponds
E-12	Surface Water - Exceedance Summary - Western Drainage
E-13	Surface Water - Exceedance Summary - Central Drainage
E-14	Surface Water - Exceedance Summary - Eastern Drainage
E-15	Surface Water - Exceedance Summary - Duck Pond & Tributaries
E-16	Surface Water - Exceedance Summary - Miscellaneous Ponds

LIST OF ACRONYMS

2,4/2,6-DNT	2,4/2,6-Dinitrotoluene
2-A-DNT	2-Amino-4,6-Dinitrotoluene
4-A-DNT	4-Amino-2,6-Dinitrotoluene
AQAPP	Analytical Quality Assurance Project Plan
AWQC	Ambient Water Quality Criteria
bws	below water surface
BZAP	Benzo(a)pyrene
BZBF	Benzo(b)fluoranthene
C	Celsius
C&D	Construction & Demolition
CCC	Criterion Continuous Concentration (Chronic)
CMC	Criterion Maximum Concentration (Acute)
DQOs	Data Quality Objectives
E&E	Explosive and Energetic
EQB	Equipment Blank
Facility	Kenvil Works Facility
FECs	Frequently Exceedance Constituents
FQAPP	Field Quality Assurance Project Plan
FSPM	Field Sampling Procedures Manual
ft.	Foot/feet
GC/MS	Gas Chromatograph/Mass Spectrometer
GWQS	Groundwater Quality Standards
Hercules	Hercules Incorporated
HMX	Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine
ISRA	Industrial Site Recovery Act
LCS	Laboratory Control Samples
LLI	Lancaster Laboratories, Inc.
LOI	Letter of Interpretation
MCMUA	Morris County Municipal Utilities Authority
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MWH	MWH Americas, Inc.
N.J.A.C.	New Jersey Administrative Code
NC	Nitrocellulose
NG	Nitroglycerin
NJDEP	New Jersey Department of Environmental Protection
PAHs	Polynuclear Aromatic Hydrocarbons
PARCC	Precision, Accuracy, Representativeness, Comparability and Completeness
PCE	Tetrachloroethylene
PETN	Pentaerythritol Tetranitrate
PPL	Priority Pollutant List
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control

LIST OF ACRONYMS (Continued)

RA	Remedial Agreement
RASR	Remedial Action Selection Report
RDX	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SDG	Sample Delivery Group
SI	Site Investigation
SOPs	Standard Operating Procedures
SSHSP	Site Specific Health and Safety Plan
SVOCs	Semi-volatile Organic Constituents
SW	Surface Water
SW/SD-SI	Surface Water / Sediment Site Investigation
SWQS	Surface Water Quality Standards
TB	Trip Blank
TNT	2,4,6-Trinitrotoluene
TRSR	Technical Requirements for Site Remediation
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Constituents
WER	Water Effect Ratio

1.0 INTRODUCTION

Hercules Incorporated (Hercules) retained MWH Americas, Inc. (MWH) to conduct a Remedial Investigation (RI) at the Kenvil Works Facility (Facility), located in Kenvil, New Jersey, as part of its obligation to execute a Remedial Agreement (RA) with the New Jersey Department of Environmental Protection (NJDEP). The RA was signed on March 10, 1995 and established the basis for conducting activities at the Facility under New Jersey's Industrial Site Recovery Act (ISRA).

This section of the Kenvil RI Report (RIR) is Volume E and presents the surface water portion of the RI. This surface water volume of the RIR expands on the Surface Water/Sediment Site Investigation (SW/SD-SI), which was completed in 2004 (MWH, 2004) and approved by NJDEP in 2005 (Appendix A). The approach and organization of this RIR complies with requested variances to the New Jersey Administrative Code (N.J.A.C.) 7:26E Technical Requirements for Site Remediation (TRSR), with concurrence of the NJDEP Case Management team through the use of the triad approach. Variances were discussed in routinely scheduled triad approach meetings and during teleconferences held to discuss the development, submission, and subsequent review of the RIR. Triad approach meetings/teleconferences were attended by the NJDEP, Hercules, and Hercules' consultants and documented in written meeting minutes notes which are presented in Volume A of the RIR.

In addition to the findings of the SD/SW-SI, professional judgment based on extensive historic Explosive and Energetic (E&E) manufacturing operations was considered throughout site investigation activities. Key personnel included Harry Pascoe (Facility Historian and former Employee), Karl Broton (former Facility Employee), Peter Braxton (former Facility Employee and Area Manager), Raymond Hunt (former Facility Safety and Environmental Manager), James Bevis (present Facility Manager), and Edward Meeks (Energetic Materials Specialist).

The RIR is presented in five volumes because of the comprehensive coverage of the RI effort and the volume of the acquired analytical data. The intent of this surface water volume is to provide a comprehensive stand-alone document focusing on a single media

of concern to facilitate review of the RIR. However, to truly make the surface water volume an independent document, it would have required a duplication of information that is more effectively presented in other volumes of this RIR. Therefore, from time to time, the reviewer may find it necessary to refer to other volumes of this RIR.

The RIR is organized into the following volumes:

- Volume A – RI Summary Document. This section of the report presents RI objectives, brief summary of scope of work, data quality control objectives, brief summary of regional and site-specific geologic and hydrogeologic conditions, site conceptual model, ecological receptor analysis, brief summary of results, and conclusions and recommendations;
- Volume B – Soil remedial investigation;
- Volume C – Groundwater remedial investigation;
- Volume D – Sediment remedial investigation; and,
- Volume E – Surface Water remedial investigation.

This volume describes the results and interpretation of surface water RI activities conducted at the Facility. This volume is designed to comply with the intent of the TRSR for reporting remedial investigation activities [N.J.A.C. 7:26E-4.8], derived from the implementation of the NJDEP approved Revised Site-Wide Remedial Investigation Work Plan (RIWP, MWH, 2006).

1.1 RI OBJECTIVES

The objectives of the RI as described in N.J.A.C. 7:26E-4.1 are to determine the following:

- Delineate the horizontal and vertical extent of contamination in all media;
- Determine the general surface and subsurface characteristics of the Facility;
- Identify the migration paths and actual or potential receptors of contaminants;
- Collect and evaluate the data necessary to evaluate remedial action alternatives;

- Collect the data necessary to evaluate actual and potential ecological impacts;
- Collect data necessary to develop permit limitations for any discharge to environmental media; and,
- Identify containment and/or stabilization activities to prevent contaminant exposure to on-site receptors and to prevent off-site migration of contaminants while remedial alternatives are being evaluated.

1.2 REPORT ORGANIZATION

This surface water volume is further organized as follows:

- Section 1 presents the RI objectives for surface water;
- Section 2 presents a detailed description of field and laboratory activities conducted in support of the surface water remedial investigation;
- Section 3 presents the data quality control discussion;
- Section 4 presents a detailed description of each drainage area;
- Section 5 presents analytical results and findings for surface water; and,
- Section 6 presents conclusions for the surface water remedial investigation.

2.0 SCOPE OF WORK

The following sections summarize the field sampling scope of work and laboratory analyses for surface water samples collected during the RI, as specified in the RIWP. The RIWP was developed in accordance with the TRSR [N.J.A.C. 7:26E-4.5], the New Jersey Field Sampling Procedures Manual (FSPM, August 2005), and the NJDEP Surface Water Quality Standards (SWQS, October 2006). The scope of work for RI surface water sampling included the following activities:

- Health and safety field screening for E&E constituents;
- Collection of a total of 152 surface water samples from 152 sample locations for laboratory analyses (Figure E-1) (one from each location), to define the nature and extent of potential constituents present at concentrations exceeding the SWQS. Specifically, the following samples were collected:
 - o 124 discrete samples to provide data for horizontal delineation; and,
 - o 28 composite samples from Duck Pond and Shooting Pond to account for potential stratification.
- Field testing for pH and hardness at each of the 152 surface water locations.

The aforementioned scope of work was conducted in the following specified areas of the Facility during a single phase of investigation (Figure E-1):

Area I – RI, areas north and east of Powder Mill Road (B-Line, Finishing, Storage, and eastern portions of the Development former operational areas).

Area II – RI, areas south and west of Mule Barn Road (Nitroglycerin (NG), Pentaerythritol Tetranitrate (PETN), TNT, and Dynamite former operational areas).

Area III – RI, central portions of the Facility (A-Line, Maintenance, Ammonia-Nitrate(AN), and Western Development former operational areas).

Specific descriptions of field tasks are provided in the RIWP. Specific sample handling, Quality Assurance/Quality Control (QA/QC) procedures, and analytical methodologies are provided in the Final Analytical Quality Assurance Project Plan (AQAPP, MWH, 2006). Specific field procedures and methodologies are provided in the Final Field

Quality Assurance Project Plan (FQAPP, MWH, 2006). Health and safety protocols are provided in the Site Specific Health and Safety Plan (SSHSP, MWH, 2005).

2.1 HEALTH AND SAFETY FIELD SCREENING FOR E&E CONSTITUENTS

Surface water sample locations were visually inspected and field screened with an EX-PRAY™ colorimetric E&E detection test kit for the presence of E&E constituents prior to initiating sampling activities, to ensure the safety of field and laboratory personnel. Figure E-1 presents the surface water sample locations. If E&E constituents were visually identified at any time during the sampling event, the project energetic materials specialist was notified and personally inspected the area. The energetic materials specialist determined if the concentration of E&E constituents was significant and if the sampling activities could be safely conducted. Upon sample collection, a representative aliquot of the sample was field screened with the EX-PRAY™ test kit. If E&E constituents were detected, the lab was notified of the presence of E&E constituents and anticipated concentrations to ensure the samples were handled properly.

The EX-PRAY™ E&E constituent detection test kit is an aerosol based technique that utilizes a patented paper and colorimetric reaction to identify E&E constituents down to residual levels. This kit can differentiate between polynitro-aromatics (Trinitrotoluene (TNT), picric acid, etc.), nitrate esters (nitroglycerin (NG), nitrocellulose (NC), etc.), and nitramines (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX), Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine (HMX), etc.). The EX-PRAY™ kit, however, does not provide conclusive contaminant concentration data; it is designed only to determine if E&E constituents are present in ranges from residual levels to near percentage concentrations. However, a trained sampler with sufficient experience can broadly estimate anticipated concentration ranges. The manufacturers' information and instructions for performing the EX-PRAY™ tests are included in Appendix A of the FQAPP.

There were no instances where E&E constituents warranted a modification of the surface water sampling program.

2.2 FIELD SURFACE WATER HARDNESS AND PH MEASUREMENTS

To calculate site-specific Aquatic Life Criteria for Dissolved Metals (Section 5.1.2), hardness and pH values were field collected at each surface water sample location. Hardness and pH were measured from an aliquot of surface water sample using single use strips that detected values of 0-425 ppm and 0.0-13.0 pH units, respectively. The colors on the strips were compared to color charts located on the bottles, which provided the hardness or pH values.

2.3 SURFACE WATER SAMPLING

Per N.J.A.C. 7:26E-4.5(d)2, a total of 152 surface water samples were collected as part of the RI to define the horizontal extent of constituents at concentrations exceeding the applicable surface water criteria (Section 5.1). A total of 120 surface water samples were collected during the SW/SD-SI (Appendix A) per N.J.A.C. 7:26E-3.8, and were used as the basis to select areas requiring sampling in the RI. All RI sampling activities were performed within the areas determined by the SI to possess constituents at concentrations exceeding the applicable SWQS. Areas determined by the SI not to possess constituents at concentrations exceeding the applicable SWQS were not sampled during the RI. Due to the transient nature of surface water only the RI data is presented in this report.

During the RI surface water samples were collected at 50 to 100-foot (ft.). intervals from within areas constituents were detected at concentrations exceeding the SWQS as presented in the SW/SD-SI. The 100-ft. interval was the maximum distance between samples within the interior of delineated drainage zones. Surface water samples were collected from the middle of the water column, if the water column was less than 3-ft. deep and was not vertically stratified. Discrete samples were collected according to Section 10.0 of the FQAPP.

For water bodies deeper than 3-ft. (Duck Pond and Shooting Pond), surface water samples were collected using a discrete sampler to account for potential vertical stratification. Volatile Organic Constituents (VOCs) were not detected at concentrations exceeding the SWQS in the SW/SD-SI and not targeted for analysis at Duck Pond and

Shooting Pond, therefore composite sampling was appropriate. At each location, a discrete sample was collected from the top, middle and bottom six-inch interval, each aliquot was combined to form the composite sample before transferring to laboratory-provided bottles. Composite samples were collected following the guidelines provided in Section 6.8.2.2.2 of the FSPM.

Care was taken to minimize disturbance in the water body during sampling. Surface water samples were first collected from the furthest downstream sampling location of each drainage area and subsequent samples were collected working in an upstream direction to avoid disturbance in the water body. In cases when surface water samples and sediment samples were collected in conjunction or close proximity, the surface water sample was collected first to avoid disturbance of the surface water body.

Five surface water samples, listed in the following table, were proposed in the RIWP but were not collected due to insufficient water at the sample location during the original sampling event.

Drainage Area	Remedial Area	Former Operational Area	Preliminary Location Id*
Western	Miscellaneous/Offsite	Miscellaneous/Offsite	MIS-001
Central	Area II	Dynamite	D-001
Central	Area II	Dynamite	D-004
Central	Area II	Dynamite	D-007
Central	Area II	Dynamite	D-008

* = The preliminary location ID was established in the RIWP.

2.4 SURFACE WATER SAMPLE IDENTIFICATION

Surface water sample locations were designated with an alpha-numeric code that identified each sample by the matrix sampled, primary field event (remedial investigation), grid number, sequential sample number, depth interval, and field QA/QC type (if applicable). Sampled matrices were identified by a two-letter code, (i.e., SW for surface water samples). The primary field event was identified by a one letter code, (i.e., R for remedial investigation). The grid number corresponded to the

facility grid location (i.e., A13). Sequential sample numbers at each new sampling location for each sample type began with 01 and increased accordingly. Sample designations for surface water samples included the depths to the top and bottom of the sample interval. Field QA/QC types were utilized if the sample was submitted as a sample-specific QA/QC sample (i.e., duplicate, matrix spike (MS), matrix spike duplicate (MSD)).

The following is a guide for surface water sample identification:

Matrix	Primary Field Event	Grid Number	Sequential Sample	Top and bottom of Sample Interval (ft. bws)	Field QA/QC Type (if applicable)
AA	A	ANN	NN	(N-N)	(AA)

bws = below water surface

Where:

A = Alphabetic
N = Numeric

Examples of typical sample identifications for samples collected from surface water locations are shown below:

- The first discrete surface water sample collected from Grid A15 from a depth interval of 0.0-0.5 ft. bws was labeled as SW-R-A15-01(0.0-0.5).
- The eighth composite surface water sample from Grid M6 (Duck Pond) from a 3.5-ft. water column depth was labeled as SW-R-M6-08(0.0-3.5).
- An MS surface water sample collected from Grid A15 from a depth interval of 0.0-0.5 ft. bws was labeled as SW-R-A15-01(0.0-0.5)_MS.

Non-sample-specific field and laboratory QA/QC samples were designated with an alpha-numeric code that identified each sample by the type of QA/QC sample, sample collection date, and matrix code (if applicable). The type of QA/QC sample was identified by a QA/QC code, (i.e., EQB for equipment blank and TB for trip blank). The sample collection date corresponded to the date the QA/QC sample was collected, using a

mm/dd/yyyy format. Sampled matrices were identified by a two-letter code and indicate which matrix the QA/QC sample applies (i.e., equipment blank for surface water).

The following is a guide for non-sample-specific field and laboratory QA/QC sample identification:

Type of QA/QC Sample	Sample Collection Date (mm/dd/yyyy)	Matrix Code
		(if applicable)
AA	NN/NN/NNNN	AA

Where:

A = Alphabetic

N = Numeric

Examples of typical sample identifications for non-sample-specific field and laboratory samples are shown below:

- An equipment blank sample collected from decontaminated surface water sampling equipment on June 21, 2006 was labeled as EQB-06212006-SW.
- A trip blank sample submitted on June 21, 2006 was labeled as TB-06212006.
- Note: Surface water samples collected during the SW/SD-SI were designated in a similar format. Refer to Appendix A (SW/SD-SI) for a detailed description of surface water site investigation sample identification.

2.5 LABORATORY ANALYSIS

The 152 surface water samples collected as part of the RI were submitted to Lancaster Laboratories, Inc. (LLI) of Lancaster, Pennsylvania. Per N.J.A.C. 7:26E-2.1, LLI is certified to provide laboratory services in the state of New Jersey (Certification No. 77011). The surface water samples were analyzed for a site-specific suite of analytes based on the analytical results of the 120 samples collected during the SW/SD-SI. Specifically, the RI analyte list is comprised of any constituent identified at concentrations exceeding the applicable SWQS in the SW/SD-SI, including VOCs, Semi-

volatile Organic Constituents (SVOCs), Total Metals, Dissolved Metals, and E&E. Table E-1 presents the RI specific analytical sampling requirements (as indicated by SI analytical exceedances), including the surface water-specific constituent list and analytical methods.

Specific sample handling, QA/QC procedures, and analytical methodologies are provided in the AQAPP.

3.0 DATA QUALITY CONTROL

This section is a summary of the quality control review results for the surface water samples collected as part of the RI. LLI performed the chemical analyses of all surface water samples. All surface water samples were validated by a third-party validator in accordance with the following Region II Standard Operating Procedures (SOPs) for data validation:

- Inorganics: Evaluation of Metals Data for the Contract Laboratory Program, United States Environmental Protection Agency (USEPA) Region II SOP HW-2, Revision 11, January 1992.
- Organics: Evaluation of Organic Data for the Contract Laboratory Program, USEPA Region II SOP HW-6, Revision 12, March 2001.
- Explosives: Explosives Residue SOP, USEPA Region II, Revision 1.3, September 1994.

Appendix B presents the data validation notes for each sample delivery group (SDG) pertaining to the RI. There were no sample results that were rejected for this project. The field sample and associated quality control samples were validated for the following parameters:

- VOCs using Method 8260B;
- SVOCs using Method 8270C;
- Metals/Mercury using Methods 6010B/7470A; and,
- E&E using Method 8330.

The quality of the data was assessed according to the USEPA's PARCC (precision, accuracy, representativeness, comparability and completeness) parameters. These criteria were used to identify unacceptable or biased data that may require the laboratory implementing corrective actions, or otherwise require qualification of the data. The following is a summary of the data quality evaluation and resulting qualification of the results, as applicable.

3.1 PRECISION AND ACCURACY

Precision and accuracy were evaluated based on the quality control results generated from laboratory MS and MSD samples, laboratory duplicates, laboratory control samples (LCS), internal compounds and surrogate spike compounds. In addition, initial and continuing calibration results were used to assess accuracy.

Analyses that failed to meet precision or accuracy limits established in the AQAPP, or defined by the laboratory if not specified in the AQAPP, were assigned a data qualifier in accordance with Region II SOP as appropriate. There were no sample results that were rejected for this project. In the Region II SOP for Explosives Residues (USEPA Region II 1994), the criteria required for rejection of E&E for percent difference between the primary and secondary column exceeding 90% was not followed. If the percent difference was greater than 25%, the results were qualified as estimated, even if the percent difference was near or above 90%. The reported results with a high percent difference were considered usable since they were consistently reported from the primary column throughout the project by the laboratory, and the laboratory indicated the confirmatory column had five compounds that co-eluted.

3.1.1. Matrix Spikes/Matrix Spike Duplicate

MS and MSD samples were collected in the field and sent to the laboratory along with the field samples. If a field sample was not designated as a MS and MSD for a particular analysis, the laboratory provided MS results from the analytical batch, which were then used to assess accuracy. Data qualification was followed as specified in the Region II SOP in cases where the accuracy limits were not met.

3.1.2. Laboratory Duplicates

Laboratory duplicates were analyzed as appropriate throughout the analytical program, with the exception of the E&E residues. Field duplicates were collected and utilized to assess precision and accuracy for E&E analysis rather than laboratory duplicates. Field duplicates were collected for E&E analysis at the frequency specified in the AQAPP and were sent to the laboratory to be analyzed. In general, it is more difficult to collect a

duplicate field sample and retrieve acceptable results than it is for the laboratory to analyze a sub-sample of a sample and retrieve acceptable results. Thus, the amalgamation of laboratory duplicates and field duplicates ensured that the quality of data was not affected by the lack of laboratory duplicates, and also enabled laboratory and field precision to be reviewed during data validation. Additionally, the laboratory analyzed MS, MSD, LCS, and laboratory control sample duplicates. Those quality control samples were also evaluated for precision for this project. Data exceeding limits were qualified as specified in the Region II SOP.

3.1.3. Laboratory Control Samples

LCS were analyzed by the laboratory at the appropriate frequency throughout the project. Low or unacceptable LCS results led to qualification of laboratory data as specified in the Region II SOP.

3.1.4. Surrogate Recoveries

Surrogate spikes were introduced into samples as required in the analytical methods. Surrogate recoveries that were outside control limits were qualified as estimated in accordance with the Region II SOP.

3.1.5. Calibration

Initial and continuing calibration results were reviewed against specific analytical method criteria. Calibration results that were outside acceptable limits were then qualified for the particular failing compounds, in accordance with the Region II SOP.

The laboratory's SOP for E&E analysis differed slightly from the USEPA methodology to accommodate specific laboratory requirements. The initial calibration for E&E residues required in the Region II criteria specifies triplicate injection of each of the five calibration levels. The initial calibration provided in the data packages consisted of a single, six-point calibration with calculated relative percent differences reported for review of linearity. Data were not qualified due to the laboratory employing different calibration criteria than that specified in the Region II SOP. However, analytical

instrumentation was calibrated and met method criteria, and the laboratory performed routine quality control checks during analysis of the samples; thus no impact of the data was identified.

3.2 REPRESENTATIVENESS

Representativeness was evaluated through the analysis of laboratory method blank samples, field blank samples, and trip blank samples. Analysis of these types of samples was important to distinguish between ambient sampling and analytical levels, and actual site contamination. There were no major problems identified in any of the blanks and the blanks were analyzed per the method requirements. Blank data were used to further qualify associated field data if applicable.

3.3 COMPLETENESS

Data completeness was evaluated based on the samples requested on the chain-of-custody documentation and the samples reported by the laboratory.

The following anomalies were noted during the completeness review:

- SDG KVM48 - The laboratory noted that SW-R-M6-14(0-4) was identified as SW-R-M6-16(0-4) and the collection times matched M6-14 bottles as did the depth. The laboratory was contacted and the identification was corrected. No validation was required because this anomaly was solely a documentation issue that was resolved prior to analysis.

There were several SDGs in which the cooler temperature exceeded 4 degrees Celsius (C). Per the Region II SOP, samples were to be qualified if received at a temperature above 4 degrees C. For validation purposes, it was assumed that results were considered acceptable (no qualification) if the cooler temperature was below 5 degrees C.

3.4 COMPARABILITY

Comparability was achieved by analyzing the samples according to the specified standard methods, reporting limits and holding times for both extraction and analysis. The laboratory analyzed the field samples in accordance with the methods specified in the

AQAPP. The actual practical quantitation limits (PQLs) of non-detected concentrations are compared to the surface water criteria, and the comparison results are summarized in Table E-2. The laboratory method detection limits (MDLs) are also compared to the surface water criteria and summarized in Table E-3. The reporting limits provided by the laboratory were elevated if the sample was analyzed at a dilution. Data were not qualified based on elevated reporting limits. Samples that were analyzed outside holding times were qualified as estimated if the sample was extracted or analyzed within two times the required holding time, per Region II SOP.

3.5 SUMMARY OF DATA QUALITY AND RELIABILITY

The evaluation of the data against PARCC criteria provided information on the data quality and reliability. As a result of this evaluation, all data are of known and acceptable quality, as qualified based on the laboratory-established acceptance control limits or Region II guidance. These data are considered valid and useable for decision-making purposes.

3.6 DATA QUALITY OBJECTIVES

The data quality objectives (DQOs) set forth in the AQAPP and the comparison of these DQOs with actual laboratory data results are summarized in the following table. Only DQOs specific to definitive data and resulting data validation are summarized.

DQO SUMMARY FOR DATA VALIDATION PARAMETERS

Parameter	Sample Media	DQO goal	DQO Met?	Comments
Sample documentation	Surface Water	100%	Yes	Discrepancies were noted by laboratory and resolved.
Chain-of-custody documentation	Surface Water	100%	Yes	Discrepancies were noted by laboratory and resolved.
Instrument calibration meets laboratory's specification	Surface Water	100%	Yes	Data exceeding criteria were qualified.
Analyte identification and quantification	Surface Water	100%	Yes	
Trip blanks for VOCs	Surface Water	1 per cooler	Yes	
Instrument blanks	Surface Water	GC -every 10 samples	Yes	
		GC/MS – every 12 hours	Yes	
		Metals – every 10 samples	Yes	
Laboratory method blank	Surface Water	1 per SDG	Yes	
Equipment blank	Surface Water	1 per day	Yes	Sampled as appropriate.
Laboratory precision and accuracy	Surface Water	100% within established limits for MS, LCS, duplicates, surrogates.	Yes	Data exceeding precision and accuracy limits were qualified.
Laboratory MDLs<PQLs	Surface Water	100%	Yes	
LCS samples	Surface Water	100% within established limits per SDG	Yes	Data exceeding limits were qualified.
MS/MSD samples	Surface Water	5%	Yes	
Field duplicates	Surface Water	5%	Yes	

All analytical DQOs as set forth in the AQAPP were met. Data that exceeded limits for LCS and MS/MSD samples were qualified in accordance with the Region II SOP as applicable.

4.0 DRAINAGE AREA DESCRIPTION

The Facility has a diverse network of surface water drainage systems, which are comprised of both natural and anthropogenic features. To facilitate the site-wide surface water site and remedial investigations, five primary drainage areas were identified and are presented on Figure E-1:

- Western Drainage Area;
- Central Drainage Area;
- Eastern Drainage Area;
- Duck Pond and Tributaries Drainage Area; and,
- Miscellaneous Ponds.

Western Drainage Area

The Western Drainage Area originates with two streams flowing into the southwest corner of the Facility (Figure E-1). The first stream flows easterly from Howard Boulevard, approximately 300-ft. north of the intersection of Howard Boulevard and Route 46, and is derived from surface water runoff from Howard Boulevard and the adjacent shopping center. The second stream flows north from Route 46 approximately 1,000-ft. east from the intersection of Howard Boulevard and Route 46. These two streams converge within a drainage swale and flow north. The primary channel turns east and is joined by the Central and Eastern Drainage Areas. From the confluence of the Central, Western and Eastern Drainage Areas, the channel flows southward and exits the Facility at Route 46, approximately 300-ft. west of the intersection of Route 46 and Hercules Road. This is the only location where surface water exits the Facility. The channels and the majority of the tributaries of the Western Drainage Area are perennial streams, carrying surface water throughout the year. Only two tributaries in the northwest section of the Western Drainage Area are intermittent and dependent on precipitation events.

Central Drainage Area

The Central Drainage Area is formed by an off-site stream that flows in a generally southerly direction from Howard Boulevard (Figure E-1). The stream enters the Facility near the existing Morris County Municipal Utilities Authority (MCMUA) water pump station, flows into the Miscellaneous/Offsite Area and continues through the TNT, Pentaerythritol Tetranitrate (PETN), NG, and Dynamite Areas, respectively. Its primary on-site tributary flows from the A-Line Area into the Dynamite Area. Other tributaries consist of smaller streams and former process ditches. Segments of the main stream and tributaries are intermittent and dependent on precipitation events. A weir is located in the southern down-gradient portion of the Dynamite Area adjacent to Patrol Road within this drainage area. The weir restricts the flow of sediment from the former manufacturing operations historically performed up-gradient. The Central Drainage Area converges into the Western and Eastern Drainage Areas within the Miscellaneous/Offsite Area, in the southern portion of the site. The confluence was used to justify the separation of the Western, Central, and Eastern drainage systems for discussion purposes.

Eastern Drainage Area

The Eastern Drainage Area is formed by an offsite stream that flows onto the Facility south of the New Jersey Transit Railway (located along the northern boundary of the Facility) and just north of the Construction and Demolition (C&D) Landfill (Figure E-1). The stream flows southwest through the Development Area to Powder Mill Road, where it is then piped underground along the road, flowing through the Finishing Area in a southerly direction. The pipe crosses under Powder Mill Road, emerging above ground near the wastewater treatment plant, and continues southwest through the Maintenance Area and into the Dynamite Area. Tributaries include former process ditches from the B-Line Area and the Maintenance Area. The main channel is perennial and the tributaries are intermittent. A weir is located in the southern down-gradient portion of the Dynamite Area adjacent to Patrol Road within this drainage area. The weir restricts the flow of sediment from the former manufacturing operations historically performed up-gradient. The Eastern Drainage Area converges into the Western and Central Drainage Areas

within the Miscellaneous/Offsite Area, in the southern portion of the site. The confluence was used to justify the separation of the Western, Central, and Eastern drainage systems for discussion purposes.

Duck Pond and Its Tributaries

Duck Pond encompasses nearly 9-acres and is the largest surface water body at the Facility (Figure E-1). Duck Pond is a closed system with two inlets and no outlets, and originates within the Facility boundary. One inlet originates near the C&D Landfill and flows east through the Development Area, where it discharges into Duck Pond. The second inlet originates at Shooting Pond and discharges via a small stream to the northeast corner of Duck Pond. Shooting Pond is the deepest surface water body at the Facility, approximately 15-ft. deep in the center. Shooting Pond is secured with a sheet pile wall along its western shore and is armored along its eastern shore with rip-rap. Duck Pond and Shooting Pond are perennial surface water bodies. The tributaries to Duck Pond and Shooting Pond are seasonally intermittent and can be dry during the summer months.

Miscellaneous Ponds

There are 16 miscellaneous ponds at the Facility; 11 are located in the Storage Area, two in the Development Area, two in the NG Area, and one in the Miscellaneous/Offsite Area (Figure E-1). All are labeled miscellaneous because there are no inlets or outlets at any of these ponds. The miscellaneous ponds are seasonally intermittent and can be dry during the summer months.

4.1 SURFACE WATER FEATURE TYPES

Four surface water feature types were identified to be present at the Facility. The surface water feature types include the following:

- Intermittent Streams;
- Ponds;
- Streams; and,
- Wetland Areas.

Many of the drainage systems incorporate combinations of the above listed surface water feature types. However, each drainage system may not possess all of the identified surface water feature types.

Streams

Streams are characterized as channelized bodies of water that flow through the Facility. They are generally less than 5-ft. wide and less than 2-ft. deep. Streams generally are perennial and are dry only during periods of severe drought. The base flow of these surface water bodies originates from groundwater and precipitation.

Intermittent Streams

Intermittent streams are similar to streams except that they are typically smaller and do not contain water throughout the year, a consequence of being primarily influenced by rainfall. Typically, the intermittent streams act as tributaries to the streams during seasonal periods of high precipitation. Many former process ditches are classified as intermittent streams.

Ponds

Ponds are characterized as depressions within the ground surface that retain surface water. The majority of the ponds at the Facility (with the exception of Duck Pond and Shooting Pond) are generally less than 50-ft. in diameter and less than 2-ft. deep. Most of the site ponds fluctuate significantly in water level, due to variations in seasonal precipitation. Duck Pond and Shooting Pond have been historically modified during site

development, and are much larger and deeper than the majority of the ponds at the Facility, and warrant their own drainage system as discussed in Section 4.1.

Wetland Areas

Wetland areas of the Facility are typically low lying areas that are frequently saturated and often contain some degree of seasonal surface water. The term wetland areas is not intended to imply delineated wetlands. Delineated wetlands are classified in a letter of interpretation (LOI) approved by NJDEP on June 14, 2002. The LOI was prepared in accordance with N.J.A.C. 7:7A-8.3 and is presented as Appendix C

4.2 SURFACE WATER/GROUNDWATER INTERACTION IN THE FACILITY

Prior to the RI, detailed information did not exist concerning the surface water/groundwater interaction at the Facility. However, staff gauges placed in Duck Pond, Shooting Pond, the unnamed pond within the Dynamite Area, and various streams and Miscellaneous Ponds located throughout the Facility indicate that groundwater interacts differently with each pond or stream (Volume C – Groundwater Remedial Investigation Report). Duck Pond appears to receive groundwater discharge along its western section and recharges groundwater along its northern, southern, and eastern sections. Shooting Pond appears to recharge groundwater in all directions due to elevated topography. The unnamed pond in the Dynamite Area appears to primarily receive groundwater discharge from the northern, eastern, and western directions. The streams and Miscellaneous Ponds either receive groundwater discharge or recharge groundwater depending on the elevations of surface water and groundwater.

5.0 RESULTS

The following sections present the results of the analytical surface water samples collected during the RI to determine the nature and extent of constituents present within surface water detected at concentrations exceeding the SWQS. The SW/SD-SI analytical data were utilized to identify surface water bodies or stream segments that required additional investigation activities, and to develop RI-specific analytes. The SW/SD-SI report is presented in Appendix A. The surface water bodies or stream segments identified to be in compliance with the SWQS during the Site Investigation (SI) are utilized in the RI as termination points when appropriate. This section is designed to comply with the intent of the Technical Requirements for reporting remedial investigations [N.J.A.C. 7:28E-4.8(b)3]. The results narrative is supported by data tables and figures that aid in data evaluation and presentation, per N.J.A.C. 7:28E-4.8(c).

A total of 152 surface water samples were collected from 152 locations (Figure E-1). The following table presents the number of surface water sample locations and analytical samples collected during the RI:

Drainage Area	Number of RI Sample Locations / Samples
Western Drainage Area	41
Central Drainage Area	39
Eastern Drainage Area	15
Duck Pond and Tributaries Drainage Area	42
Miscellaneous Ponds	15
TOTAL	152

5.1 SELECTION/CALCULATION OF COMPARISON CRITERIA

The following sections present the regulatory criteria selected for comparison to the laboratory analytical results. During the initial comparison of NJDEP criteria to laboratory analyzed sample results, it was noted that some detected constituents did not have corresponding NJDEP criterion. Hercules selected alternate criteria for comparison to the detected constituents without established NJDEP criteria in the following manner:

- From a method of calculation following NJDEP guidance for as many constituents as possible; or,
- Where such calculation is not possible, from nationally recognized sources.

In all cases, an established NJDEP criteria was first sought or calculated using NJDEP guidance. In the event an established NJDEP criterion was not available or could not be calculated using NJDEP guidance, an existing alternate criterion was either selected or calculated based on nationally recognized sources.

The intent of using the alternate criteria is to provide a screening level indication for the evaluation of potential environmental influence of detected constituents that are without an established NJDEP criteria or where a method of calculation following NJDEP guidance could not be performed. Table E-1 presents a complete list of the SWQS and sources applied in the RIR.

5.1.1. Surface Water Quality Standards

The analytical results of the surface water samples were compared to the following regulatory criteria:

- NJDEP SWQS as specified in N.J.A.C. 7:9B October 2006. Specifically, all the connected surface water bodies that flow from the Facility to the Lamington River were compared to the NJDEP SWQS Fresh Water Class 2 – Non Trout Production Criteria 1 (FW2-NT(C1)) for human health and aquatic life parameters, as assigned by the N.J.A.C. 7:9B to the Lamington River (Succasunna) – Source to Rt. 206 bridge section. Surface water bodies within the Facility that are isolated from and do not contribute surface water to the Lamington River were compared to the NJDEP SWQS FW2-NT human health and aquatic life criteria as specified by N.J.A.C. 7:9B; and,
- Criteria for E&E constituents and Benzo(g,h,i)perylene were developed according to 1998 EPA Ambient Water Quality Criteria Derivation Methodology (AWQC), applicable to NJ surface water FW2-NT. The calculation is provided in detail in Table E-5.

For the purpose of this report, the term SWQS is used as a collective term and encompasses the aforementioned criteria sources as a whole, where applicable. Table E-1 presents the RI-specific analytes and the SWQS applied in the RIR. Tables E-4 and E-5 present calculation

of Aquatic Life Criteria for Dissolved Metals, and calculation of E&E constituents and Benzo(g,h,i)perylene.

5.1.2. Surface Water Aquatic Life Criteria Calculation

Aquatic life SWQS were calculated for three Dissolved Metals which are hardness dependent (Copper, Silver and Zinc) for each drainage system based on hardness values collected during field sampling efforts, according to the guidelines presented in the SWQS. Dissolved Metal Aquatic Life SWQS were calculated per drainage area because the natural flow of surface water can experience similar environmental conditions within each discrete drainage area, but can have varying characteristics from one drainage area to another.

Average hardness was calculated for each drainage area based on field measurements of hardness at the sample points. The average hardness value was applied to the following equations to obtain Aquatic Life Acute and Aquatic Life Chronic Dissolved Metal criteria for each drainage area:

Acute Aquatic Life (CMC) = $WER * [e^{(V[\ln(\text{average hardness value per drainage system})] + \ln A - V[\ln Z])}] * CF$

Chronic Aquatic Life (CCC) = $WER * [e^{(V[\ln(\text{average hardness value per drainage system})] + \ln A - V[\ln Z])}] * CF$

Where:

- **CMC** = Criterion Maximum Concentration (Acute), the water quality criteria to protect against acute effects in aquatic life is the highest in-stream concentration of a priority toxic pollutant consisting of a one-hour average not to be exceeded more than once every three years on the average.
- **CCC** = Criterion Continuous Concentration (Chronic), the water quality criteria to protect against chronic effects in aquatic life is the highest in-stream concentration of a priority toxic pollutant consisting of a four-day average not to be exceeded more than once every three years on the average.
- **WER** = Water Effect Ratio. Default value = 1.0 as stated in NJDEP SWQS October 2006 report.

- **e** = Constant (2.718281828)
- **V, A, Z** = Constituent specific values presented in NJDEP SWQS October 2006 general notes.
- **CF** = Constituent specific conversion factor presented in NJDEP SWQS October 2006 general notes.

The average hardness calculated per drainage system for the RI samples is as follows:

Western Drainage Area - 78 mg/L

Central Drainage Area - 86 mg/L

Eastern Drainage Area - 192 mg/L

Duck Pond and Tributaries Drainage Area- 49 mg/L

Miscellaneous Ponds - 64 mg/L

Table E-4 presents the average hardness calculations and the dissolved metal hardness-dependent aquatic life calculations for Copper, Silver, and Zinc by drainage area.

5.2 FREQUENT EXCEEDANCE CONSTITUENTS

Frequent exceedance constituents (FECs) are identified for each media to facilitate and focus the site-wide understanding of key media-specific constituent exceedances. FECs are generally defined as those constituents with significant percentages of detected concentrations above the corresponding media-specific criteria (determined by the number of exceedances divided by the total number of analyses for a specific constituent). The FEC concept was developed to provide a tool to assist RIR reviewers with assimilating an enormous amount of data in a timely and efficient manner. The concept will also be useful in a similar manner during development of the Remedial Action Selection Report (RASR) to identify constituents that will drive remedy selection. The FEC concept was not developed to provide a mechanism to eliminate any constituents of exceedance from future remedial action selection or compliance attainment.

The basis for establishing the specific percentage of exceedances above which a constituent is considered an FEC varies from media to media but generally follows the rationale that by setting the percentage at an appropriate level, the nature and extent of the FECs thereby defined will reasonably represent the overall site-wide nature and extent of exceedances in that media.

Surface water FECs are defined for the purpose of this report as constituents with detected concentrations exceeding the SWQS at a frequency greater than 10% on a site-wide basis (i.e., were reported at concentrations above the SWQS greater than 10% of all surface water samples analyzed for the constituent during the RI). The following three FECs were identified for surface water:

- Total Arsenic;
- Total Lead; and,
- Total Mercury.

The relative frequency of exceedances for Dissolved Metals are greater than 10% for three constituents: Zinc, Copper, and Lead. These constituents were not selected as site-wide FECs because Dissolved Metals were only sampled at 23 locations among the 152 site-wide locations based on SI exceedances. Exceedances were only identified at limited areas in Duck Pond and Miscellaneous Ponds (Table E-6 and Figure E-5). Therefore, exceedance of Dissolved Metals does not represent a site-wide environmental concern. Based on this same reasoning, Tetrachloroethylene (PCE) (29.4%) was also not selected as an FEC. Only 17 surface water samples were analyzed for PCE, and exceedances were identified at a limited area in Western Drainage (Table E-6 and Figure E-2) and therefore, PCE SWQS exceedance does not represent a site-wide surface water condition. In addition, the area that PCE was detected at concentrations exceeding the SWQS is located in the southern area of the Facility at a significant distance from the former operational areas and is attributed to the regional VOC plume with which is not associated with historic operations performed at the Facility.

The following tables present each constituent detected through laboratory analysis of surface water samples and the relative frequency the constituent was detected at a concentration exceeding the SWQS. The surface water FECs are bolded in the tables.

VOCs:

Constituent	Units	Human Health SWQS	Total Numbers of Samples Analyzed	Total Number of Human Health Exceedances	Relative Frequency of Human Health Exceedances
PCE	UG/L	0.34	17	5	29.41%

SVOCs:

Constituent	Units	Human Health SWQS	Total Numbers of Samples Analyzed	Total Number of Human Health Exceedances	Relative Frequency of Human Health Exceedances
Benzo(b)fluoranthene (BZBF)	UG/L	0.038	34	3	8.82%
2,4-Dinitrotoluene (2,4-DNT)	UG/L	0.11	34	1	2.94%
Benzo(a)pyrene (BZAP)	UG/L	0.0038	34	1	2.94%

Total Metals:

Constituent	Units	Human Health SWQS	Total Numbers of Samples Analyzed	Total Number of Human Health Exceedances	Relative Frequency of Human Health Exceedances
Lead	MG/L	0.005	111	68	61.26%
Arsenic	MG/L	0.000017	111	28	25.23%
Mercury	MG/L	0.00005	111	24	21.62%
Thallium	MG/L	0.00024	111	4	3.60%
Copper	MG/L	1.3	111	1	0.90%
Zinc	MG/L	7.4	111	1	0.90%

Dissolved Metals:

Constituent	Units	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Total Numbers of Samples Analyzed	Total Number of Aquatic Life Chronic Exceedances	Relative Frequency of Aquatic Life Chronic Exceedances	Total Number of Aquatic Life Acute Exceedances	Relative Frequency of Aquatic Life Acute Exceedances
Zinc*	MG/L	0.0925 ⁽¹⁾ 0.0998 ⁽²⁾ 0.1982 ⁽³⁾ 0.0621 ⁽⁴⁾ 0.0781 ⁽⁵⁾	0.0925 ⁽¹⁾ 0.0998 ⁽²⁾ 0.1982 ⁽³⁾ 0.0621 ⁽⁴⁾ 0.0781 ⁽⁵⁾	23	4	17.39%	4	17.39%
Copper*	MG/L	0.0069 ⁽¹⁾ 0.0074 ⁽²⁾ 0.0148 ⁽³⁾ 0.0046 ⁽⁴⁾ 0.0058 ⁽⁵⁾	0.0101 ⁽¹⁾ 0.0110 ⁽²⁾ 0.0236 ⁽³⁾ 0.0065 ⁽⁴⁾ 0.0084 ⁽⁵⁾	23	3	13.04%	3	13.04%
Lead	MG/L	0.0054	0.038	23	6	26.09%	1	4.35%
Selenium	MG/L	0.005	0.02	23	1	4.35%	0	NA

* = Site-specific Dissolved Metal criteria were developed based on hardness results, per drainage type.

⁽¹⁾ Calculated Chronic and Acute value for Western Drainage Area ;

⁽²⁾ Calculated Chronic and Acute value for Central Drainage Area;

⁽³⁾ Calculated Chronic and Acute value for Eastern Drainage Area;

⁽⁴⁾ Calculated Chronic and Acute value for Duck Pond and Tributaries Drainage Area; and

⁽⁵⁾ Calculated Chronic and Acute value for Miscellaneous Ponds Drainage Areas.

E&E:

Constituent	Units	Human Health SWQS	Total Numbers of Samples Analyzed	Total Number of Human Health Exceedances	Relative Frequency of Human Health Exceedances
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	UG/L	0.31	152	4	2.63%
2,4,6-Trinitrotoluene (TNT)	UG/L	1.1	152	4	2.63%
4-Amino-2,6-Dinitrotoluene (4-A-DNT)	UG/L	6	152	2	1.32%
2-Amino-4,6-Dinitrotoluene (2-A-DNT)	UG/L	6	152	1	0.66%

Figures E-8 through E-10 present site-wide areal extents for each FEC (Arsenic, Lead, and Mercury, respectively).

5.3 ORGANIZATION OF RESULTS

The analytical result narrative discussion is presented by drainage area (Western, Eastern, Central, Duck Pond and Tributaries, and Miscellaneous Ponds) and by analytical group. The surface water analytical results discussed in the following sections are presented in geographical order moving from west to east and south to north, to aid the reviewer in locating the samples and delineated areas on each figure. Surface water was horizontally

delineated to define nature and extent of constituents present at concentrations exceeding the SWQS. Surface water was not vertically delineated because vertical stratification is not believed to be present at those shallow water bodies less than 3-ft. deep. Vertical stratification is prevented from forming due to the shallow depths, consistent disturbance from precipitation, and channel morphology. Composite samples were collected to account for potential vertical stratification at deep water bodies such as Duck Pond and Shooting Pond. For the purpose of delineation, several surface water physical boundaries are utilized:

- Head waters or tributaries as origins;
- Stream, pond, or wet area banks as side-stream boundaries; and
- Termination points of stream channels as end points (occurs most frequently in former drainage and process ditches).

Horizontal limits of surface water exceedances are inferred to be half the distance between SWQS exceedance points and compliance points (no SWQS exceedances). At areas or stream segments where surface water samples were not collected during the RI because they were identified to be in compliance (no SWQS exceedances) during the SI, the horizontal limits of exceedance are inferred to be 100-ft toward the SI compliance points, since 100-ft is the maximum sampling interval for the RI samples. These are considered conservative assumptions that were used to graphically depict the data and the actual extent of constituents present may be less than shown.

The analytical results narrative discussion is supported by the following tables and figures to facilitate data presentation and interpretation:

Tables

- Table E-1 presents the RI-specific analytes, analytical methods, selected criteria, and sources for the site-wide surface water samples collected in the RI;
- Table E-2 presents the RI analytical samples with PQLs exceeding the SWQS;
- Table E-3 presents the RI analytical samples with MDLs exceeding the SWQS;

- Table E-4 presents calculated Aquatic Life Criteria values for Dissolved Metals according to NJDEP SWQS guidelines;
- Table E-5 presents calculated SWQS values for E&E constituents and Benzo(g,h,i)perylene, according to EPA AWQC guidelines;
- Table E-6 presents the site-wide sampling and analysis plan including SWQS exceedances by analytical group (VOCs, SVOCs, Total Metals, Dissolved Metals, and E&E) ;
- Tables E-7 through E-11 present the complete set of comparisons of laboratory analyses to the SWQS by drainage area (Western Drainage Area, Central Drainage Area, Eastern Drainage Area, Duck Pond and Tributaries Drainage Area, and Miscellaneous Ponds, respectively); and,
- Tables E-12 through E-16 present a summary of the SWQS exceedances by drainage area (Western Drainage Area, Central Drainage Area, Eastern Drainage Area, Duck Pond and Tributaries Drainage Area, and Miscellaneous Ponds, respectively).

Figures

- Figure E-1 presents the site-wide surface water sample location map;
- Figures E-2 through E-6 present site-wide areal extent of analytical groups that exceed the SWQS (VOCs, SVOCs, Total Metals, Dissolved Metals, and E&E, respectively). Analytical samples are presented in the following formats:
 - Surface water sample locations with constituents detected at concentrations exceeding the SWQS are color-coded red (exceedance points). Dissolved Metals are color-coded red for Aquatic Life Acute and orange for Aquatic Life Chronic;
 - Surface water sample locations with constituents that were not detected at concentrations exceeding the SWQS and are therefore in compliance are color-coded green (compliance points);
 - Groundwater samples were included in the evaluation of surface water where groundwater and surface water exceedances were interpreted to be contiguous and therefore, these exceedances were mapped together to determine the combined horizontal extent:
 - Groundwater sample locations with constituents detected at concentrations exceeding the Groundwater Quality Standards (GWQS) and associated with surface water exceedances are color-coded red and are bold;

- Groundwater sample locations with constituents detected at concentrations exceeding the GWQS which are not associated with surface water are color-coded light red; and,
 - Groundwater sample locations without constituents that were detected at concentrations exceeding the GWQS are color-coded light green.
- o Surface water sample locations with SWQS exceedances are divided into either stream segments of exceedances (denoted on figures with red highlighting indicating the extent of exceedances), or areas of exceedances (denoted on figures with red hatched lines indicating the extent of exceedances):
- Stream segments are defined as portions of a stream that are bounded by narrow physiographic features such as stream channels. Horizontal limits of stream segments exceeding the SWQS are delineated either by compliance samples (green) or by physical boundaries; and,
 - Areas are defined as zones located adjacent to stream segments with broad physiographic feature boundaries, such as ponds or wet areas. Horizontal limits of areas exceeding the SWQS are delineated either by compliance samples (green) or by physical boundaries.
- Figure E-7 presents the composite areal extent of exceedances inclusive of all analytical groups. Analytical samples are presented in the same format as the analytical areal extent figures (described above); and,
 - Figures E-8 through E-10 present site-wide areal extents for each FEC (Total Arsenic, Total Lead, and Total Mercury, respectively). Analytical samples are presented in the same format as the areal extents of analytical groups (described above) with the addition of the following:
 - o The analytical concentrations are presented on the figures for each specific sample location;
 - o Sample locations with constituents that were not detected at concentrations exceeding the SWQS but where the PQL exceeded the SWQS are color-coded blue; and,
 - o Horizontal limits of areal extents are defined based on detected constituent concentrations exceeding the SWQS, delineated to locations where laboratory analysis either did not detect the constituent (blue) or where concentrations were below the SWQS (green). However, the PQLs and MDLs for Method SW-846 6010B for the identified FECs were greater than the established SWQS. Therefore, there is a degree of uncertainty concerning the exact point of compliance presented on the FEC figures.

5.4 WESTERN DRAINAGE AREA ANALYTICAL RESULTS

This section presents and interprets the analytical results of the surface water samples collected from the Western Drainage Area by analytical group. A total of 41 samples were collected within the Western Drainage Area to delineate the horizontal extent of constituents present in surface water exceeding the SWQS.

The surface water samples were analyzed for one or more of the following analytical groups, as indicated by SI exceedances: VOCs, SVOCs, Total Metals, and E&E (Table E-6). A total of ten discrete regions were identified to have constituents present at concentrations exceeding the SWQS, segregated below by analytical group. The following table presents the linear footage for stream segments of exceedances, and square footage for areas of exceedances.

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
VOCs	1	0	30,842
SVOCs	1	173	0
Total Metals	10	2,695	23,427
E&E	4	371	0
Composite	10*	2,725*	36,635*

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the ten identified regions of exceedance, a total of one VOC, one SVOC, three Total Metals, and three E&E constituents were detected at concentrations exceeding the SWQS in Western Drainage, as presented below:

VOCs:							
Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
PCE	UG/L	0.34	17	5	5	0.9 J	6

SVOCS:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
BZBF	UG/L	0.038	3	1	1	1 J	1 J

Total Metals:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
Arsenic	MG/L	0.000017	37	4	4	0.0103 J	0.0498
Lead	MG/L	0.005	37	26	26	0.0081 J	1.02
Mercury	MG/L	0.00005	37	12	12	0.000058 J	0.0026

E&E:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
4-A-DNT	UG/L	6	41	7	1	0.32 J	8.9 J
RDX	UG/L	0.31	41	4	3	0.29 J	9.3
TNT	UG/L	1.1	41	5	3	0.70 J	2.5 J

5.4.1. VOCs

- The surface water results for SW-R-B15-04, SW-R-B15-06/07/08, and SW-R-C15-04 indicate the presence of PCE at concentrations exceeding the SWQS (Figure E-2). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-C15-03	Eastern/downstream direction
SW-R-B15-05	Western/upstream direction

- Note: The northern/downstream horizontal limit of this area has been defined by SWQS compliance identified during the SI.

5.4.2. SVOCs

- The surface water results for SW-R-D16-01 indicate the presence of BZBF and Chrysene at concentrations exceeding the SWQS (Figure E-3). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D16-02	Eastern/downstream direction.

- Note: The western/upstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI. This stream segment is receiving groundwater from a natural underground spring approximately 100-ft. west of SW-R-D16-01, where surface water flow is redirected laterally in opposite directions within this stream.

5.4.3. Total Metals

- The surface water results for SW-R-A15-03/04 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Lead and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-A15-02	Western/upstream direction
SW-R-A15-05	Eastern/downstream direction

- The surface water results for SW-R-A15-06/07, SW-R-B14-01/02, and SW-R-B15-01/02 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Lead and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-A15-05	Western/upstream direction
SW-R- A15-08	Southern/upstream direction
SW-R- B15-03	Eastern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water).
- The surface water results for SW-R-B15-04/05/06 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R- B15-03	Western/upstream direction

- Note: The northern/downstream and eastern/downstream horizontal limits of this area have been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-C15-02 indicate the presence of total Lead at a concentration exceeding the SWQS (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-C15-01	Eastern/upstream direction

- Note: The western/downstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-D15-01/02/03 and SW-R-D16-01/02/03 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-C15-01	Western/downstream direction

- Note: The eastern/downstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI. This stream segment is receiving groundwater from a natural underground spring approximately 100-ft. west of SW-R-D16-01, where surface water flow is redirected laterally in opposite directions within this stream.

- The surface water results for SW-R-E15-02/03 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E15-01	Southern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water).

- The surface water results for SW-R-E15-04/05/06 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E16-01	Southern/downstream direction

- Note: The northwestern/upstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI. The northeastern/upstream horizontal limit has been identified by the physical boundary of this stream (i.e., head water).

- The surface water results for SW-R-E15-07 indicate the presence of total Lead at a concentration exceeding the SWQS (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E15-08	Western/upstream direction
SW-R-E15-09	Northern/upstream direction

- Note: The eastern/downstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.

- The surface water results for SW-R-D14-06/07 indicate the presence of total Lead at concentrations exceeding the SWQS (Figure E-4). The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary

of this stream (i.e., head water). The western/upstream and eastern/downstream horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.

- The surface water results for SW-R-D14-04/05 indicate the presence of total Lead at concentrations exceeding the SWQS (Figure E-4). The northwestern/upstream, northeastern/upstream and southwestern/upstream horizontal limits of this stream segment have been defined by the physical boundaries of this stream (i.e., head water). The eastern/downstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.

5.4.4. E&E

- The surface water results for SW-R-B14-01/02 indicate the presence of one or more of the following E&E constituents at concentrations exceeding the SWQS: TNT and 4-A-DNT (Figure E-6). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-A15-07	Southern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water). The E&E exceedance of this stream segment is attributed to the northern/up-gradient groundwater plume.
- The surface water results for SW-R-E15-04 indicate the presence of RDX at a concentration exceeding the SWQS (Figure E-6). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E15-05	Southern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water).
- The surface water results for SW-R-E15-06 indicate the presence of TNT at a concentration exceeding the SWQS (Figure E-6). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E15-05	Southern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-D14-06/07 indicate the presence of RDX at concentrations above the SWQS (Figure E-6). The northern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water). The western/upstream and eastern/downstream horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.

5.4.5. Western Drainage Area Summary

The analytical groups detected at concentrations exceeding the SWQS are attributed to the following potential sources:

- The VOC (PCE) detected at concentrations exceeding the SWQS at the Facility are not attributed to historic Facility operations. The surface water contamination appears to have been caused by contaminated groundwater discharge from off-site sources to surface water bodies. A large regional chlorinated VOC plume underlies the facility in the region of the Western Drainage Area. The chlorinated VOC plume is derived from off-site sources and has not been attributed to historic operations performed at the Facility. The NJDEP conducted a groundwater investigation of the southern portion of the Facility in March 1999 and based on verbal discussion with NJDEP, the Department concluded the Facility was not a source area for the regional plume;
- SVOCs detected at concentrations exceeding the SWQS at the Facility are comprised primarily of Polynuclear Aromatic Hydrocarbons (PAH) constituents. PAH constituent concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of dissolved PAH concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (i.e., erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the PAH constituents is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies;
- Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become

suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions; and,

- E&E constituents detected at concentrations exceeding the SWQS at the Facility are associated with historic manufacturing operations. The surface water exceedances at SW-R-B14-01/02 are attributed to the groundwater E&E plume at this area (Figure E-6).

5.5 CENTRAL DRAINAGE AREA ANALYTICAL RESULTS

This section presents and interprets the analytical results of the surface water samples collected from the Central Drainage Area by analytical group. A total of 39 samples were collected within the Central Drainage Area to delineate the horizontal extent of constituents present in surface water at concentrations exceeding the SWQS.

The surface water samples were analyzed for one or more of the following analytical groups, as indicated by SI exceedances: SVOCs, Total Metals, Dissolved Metals and E&E (Table E-6). A total of eight discrete regions were identified to have constituents present at concentrations exceeding the SWQS, segregated below by analytical group. The following table presents the linear footage for stream segments, and square footage for the areas of exceedances.

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
SVOCs	2	427	0
Total Metals	8	2,215	7,795
E&E	1	0	2,242
Composite	8*	2,427*	7,795*

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the eight identified regions of exceedance, a total of three SVOCs, five Total Metals, and four E&E constituents were detected at concentrations exceeding the SWQS in Central Drainage, as presented below:

SVOCs:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
2,4-DNT	UG/L	0.11	8	1	1	1 J	1 J
BZAP	UG/L	0.0038	8	1	1	1 J	1 J
BZBF	UG/L	0.038	8	2	2	1 J	2 J

Total Metals:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
Arsenic	MG/L	0.000017	31	16	16	0.0134 J	0.469
Copper	MG/L	1.3	31	26	1	0.0021 J	2.40
Lead	MG/L	0.005	31	24	24	0.0092 J	2.32
Mercury	MG/L	0.00005	31	8	8	0.000075 J	0.0130
Thallium	MG/L	0.00024	31	2	2	0.0104 J	0.0321

E&E:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
2-A-DNT	UG/L	6	39	5	1	0.37 J	16 J
4-A-DNT	UG/L	6	39	5	1	0.60	21 J
RDX	UG/L	0.31	39	2	1	0.30 J	0.52 J
TNT	UG/L	1.1	39	3	1	0.33 J	11 J

5.5.1. SVOCs

- The surface water results for SW-R-D13-03 indicate the presence of 2,4-DNT at a concentration exceeding the SWQS (Figure E-3). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D13-05/07	Southern/downstream direction.

- Note: The northwestern/upstream and northeastern/upstream horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.

- The surface water results for SW-R-F11-01/02 indicate the presence of one or more of the following SVOCs at concentrations exceeding the SWQS: BZAP and BZBF (Figure E-3). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-F11-03	Northeastern/upstream direction.

- Note: The eastern/upstream and southwestern/downstream and horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.

5.5.2. Total Metals

- The surface water results for SW-R-E14-01/02 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-E15-09	Southeastern/downstream direction
SW-R-E14-03	Northern/upstream direction

- Note: The southwestern/downstream horizontal limit of this stream segment has been defined by the physical boundaries of this stream (i.e., termination point).
- The surface water results for SW-R-D13-02 and SW-R-D14-01 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Thallium (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D14-02	Southeastern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-D13-05 indicate the presence of total Lead at a concentration exceeding the SWQS (Figure E-4). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D13-03/04	Northern/upstream direction

- Note: The northwestern/upstream and southeastern/downstream horizontal limits of this area have been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-C12-01/02/03/04 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic and Lead (Figure E-4). The northwestern/upstream and southern/downstream horizontal limits of this stream segment have been defined by the physical boundaries of this stream (i.e., head water and termination point).
- The surface water results for SW-R-D12-04/05/06/07/08 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, Mercury, and Thallium (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D12-01	Southern/downstream direction

- Note: The northern/upstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI. The northwestern/upstream horizontal limit of this stream segment has been defined by the physical boundary of this stream (i.e., head water).
 - The surface water results for SW-R-E11-01/02, SW-R-D11-04, and SW-R-D12-02/03 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The northern/upstream horizontal limits of this stream segment has been defined by the physical boundary of this stream (i.e., head water). The southern/downstream horizontal limits of this stream segment has been defined by SWQS compliance identified during the SI.
 - The surface water results for SW-R-D11-01/02/03 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The northern/upstream and southern/downstream horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.
 - The surface water results for SW-R-F11-01/02 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Copper, Lead, and Mercury (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-F11-03	Northern/upstream direction

- Note: The northeastern/upstream and southern/downstream horizontal limits of this stream segment have been defined by SWQS compliance identified during the SI.

5.5.3. E&E

- The surface water results for SW-R-D14-01 indicate the presence of TNT, 2-A-DNT, 4-A-DNT, and RDX at concentrations exceeding the SWQS (Figure E-6). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-D14-02/03	Southern/downstream direction
SW-R-D13-01/02	Northern/upstream direction

- Note: The western horizontal limit of this area has been defined by the physical boundaries of this area (i.e., pond bank). The E&E exceedance of this area is attributed to the northwestern/up-gradient groundwater plume.

5.5.4. Central Drainage Area Summary

The analytical groups detected at concentrations exceeding the SWQS are attributed to the following potential sources:

- SVOCs detected at concentrations exceeding the SWQS at the Facility are comprised primarily of PAH constituents. PAH constituent concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of dissolved PAH concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (i.e., erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the PAH constituents is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies;
- Non-PAH SVOCs (2,4-DNT) detected at concentrations exceeding the SWQS are associated historic manufacturing operations;
- Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with

the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions; and,

- E&E constituents detected at concentrations exceeding the SWQS at the Facility are associated with historic manufacturing operations. The surface water exceedances at SW-R-D14-01 are attributed to the groundwater E&E plume at this area (Figure E-6).

5.6 EASTERN DRAINAGE AREA

This section presents and interprets the analytical results of the surface water samples collected from the Eastern Drainage Area by analytical group. A total of 15 samples were collected within the Eastern Drainage Area to delineate the horizontal extent of constituents present within surface water at concentrations exceeding the SWQS.

The surface water samples were analyzed for one or more of the following analytical groups, as indicated by SI exceedances; SVOCs, Total Metals, Dissolved Metals and E&E (Table E-6). A total of two discrete regions were identified to have constituents present at concentrations exceeding the SWQS, segregated below by analytical group. The following table presents the linear footage for stream segments, and square footage for the areas of exceedances.

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
Total Metals	2	551	0
Composite	2*	551*	0

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the two identified regions of exceedance, a total of three Total Metals constituents were detected at concentrations exceeding the SWQS in Central Drainage, as presented below:

Total Metals:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
Arsenic	MG/L	0.000017	8	4	4	0.0277	0.185
Lead	MG/L	0.005	8	5	5	0.0334	3.21
Mercury	MG/L	0.00005	8	3	3	0.000079 J	0.0040

5.6.1. Total Metals

- The surface water results for SW-R-G12-04 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic and Lead (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-G12-03	Northern/upstream direction

- Note: The southern/downstream horizontal limit of this stream segment has been defined by SWQS compliance identified during the SI.
- The surface water results for SW-R-G11-01, SW-R-G12-01/02 and SW-R-H11-01 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic, Lead, and Mercury (Figure E-4). The northern/upstream horizontal limit has been defined by the physical boundary (i.e., head water). The southern/downstream horizontal limit has been defined by SWQS compliance identified during the SI. During RI sampling of this area, a small portion of this stream segment was dry and samples could not be collected; therefore, this dry segment is not included in this discussion.

5.6.2. Eastern Drainage Area Summary

The analytical groups detected at concentrations exceeding the SWQS are attributed to the following potential sources:

- Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The

identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions.

5.7 DUCK POND AND TRIBUTARIES DRAINAGE AREA ANALYTICAL RESULTS

This section presents and interprets the analytical results of the surface water samples collected from the Duck Pond and Tributaries Drainage Area by analytical group. A total of 42 samples were collected within the Duck Pond and Tributaries Drainage Area to delineate the horizontal extent of constituents present within surface water at concentrations exceeding the SWQS.

The surface water samples were analyzed for one or more of the following analytical groups, as indicated by SI exceedances: SVOCs, Total Metals, Dissolved Metals, and E&E (Table E-6). A total of three discrete regions were identified to have constituents present at concentrations exceeding the SWQS, segregated below by analytical group. The following table presents the linear footage for stream segments, and square footage for the areas of exceedances.

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
Total Metals	3	188	32,130
Dissolved Metals	1	110	8,232
Composite	3*	298*	36,402*

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the three identified regions of exceedance, a total of five Total Metals and one Dissolved Metal were detected at concentrations exceeding the SWQS in Duck Pond and Tributaries Drainage Area, as presented below:

Total Metals:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range	
						Min.	Max.
Arsenic	MG/L	0.000017	27	3	3	0.0541 J	0.176
Lead	MG/L	0.005	27	12	12	0.0102 J	3.00
Mercury	MG/L	0.00005	27	1	1	0.00023	0.00023
Thallium	MG/L	0.00024	27	2	2	0.104	0.149
Zinc	MG/L	7.4	27	20	1	0.0108 J	7.62

Dissolved Metals:

Constituent	Units	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Number of Samples	Number of Detections	Number of Aquatic Life Chronic Exceedances	Number of Aquatic Life Acute Exceedances	Chronic Concentration Range	
								Min.	Max.
Lead	MG/L	0.0054	0.038	2	2	2	-	0.0085 J	0.0107 J

5.7.1. Total Metals

- The surface water results for SW-R-J5-01/02 and SW-R-K5-07/09/10/11 indicate the presence of one or more of the following Total Metals exceeding the SWQS: Arsenic, Lead, Mercury, Thallium, and Zinc (Figure E-4). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-K5-06	Eastern/down-gradient direction
SW-R-K5-08	Southern/side-gradient direction

- Note: The western/up-gradient horizontal limit of this area has been defined by the physical boundaries of this area (i.e., head water).
- The surface water results for SW-R-L7-02/04 indicate the presence of total Lead at a concentration exceeding the SWQS (Figure E-4). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-L7-01/03/05/07	Southern direction
SW-R-M7-06/08	Eastern direction
SW-R-M6-15/16/18/19/20	Northern direction

- Note: The western horizontal limit of this area has been defined by the physical boundaries of this area (i.e., pond bank).
- The surface water results for SW-R-N5-01/02/03/06 indicate the presence of total Lead at concentrations exceeding the SWQS (Figure E-4). The horizontal limits of this stream segment have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-N5-04/05	Southern/downstream direction

- Note: The northeastern/upstream horizontal limit of this stream segment has been defined by the physical boundaries of this stream (i.e., head water).

5.7.2. Dissolved Metals

- The surface water results for SW-R-N5-04/05 indicate the presence of dissolved Lead at concentrations exceeding the Aquatic Life Chronic SWQS (Figure E-5). The northeastern/upstream horizontal limits of this stream segment have been defined by the physical boundaries of this stream (i.e., head water). The southwestern/downstream horizontal limit of this stream segment has been defined by Aquatic Life SWQS compliance identified during the SI.

5.7.3. Duck Pond and Tributaries Drainage Area Summary

The analytical groups detected at concentrations exceeding the SWQS are attributed to the following potential sources:

- Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The

identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions; and,

- Dissolved Lead detected at concentrations exceeding the SWQS at the Facility is attributed to naturally occurring tannic acid produced from decaying hardwood vegetation (i.e., oak and walnut) in the slow moving surface water present within the upland wetland areas. The presence of tannic acid is visually observable as very dark brown surface water present within this portion of the Facility. Reduced pH conditions due to the presence of naturally occurring tannic acid sufficiently alter the surface water chemistry within the upland wetland areas to allow lead to be present in the dissolved state. Once surface water has moved beyond the confines of the upland wetland areas, the effects of the tannic acid are expected to be eliminated and lead will no longer exist in the dissolved state.

5.8 MISCELLANEOUS PONDS ANALYTICAL RESULTS

This section presents and interprets the analytical results of the surface water samples collected from the Miscellaneous Ponds by analytical group. A total of 15 samples were collected within the Miscellaneous Ponds to delineate the horizontal extent of constituents present within surface water at concentrations exceeding the SWQS.

The surface water samples were analyzed for one or more of the following analytical groups, as indicated by SI exceedances: Total Metals, Dissolved Metals and E&E (Table E-6). A total of two discrete regions were identified to have constituents present at concentrations exceeding the SWQS, segregated below by analytical group. The following table presents the linear footage for stream segments, and square footage for the areas of exceedances.

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
Total Metals	1	0	1,392
Dissolved Metals	1	0	7,587
Composite	2*	0	8,979*

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one

analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the two identified regions of exceedance, a total of two Total Metals and four Dissolved Metals were detected at concentrations exceeding the SWQS in Miscellaneous Ponds, as presented below:

Total Metals:

Constituent	Units	Human Health SWQS	Number of Samples	Number of Detections	Number of Human Health Exceedances	Concentration Range Min.	Max.
Arsenic	MG/L	0.000017	8	1	1	0.0458	0.0458
Lead	MG/L	0.005	8	1	1	0.0271	0.0271

Dissolved Metals:

Constituent	Units	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Number of Samples	Number of Detections	Number of Aquatic Life Chronic Exceedances	Number of Aquatic Life Acute Exceedances	Chronic and Acute Concentration Range Min.	Max.
Copper	MG/L	0.0058	0.0084	7	5	3	3	0.0019 J	0.0724
Lead	MG/L	0.0054	0.038	7	4	4	1	0.0101 J	0.0400
Selenium	MG/L	0.005	0.02	7	1	1	-	0.0103 J	0.0103 J
Zinc	MG/L	0.0781	0.0781	7	7	4	4	0.0091 J	0.504

5.8.1. Total Metals

- The surface water results for SW-R-N7-01 indicate the presence of one or more of the following Total Metals at concentrations exceeding the SWQS: Arsenic and Lead (Figure E-4). The horizontal limits of this area have been defined by SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-M7-04/05	Western direction
SW-R-N7-02	Northern direction

- Note: The southern and eastern horizontal limits of this area have been defined by the physical boundaries of this area (i.e., pond banks).

5.8.2. Dissolved Metals

- The surface water results for SW-R-K5-01/02/03/05 indicate the presence of one or more of the following Dissolved Metals at concentrations exceeding either the Aquatic Life Chronic or Acute SWQS: Copper, Lead, Selenium, and Zinc (Figure E-5). The horizontal limits of this area have been defined by Aquatic Life SWQS compliance at the following delineation sample locations:

Delineation Sample Location	Geographic Location and Flow Direction
SW-R-K5-04	Western direction

- Note: The northern, southern, and eastern horizontal limits of this area have been defined by the physical boundaries of this area (i.e., pond banks).

5.8.3. Miscellaneous Ponds Summary

The analytical groups detected at concentrations exceeding the SWQS are attributed to the following potential sources:

- Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions; and,
- Dissolved Metals detected at concentrations exceeding the SWQS at the Facility are attributed to naturally occurring tannic acid produced from decaying hardwood vegetation (i.e., oak and walnut) in the slow moving surface water present within the upland wetland areas. The presence of tannic acid is visually observable as very dark brown surface water present within this portion of the Facility. Reduced pH conditions due to the presence of naturally occurring tannic acid sufficiently alter the surface water chemistry within the upland wetland areas to allow lead to be present in the dissolved state. Once surface water has moved beyond the confines of the upland wetland areas, the effects of the tannic acid are expected to be eliminated and lead will no longer exist in the dissolved state.

6.0 CONCLUSIONS

The following section provides the conclusions for Volume E of the RIR. These conclusions are based on the evaluation of 272 laboratory analyzed surface water samples (152 RI samples and 120 SI samples) collected throughout the Facility. The SI samples were analyzed for the USEPA Priority Pollutant List (PPL) VOC, SVOC, Total Metals, Dissolved Metals, plus E&E, site related Ethers/Alcohols, and General Chemistry Parameters. The results of SI sampling and analysis were used to select the focused laboratory analysis performed in this RI. Specifically, the RI analyte list is comprised of any constituent identified at concentrations exceeding the applicable comparison criteria presented in the SW/SD-SI.

In addition to laboratory analysis, professional judgment based on extensive historic E&E manufacturing operations was considered. Key personnel included Harry Pascoe (Facility Historian and former Employee), Karl Broton (former Facility Employee), Peter Braxton (former Facility Employee and Area Manager), Raymond Hunt (former Facility Safety and Environmental Manager), James Bevis (present Facility Manager), and Edward Meeks (Energetic Materials Specialist).

The conclusions of each media-specific volume of the RIR are also presented in Volume A, where they are combined and further developed to define the overall site-wide characterization of the Facility. In addition, recommendations for moving forward with further characterization or remediation of the Facility are presented in Volume A.

6.1 SW RI SPECIFIC CONCLUSIONS

The following sections provide the specific conclusions drawn from interpretation of surface water data collected during the RI.

6.1.1. Quality Assurance/Quality Control

The required sample frequencies and analytical suites presented in the RIWP were met for all surface water samples collected during the RI, with the exception of five sample locations that were not collected due to insufficient water at the sample locations.

The data quality objectives established for laboratory analysis of samples collected in the field were met. The evaluation of the laboratory analysis against the USEPA precision, accuracy, representativeness, comparability, and completeness parameters determined that the laboratory data are of known and acceptable quality as qualified. Therefore, the laboratory data generated for the surface water RI are considered valid and usable for decision making purposes.

6.1.2. Surface Water/Groundwater Hydraulic Interaction

Prior to the RI, detailed information did not exist concerning the surface water/groundwater interaction at the Facility. However, staff gauges placed in Duck Pond, Shooting Pond, the unnamed pond within the Dynamite Area, and various streams and miscellaneous ponds located throughout the Facility indicate that surface water and shallow groundwater (water table) are hydraulically connected. The following surface water/groundwater interactions were noted:

- Duck Pond appears to receive groundwater discharge along its western section and recharges groundwater along its northern, southern, and eastern sections.
- Shooting Pond appears to recharge groundwater in all directions due to elevated topography and it is a man made surface water body.
- The unnamed pond in the Dynamite Area appears to primarily receive groundwater discharge from the northern, eastern, and western directions.
- The remaining streams and miscellaneous ponds either receive groundwater discharge or recharge groundwater depending on the local elevations of surface water and groundwater, largely dependant on topography.

6.1.3. Surface Water Mixing/Stratification

Vertical stratification of the surface water column is not present in the streams, wet areas, and shallow ponds located on the Facility. Vertical stratification is prevented from forming due to the shallow depths (less than 3-ft.), consistent disturbance from precipitation, and channel morphology.

Vertical stratification of the surface water column may be present within Duck Pond and Shooting Pond, the deepest surface water bodies present at the facility. Duck Pond's average depth is approximately 6-ft. and Shooting Pond's average depth is approximately 15-ft.

6.1.4. Analytical Results

The results of the laboratory analysis of the surface water samples identified a total of 25 discrete stream segments/areas site-wide with constituents detected at concentrations exceeding the SWQS, presented below by analytical group:

Analytical Group	Number of Discrete Stream Segment/ Area Exceedances	Linear Footage of Discrete Stream Segment Exceedances	Square Footage of Discrete Area Exceedances
VOCs	1	0	26,250
SVOCs	3	650	0
Total Metals	24	6,050	65,713
Dissolved Metals	2	100	16,563
E&E	5	500	1,250
Composite	25*	6,350*	88,901*

* = The number of composite stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, and square footage of discrete area exceedances represents the number of individual stream segments or areas with constituents present at concentrations exceeding the SWQS incorporating all analytical groups. It is possible for an individual stream segment or area to have identified more than one analytical group with constituents present at concentrations exceeding the GWQS. Therefore, the composite number may not represent the sum of the stream segments/areas of exceedances, linear footage of discrete stream segment exceedances, or square footage of discrete area exceedances divided into analytical groups.

Within the 25 identified discrete stream segments/areas with exceedances, the results of the surface water sample laboratory analysis identified one VOC, three SVOCs, six Total Metals, four Dissolved Metals, and four E&E constituents at concentrations exceeding the SWQS;

- PCE detected at concentrations exceeding the SWQS in the southern Western Drainage Area is not associated with historic Facility operations. The PCE is attributed to the large regional chlorinated VOC plume that originates from offsite sources. This large regional chlorinated VOC plume has migrated through time and currently underlies a portion of the Facility in the region of the Western Drainage Area. Groundwater recharges surface water in this area causing the PCE derived from the offsite sources to enter surface water. The NJDEP conducted a groundwater investigation of the southern portion of the Facility in March 1999 and based on verbal discussion with NJDEP, the Department concluded the Facility was not a source area for the regional VOC plume;
- SVOCs detected at concentrations exceeding the SWQS in the Western Drainage Area and Central Drainage Area are comprised primarily of PAH constituents. PAH constituent concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of dissolved PAH concentrations. The very fine

- grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the PAH constituents is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies;
- The detected concentrations of 2,4-DNT (SVOC) at concentrations exceeding the SWQS in the Central Drainage Area are associated with historic manufacturing operations;
 - Total Metals concentrations detected above the SWQS are attributed to the presence of very fine grained sediments (silt sized and smaller) that have become suspended within the surface water column. These concentrations are not considered representative of Dissolved Metals concentrations. The very fine grained sediments have become suspended through a variety of natural stream processes (e.g. erosion, normal runoff, and flood events). The presence of the suspended sediment is transient, and influenced by factors such as the duration and intensity of precipitation events and seasonal variations in ground cover. The identified source of the Total Metals is the historic fill used to improve the grade of the Facility, recover unusable land, and establish numerous narrow gauge rail beds within close proximity to the Facility's surface water bodies. Additionally, to lesser extent Total Metal exceedances in surface water are also associated with the erosion of metals from areas where heterogeneous deposition of metals in soil occurred as a result of historical fires and explosions;
 - Dissolved Metals detected at concentrations exceeding the SWQS in Duck Pond and Tributaries Drainage and Miscellaneous Ponds Drainage are attributed to naturally occurring tannic acid produced from decaying hardwood vegetation (e.g. oak and walnut) in the slow moving surface water present within the upland wetland areas. The presence of tannic acid is observed as very dark brown surface water present within this portion of the Facility. The field analyzed pH values measured at the sample locations where dissolved metal constituents are detected at concentrations above the SWQS indicate slightly acidic conditions (Duck Pond and Tributaries had a pH of 5 and Miscellaneous Ponds had a pH of 6). Slightly acidic pH conditions due to the presence of naturally occurring tannic acid sufficiently alter the surface water chemistry within the upland wetland areas to allow the metal constituents to be present in the dissolved state. Once surface water has moved beyond the confines of the upland wetland areas the effects of the tannic acid are diluted and metal constituents less commonly occur in the dissolved state;
 - E&E constituents detected at concentrations exceeding the SWQS in Western Drainage Area and Central Drainage Area is associated with historic manufacturing operations. The E&E SWQS exceedances at SW-R-B14-01/02 located in the Western Drainage Area and SW-R-D14-01 located in the Central

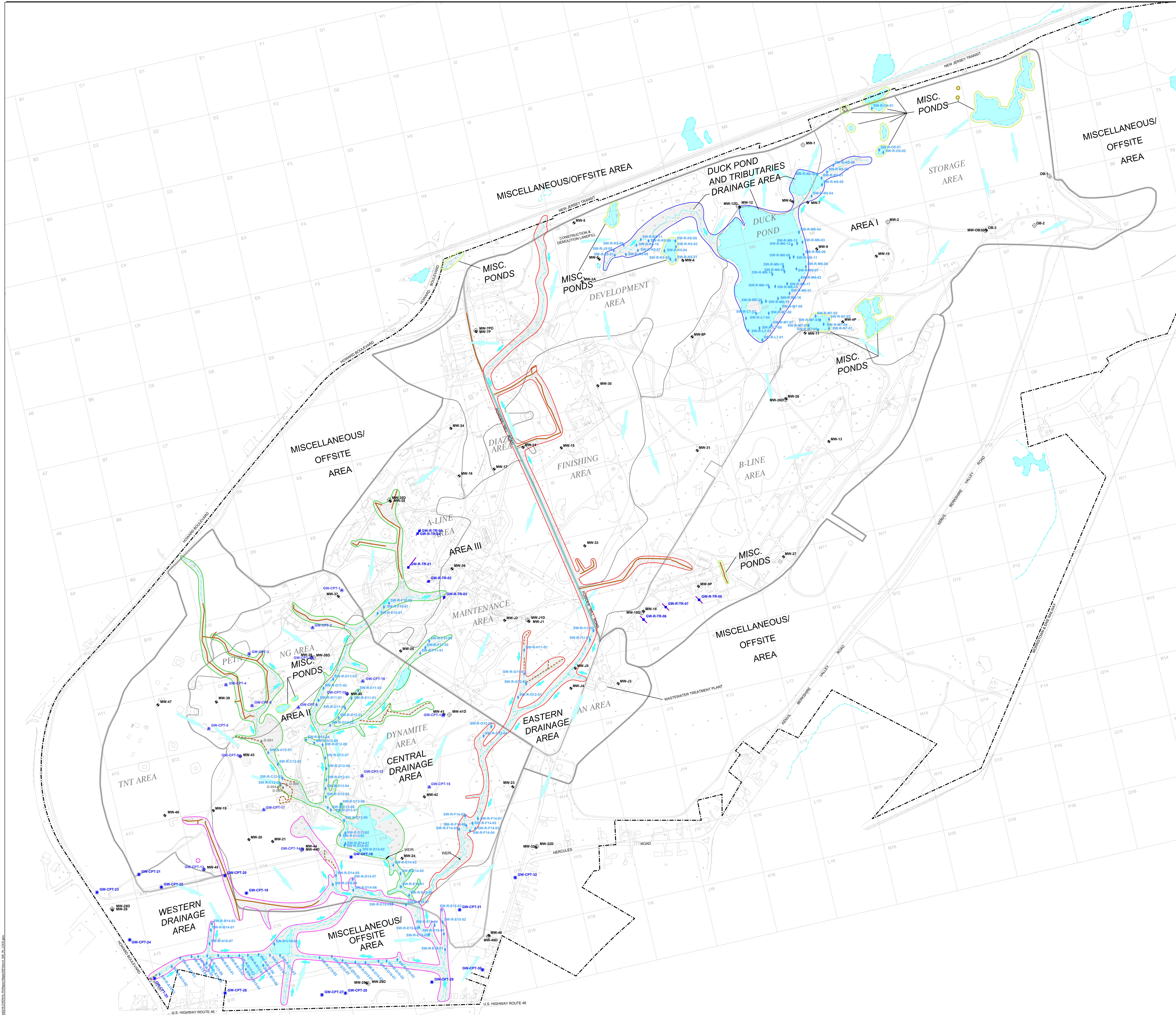
Drainage Area are attributed to influence from the E&E groundwater plume present within these areas.

6.2 GENERAL CONCLUSION

The Kenvil Facility was operational for approximately 125 years and represented a major E&E manufacturer for every war and conflict fought by the United States and its allies throughout the 20th century. In addition to military production the facility also substantially supported mining, construction, and oil exploration activities.

Surface water quality at the Kenvil Facility is well defined and all constituents detected at concentrations above the SWQS are contained within the boundary of the Facility. Considering the long operational history of Facility the surface water quality is considerably unaffected by historic site operations.

FIGURES



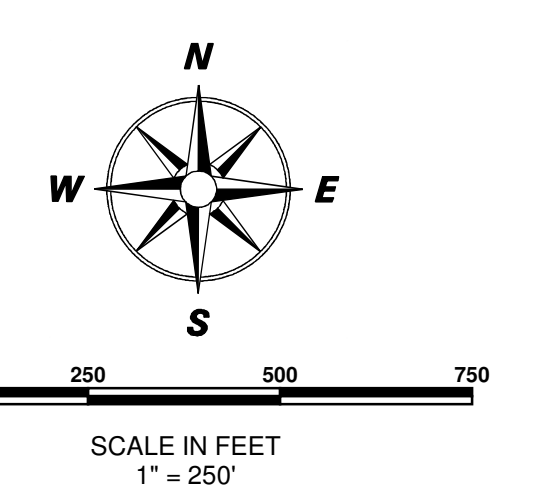
REV	DATE	BY	DESCRIPTION

LEGEND:

- SURFACE WATER SAMPLE LOCATION
- SHALLOW MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- PROPOSED SURFACE WATER SAMPLE THAT WAS NOT COLLECTED
- E&E SCREENING CONE PENETROMETER (CPT) SAMPLE LOCATION
- CONE PENETROMETER (CPT) SAMPLE LOCATION
- TRENCH SAMPLE LOCATION
- EASTERN DRAINAGE AREA
- CENTRAL DRAINAGE AREA
- WESTERN DRAINAGE AREA
- DUCK POND AND TRIBUTARIES DRAINAGE AREA
- MISCELLANEOUS PONDS
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 5)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 6)
- TRENCH FOR HYDRAULIC OIL INVESTIGATION
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

NOTES:

1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
2. THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED "HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCORD 0800, CLASSIFICATION 21045, FILE CODE SINE REVISION 1" REVISED TO JUNE 11, 1970, PROVIDED BY REPRESENTATIVES OF HERCULES, INC., AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND NOT FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
3. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GWSI) REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SI-SI) REPORT (MWH, 2004).
4. SAMPLE LOCATIONS PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION.
5. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
6. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.
7. FIVE SURFACE WATER SAMPLES WERE PROPOSED IN THE RWP THAT WERE NOT COLLECTED DUE TO INSUFFICIENT WATER AT THE SAMPLE LOCATION (D-001, D-004, D-007, D-008, MIS-001). THESE SAMPLE LOCATIONS WERE REVISITED AFTER A HEAVY PRECIPITATION EVENT; HOWEVER, THE PRECIPITATION EVENT DID NOT PROVIDE SUFFICIENT WATER TO COLLECT A SAMPLE.



REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER -
SAMPLE LOCATION MAP





REV	DATE	BY	DESCRIPTION

LEGEND:

- INFERRED AREAL EXTENT EXCEEDING SWQS
- RI SURFACE WATER SAMPLE LOCATION WITH SWQS EXCEEDANCE
- RI SURFACE WATER SAMPLE LOCATION WITH NO SWQS EXCEEDANCE
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 9)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- TRENCH FOR HYDRAULIC OIL INVESTIGATION
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

NOTES:

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- THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED: HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCOUNT 9500, CLASSIFICATION 21045, FILE CODE SMC REVISION 1* REVISED TO JUNE 11, 1979 PROVIDED BY REPRESENTATIVES OF HERCULES, INC. AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND NOT FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
- GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GS-SI) REPORT (MMH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SD-SI) REPORT (MMH, 2004).
- GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP GWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRCWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1995.
- SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRCWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1995.
- AREAL EXTENTS WERE DETERMINED FOR SAMPLE LOCATIONS THAT EXCEEDED THE GROUNDWATER AND SURFACE WATER CRITERIA BY ANALYTICAL GROUP. GROUNDWATER SAMPLE LOCATIONS WERE INCLUDED IN ORDER TO ILLUSTRATE THE RELATIONSHIP BETWEEN GROUNDWATER AND SURFACE WATER.
- ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION.
- ONLY SAMPLE LOCATIONS SAMPLED FOR THIS ANALYTICAL GROUP ARE DISPLAYED ON THIS AREAL EXTENT FIGURE.
- SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
- DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.

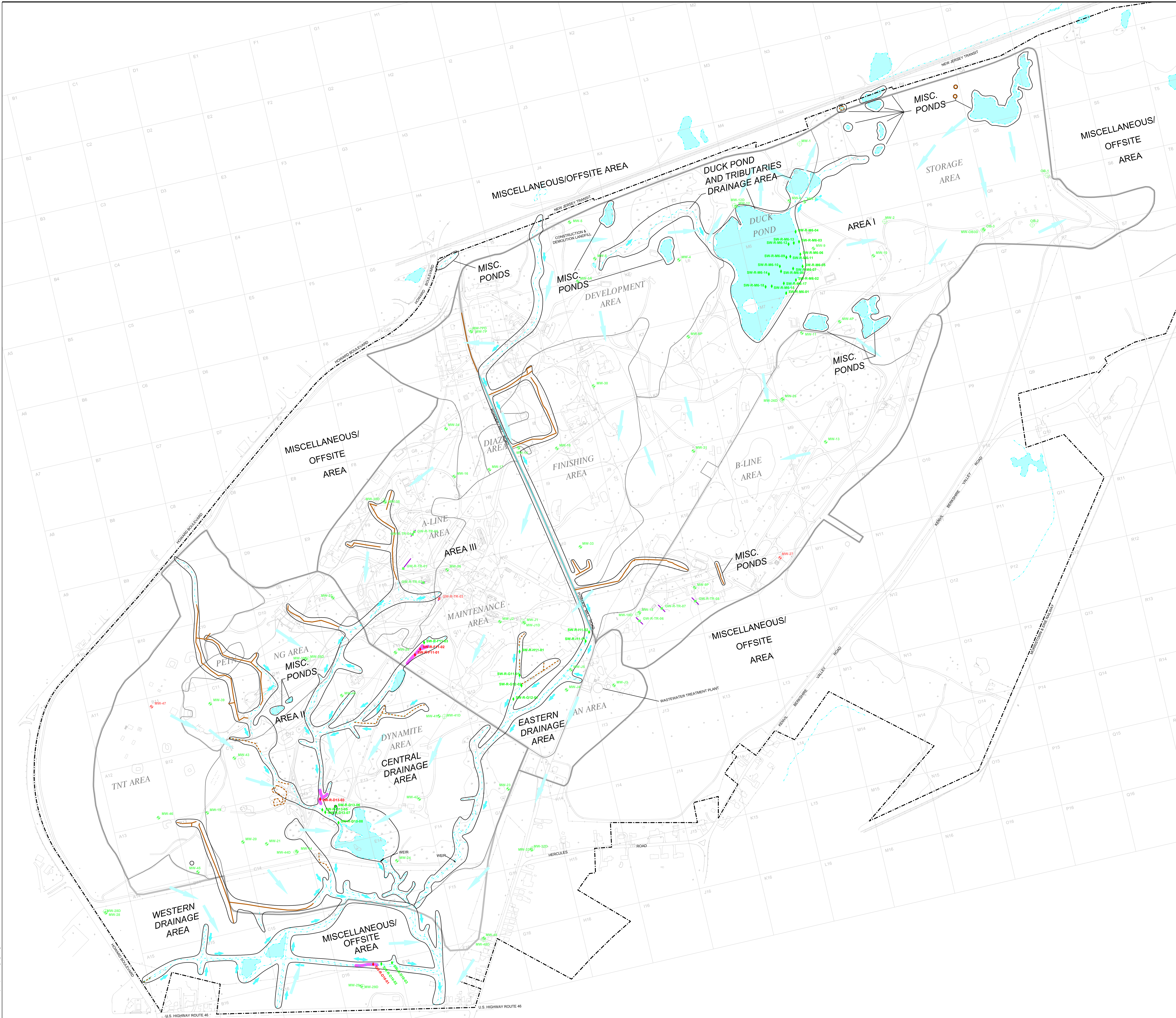
SCALE IN FEET
1" = 250'

REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER -
VOC EXCEEDANCE MAP WITH AREAL EXTENT

FIGURE E - 2

Southwestern Environmental Services, 10000 Highway 46, Suite 200, Kenvil, NJ 07034



REV	DATE	BY	DESCRIPTION

LEGEND:

- INFERRED AREAL EXTENT EXCEEDING SVOCs
- SW SURFACE WATER SAMPLE LOCATION WITH SVOCs EXCEEDANCE
- SW SURFACE WATER SAMPLE LOCATION WITH NO SVOCs EXCEEDANCE
- SHALLOW MONITORING WELL LOCATION WITH GWS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH GWS EXCEEDANCE, AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 9)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- TRENCH FOR HYDRAULIC OIL INVESTIGATION
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
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- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

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- THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DERIVED FROM A MAP ENTITLED "HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCOUNT 9500, CLASSIFICATION 21045, FILE CODE ONE REVISION 1" REVISION TO JUNE 11, 1970, PROVIDED BY REPRESENTATIVES OF HERCULES, INC., AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND NOT FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
- GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GWSI) REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEEDMAY SITE INVESTIGATION (SWSI) REPORT (MWH, 2004).
- GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
- SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NAWQC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1998.
- AREAL EXTENTS WERE DETERMINED FOR SAMPLE LOCATIONS THAT EXCEEDED THE GROUNDWATER AND SURFACE WATER CRITERIA BY ANALYTICAL GROUP. GROUNDWATER SAMPLE LOCATIONS WERE INCLUDED IN ORDER TO ILLUSTRATE THE RELATIONSHIP BETWEEN GROUNDWATER AND SURFACE WATER.
- ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION.
- ONLY SAMPLE LOCATIONS SAMPLED FOR THIS ANALYTICAL GROUP ARE DISPLAYED ON THIS AREAL EXTENT FIGURE.
- SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
- DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.

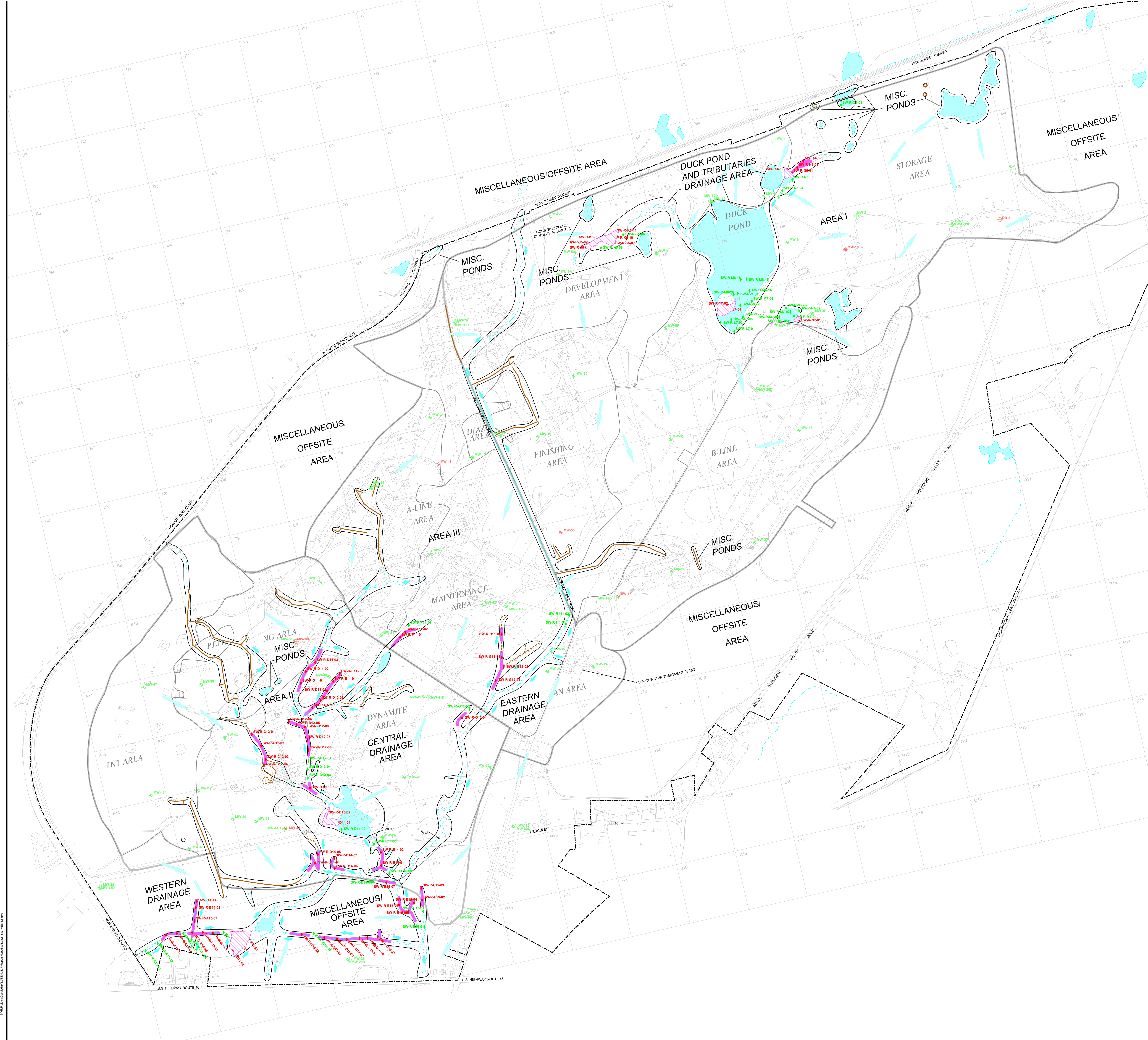
SCALE IN FEET
1" = 250'

REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER -
SVOCs EXCEEDANCE MAP WITH AREAL EXTENT

MWH

FIGURE E - 3



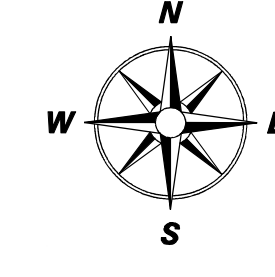
REV	DATE	BY	DESCRIPTION

LEGEND:

- INFERRED AREAL EXTENT EXCEEDING SWQS
- RI SURFACE WATER SAMPLE LOCATION WITH SWQS EXCEEDANCE
- RI SURFACE WATER SAMPLE LOCATION WITH NO SWQS EXCEEDANCE
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- J INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- U INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 9)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

NOTES:

1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
2. THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED, HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCOUNT 9500, CLASSIFICATION 01045, FILE CODE SHE REVISION 1, REVISED TO JUNE 11, 1970, PROVIDED BY REPRESENTATIVES OF HERCULES, INC., AND THE TAX MAP OF THE TOWNSHIP OF ROSBORO AND NOT FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
3. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GR-SI) REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW-SI) REPORT (MWH, 2004).
4. GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
5. SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRCWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1995.
6. AREAL EXTENTS WERE DETERMINED FOR SAMPLE LOCATIONS THAT EXCEEDED THE GROUNDWATER AND SURFACE WATER CRITERIA BY ANALYTICAL GROUP. GROUNDWATER SAMPLE LOCATIONS WERE INCLUDED IN ORDER TO ILLUSTRATE THE RELATIONSHIP BETWEEN GROUNDWATER AND SURFACE WATER.
7. ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION.
8. ONLY SAMPLE LOCATIONS SAMPLED FOR THIS ANALYTICAL GROUP ARE DISPLAYED ON THIS AREAL EXTENT FIGURE.
9. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
10. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.



SCALE IN FEET
1" = 250'

REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY
SURFACE WATER -
TOTAL METALS EXCEEDANCE MAP WITH
AREAL EXTENT

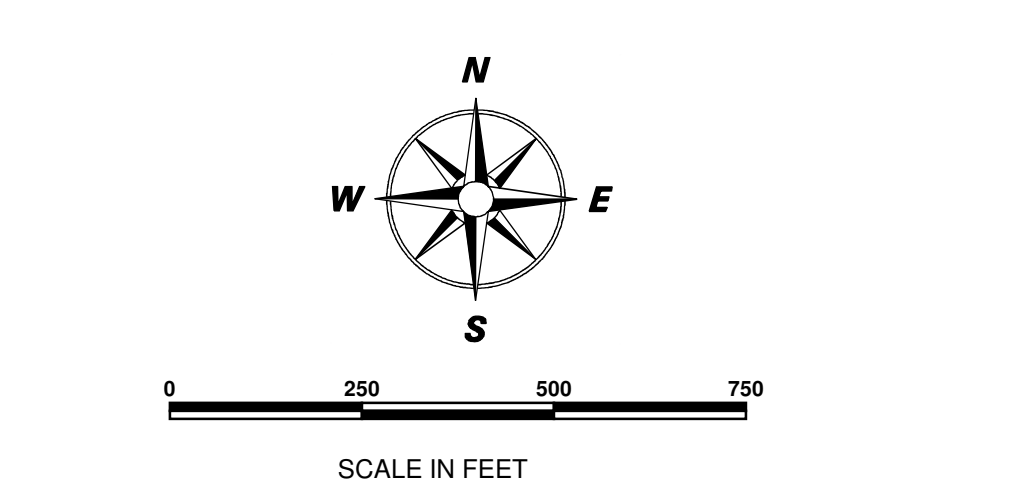




- LEGEND:**
- INFERRED AREAL EXTENT EXCEEDING THE AQUATIC LIFE ACUTE SWQS
 - INFERRED AREAL EXTENT EXCEEDING THE AQUATIC LIFE CHRONIC SWQS
 - RI SURFACE WATER SAMPLE LOCATION WITH SWQS - AQUATIC LIFE ACUTE EXCEEDANCE
 - RI SURFACE WATER SAMPLE LOCATION WITH SWQS - AQUATIC LIFE CHRONIC EXCEEDANCE
 - RI SURFACE WATER SAMPLE LOCATION WITH NO SWQS - AQUATIC LIFE ACUTE OR CHRONIC EXCEEDANCE

- J INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND HAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- U INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 9)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

- NOTES:**
1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
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 3. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GW-SI) REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SO-SI) REPORT (MWH, 2004).
 4. GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY REGION III RISK-BASED CRITERIA (EPA REGION III RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION III RISK-BASED CRITERIA (EPA REGION III RBC), OCTOBER 2006.
 5. SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NAWQC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1998.
 6. AREAL EXTENTS WERE DETERMINED FOR SAMPLE LOCATIONS THAT EXCEEDED THE GROUNDWATER AND SURFACE WATER CRITERIA BY ANALYTICAL GROUP. GROUNDWATER SAMPLE LOCATIONS WERE INCLUDED IN ORDER TO ILLUSTRATE THE RELATIONSHIP BETWEEN GROUNDWATER AND SURFACE WATER.
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 9. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
 10. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.





REV	DATE	BY	DESCRIPTION

LEGEND:

- INFERRED AREAL EXTENT EXCEEDING SWQS OR GWQS, AS APPLICABLE
- RI SURFACE WATER SAMPLE LOCATION WITH SWQS EXCEEDANCE
- RI SURFACE WATER SAMPLE LOCATION WITH NO SWQS EXCEEDANCE
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- E&E SCREENING CONE PENETROMETER (CPT) LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- E&E SCREENING CONE PENETROMETER (CPT) LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- E&E SCREENING CONE PENETROMETER (CPT) LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- E&E SCREENING CONE PENETROMETER (CPT) LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- CONE PENETROMETER (CPT) LOCATION WITH GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- CONE PENETROMETER (CPT) LOCATION WITH GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- CONE PENETROMETER (CPT) LOCATION WITH NO GWQS EXCEEDANCE, AFFECTING SURFACE WATER
- CONE PENETROMETER (CPT) LOCATION WITH NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 9)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

FOR CPT LOCATIONS

15 FT BGS	NO GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
30 FT BGS	GWQS EXCEEDANCE, AFFECTING SURFACE WATER
60 FT BGS	GWQS EXCEEDANCE, NOT AFFECTING SURFACE WATER
100 FT BGS	NOT ANALYZED

NOTES:

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- GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GW-SI) REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SWQD-SI) REPORT (MWH, 2004).
- GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), JUNE 2000; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
- SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1995.
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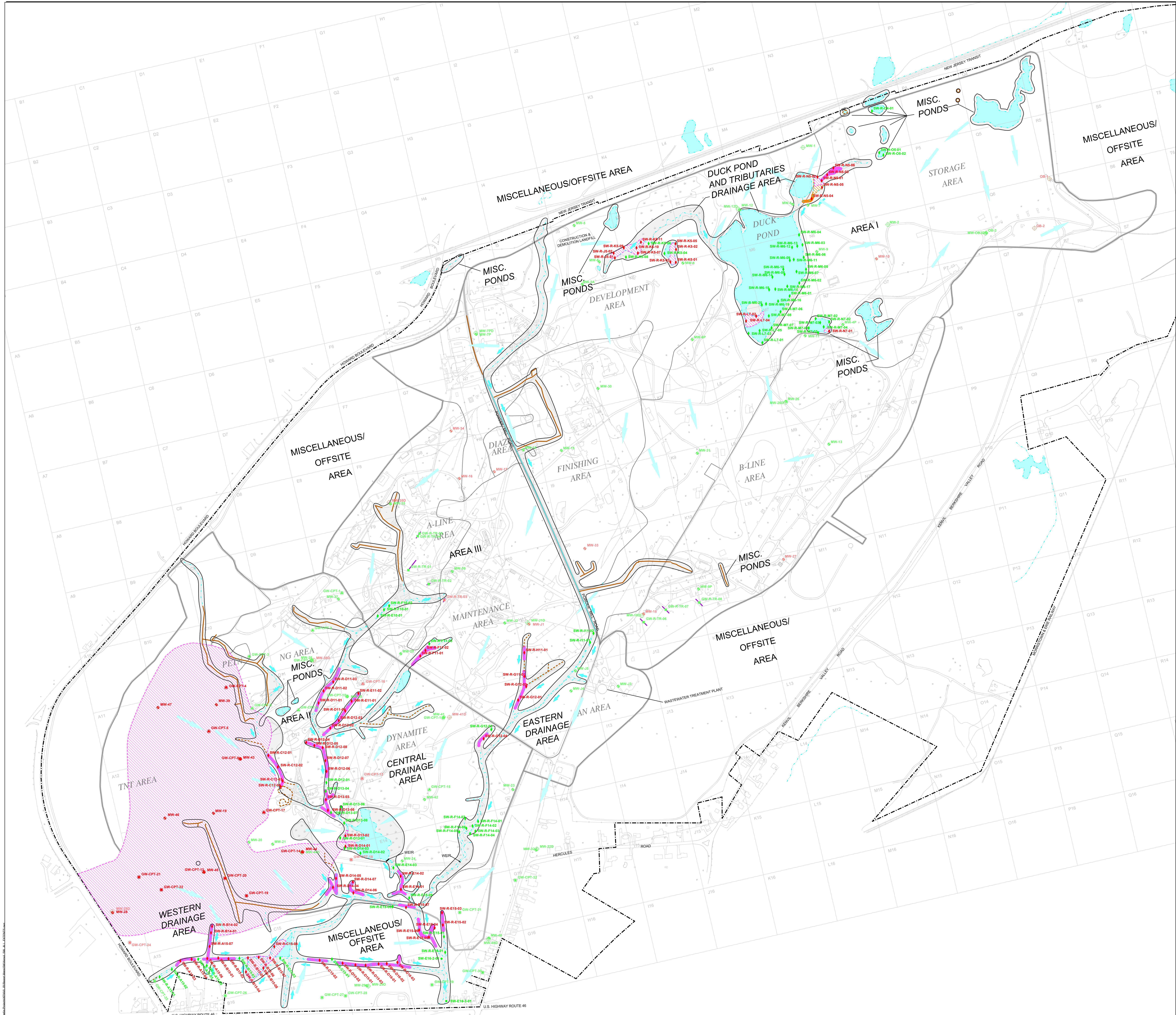
SCALE IN FEET
1" = 250'

REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER -
E&E EXCEEDANCE MAP WITH AREAL EXTENT

MWH

FIGURE E - 6



REV	DATE	BY	DESCRIPTION

LEGEND:

- INFERRED COMPOSITE AREAL EXTENT INCLUDING ANALYTICAL GROUPS EXCEEDING THE HUMAN HEALTH SWQS, GWS, OR THE AQUATIC LIFE ACUTE SWQS FOR DISSOLVED METALS, AS APPLICABLE
- INFERRED COMPOSITE AREAL EXTENT EXCEEDING THE AQUATIC LIFE CHRONIC SWQS FOR DISSOLVED METALS
- RI SURFACE WATER SAMPLE LOCATION WITH SWQS EXCEEDANCE
- RI SURFACE WATER SAMPLE LOCATION WITH NO SWQS EXCEEDANCE
- SI SURFACE WATER SAMPLE LOCATION WITH NO SWQS EXCEEDANCE
- SHALLOW MONITORING WELL LOCATION WITH GWS EXCEEDANCE, AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- SHALLOW MONITORING WELL LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- DEEP MONITORING WELL LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- TRENCH SAMPLE LOCATION WITH NO GWS EXCEEDANCE, NOT AFFECTING SURFACE WATER
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT AND/OR NUMBER INDICATES AN ESTIMATED VALUE
- INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED BELOW THE REPORTING LIMIT AND/OR NUMBER INDICATES THE DETECTION LIMIT
- SURFACE WATER FLOW DIRECTION
- GROUNDWATER FLOW DIRECTION
- DRY STREAM SEGMENT AREA, OR FORMER DITCH (REFER TO NOTE 8)
- STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 10)
- TRENCH FOR HYDRAULIC OIL INVESTIGATION
- WEIR
- PROPERTY LINE
- WATER FEATURE
- REMEDIAL AREA
- FORMER OPERATIONAL AREA
- UTILITY POLE
- LIGHT POLE
- WET AREA
- FENCE
- PROPERTY LINE
- GUIDE RAIL
- RAILROAD
- SMALL GAUGE RAIL
- PERIMETER OF WET AREA
- CULVERT
- STREAMS
- TRAIL/DIRT ROAD
- ELECTRIC SUBSTATION
- BUILDING

NOTES:

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- GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION (GW-SI) REPORT (MAH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SO-SI) REPORT (MAH, 2004).
- GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION III RISK BASED CRITERIA (EPA REGION III RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION III RISK BASED CRITERIA (EPA REGION III RBC), OCTOBER 2006.
- SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (AWQC), 1995.
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- ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION. SITE INVESTIGATION SAMPLES SW-E16-2-01 AND SW-E16-3-01 ARE INCLUDED ON THIS FIGURE TO INDICATE NO SURFACE WATER CONTAMINATION EXISTS THE FACILITY. THE ANALYTICAL RESULTS OF THESE TWO SAMPLES HAVE BEEN COMPARED TO THE CURRENT SWQS.
- SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOIL IN THE REMEDIAL INVESTIGATION REPORT.
- DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION. HOWEVER SATURATED SEDIMENTS ARE PRESENT.
- AREAL EXTENTS HAVE INCORPORATED INFERRED HORIZONTAL EXTENTS UTILIZING THE REC AREAL EXTENT FIGURES, AS APPLICABLE.
- REMEDIAL INVESTIGATION SAMPLES SW-R-D13-04 AND SW-R-D13-07 (CENTRAL DRAINAGE) WERE NOT ANALYZED FOR ALL ANALYTICAL GROUPS. TO BE CONSERVATIVE THESE TWO POINTS ARE NOT CONSIDERED POINTS OF COMPLIANCE ON THIS FIGURE.

0 250 500 750 N

SCALE IN FEET
1" = 250'

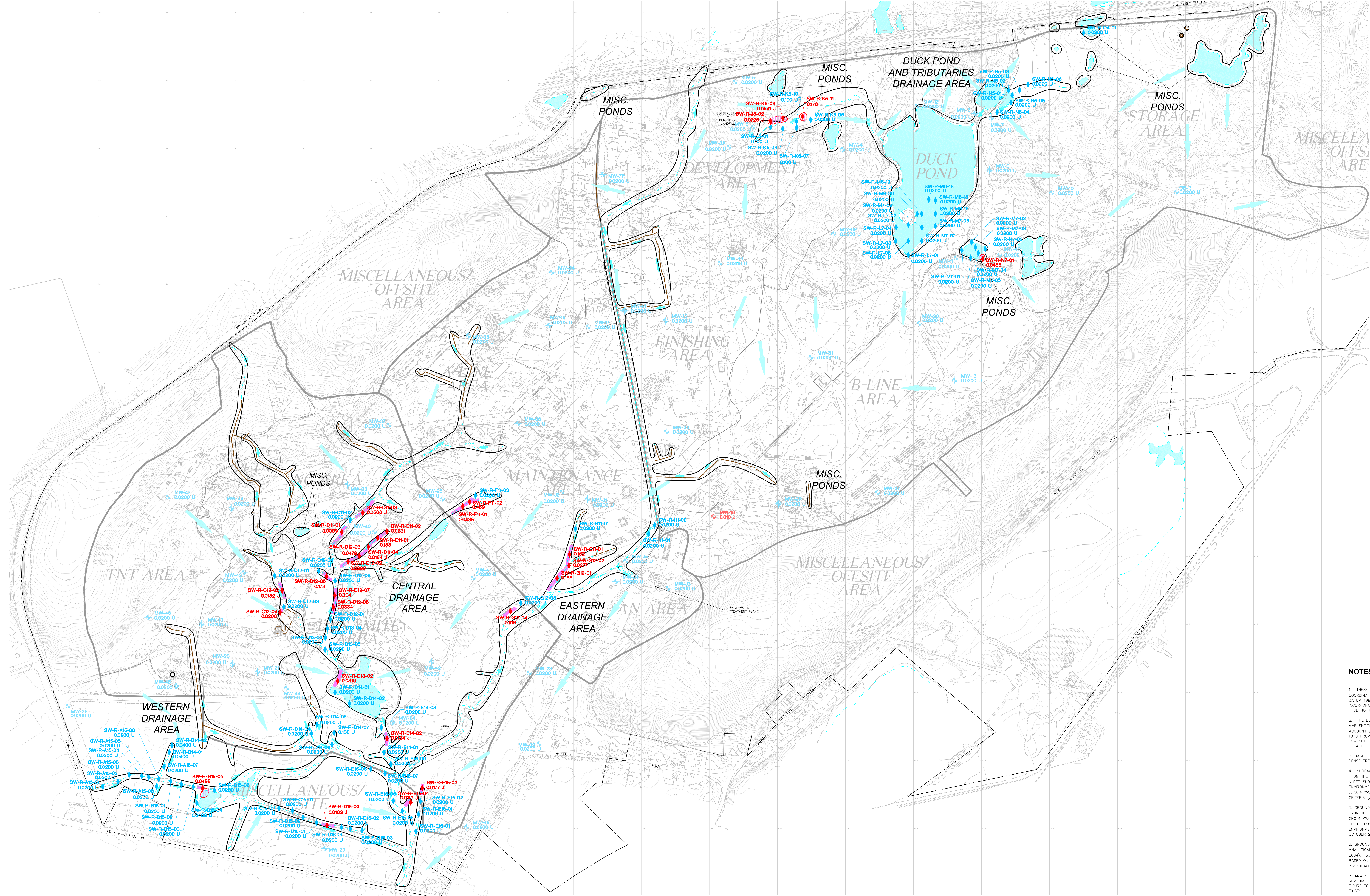
**REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVAL WORKS FACILITY**

**SURFACE WATER -
SITE WIDE AREAL EXTENT OF EXCEEDANCES**

MWH

FIGURE E - 7

REV	DATE	BY	DESCRIPTION



NOTES:

1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND THE GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
2. THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED "HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT DRG, ACCOUNT 9500, CLASSIFICATION 2104A, FILE CODE 546 REVISION 1" REVISED TO JUNE 11, 1970 PROVIDED BY REPRESENTATIVES OF HERCULES, INC. AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND 1021 FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
3. DASHED TOPOGRAPHIC CONTOURS INDICATE AREAS WHERE THE GROUND IS OCCUPIED BY DENSE TREES OR SHADOWS. THESE AREAS MAY NOT CONFORM TO ACCURACY STANDARDS.
4. SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRCWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (EPA AWQC), 1995.
5. GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
6. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SO-9) REPORT (MWH, 2004).
7. ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION. GROUNDWATER ANALYTICAL RESULTS ARE INCLUDED ON THIS FIGURE TO IDENTIFY WHERE A RELATIONSHIP BETWEEN SURFACE WATER AND GROUNDWATER EXISTS.
8. THE SURFACE WATER QUALITY STANDARD (SWQS) FOR TOTAL ARSENIC IS 0.000017 mg/L [NJDEP SWQS, 2006].
9. THE GROUNDWATER QUALITY STANDARD (GWQS) FOR TOTAL ARSENIC IS 0.003 mg/L [NJDEP GWQS 2005].
10. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOL IN THE REMEDIAL INVESTIGATION REPORT.
11. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.
12. AREAS OF EXCEEDANCE ARE DEFINED BASED ON DETECTED CONSTITUENT CONCENTRATIONS EXCEEDING THE NJDEP SWQS DELINEATED TO LOCATIONS WHERE LABORATORY ANALYSIS EITHER DID NOT DETECT THE CONSTITUENT OR WHERE CONCENTRATIONS WERE BELOW THE NJDEP SWQS. HOWEVER, THE LABORATORY METHOD DETECTION LIMIT (MDL) AND PRACTICAL QUANTIFICATION LIMIT (PQL) FOR METHOD SW-846 6010B WERE GREATER THAN THE ESTABLISHED NJDEP SWQS. THEREFORE, THERE IS A DEGREE OF UNCERTAINTY CONCERNING THE EXACT POINT OF COMPLIANCE FOR TOTAL ARSENIC PRESENTED ON THIS FIGURE.

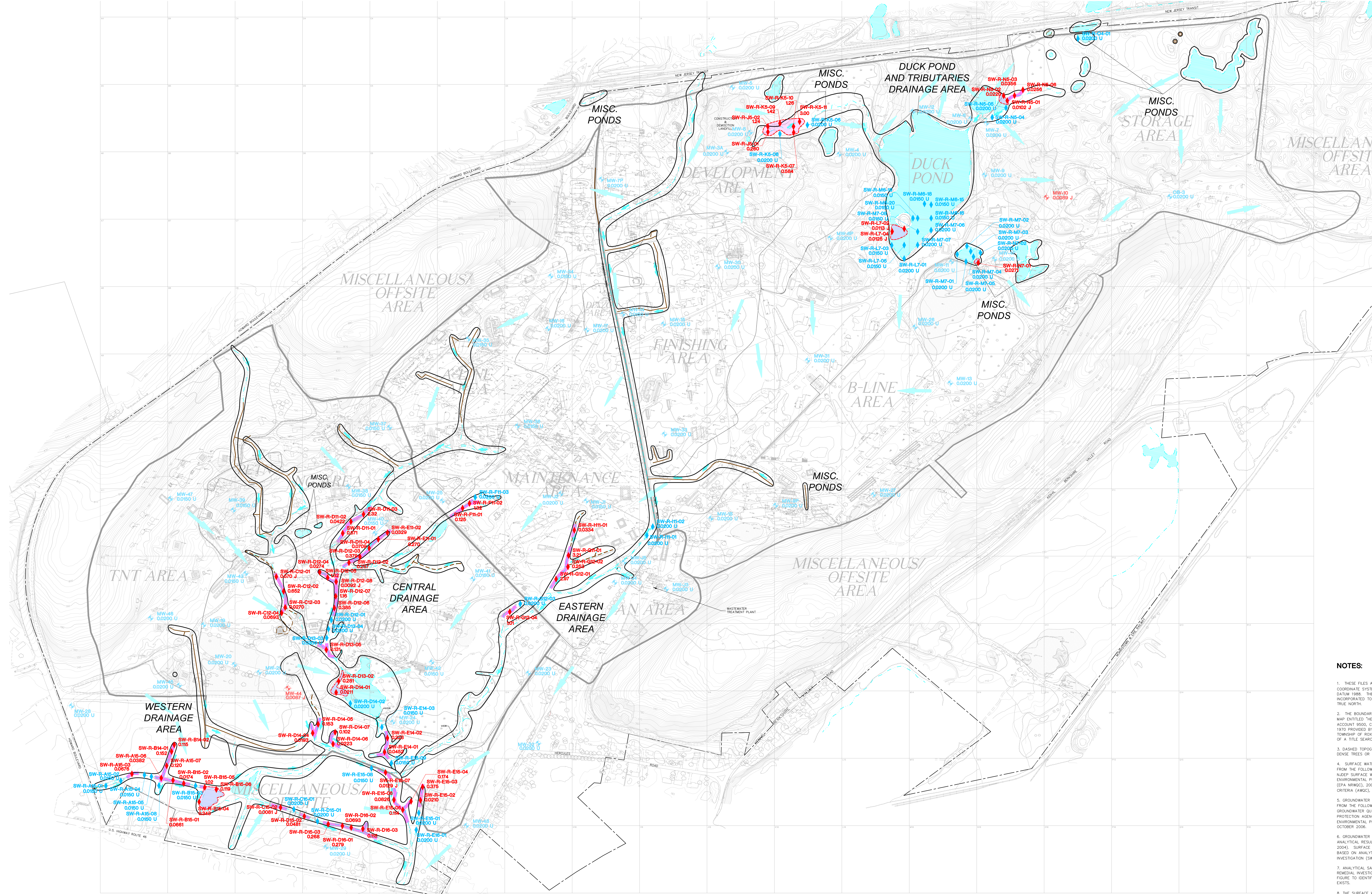
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HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER - TOTAL ARSENIC
AREAL EXTENT MAP



FIGURE E-8

REV	DATE	BY	DESCRIPTION



NOTES:

1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND THE GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
2. THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED "HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCOUNT 9500, CLASSIFICATION 2104A, FILE CODE 546, REVISION 1" REVISED TO JUNE 11, 1970 PROVIDED BY REPRESENTATIVES OF HERCULES, INC. AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND 1021 FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
3. DASHED TOPOGRAPHIC CONTOURS INDICATE AREAS WHERE THE GROUND IS OCCUPIED BY DENSE TREES OR SHADOWS. THESE AREAS MAY NOT CONFORM TO ACCURACY STANDARDS.
4. SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (EPA AWQC), 1995.
5. GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
6. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SO-9) REPORT (MWH, 2004).
7. ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION. GROUNDWATER ANALYTICAL RESULTS ARE INCLUDED ON THIS FIGURE TO IDENTIFY WHERE A RELATIONSHIP BETWEEN SURFACE WATER AND GROUNDWATER EXISTS.
8. THE SURFACE WATER QUALITY STANDARD (SWQS) FOR TOTAL LEAD IS 0.005 mg/L [NJDEP SWQS, 2006].
9. THE GROUNDWATER QUALITY STANDARD (GWQS) FOR TOTAL ARSENIC IS 0.005 mg/L [NJDEP GWQS 2005].
10. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOL IN THE REMEDIAL INVESTIGATION REPORT.
11. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.
12. AREAS OF EXCEEDANCE ARE DEFINED BASED ON DETECTED CONSTITUENT CONCENTRATIONS EXCEEDING THE NJDEP SWQS. DETERMINED TO LOCATIONS WHERE LABORATORY ANALYSIS EITHER DID NOT DETECT THE CONSTITUENT OR WHERE CONCENTRATIONS WERE BELOW THE NJDEP SWQS. HOWEVER, THE LABORATORY METHOD DETECTION LIMIT (MDL) AND PRACTICAL QUANTIFICATION LIMIT (PQL) FOR METHOD SW-846-6010B WERE GREATER THAN THE ESTABLISHED NJDEP SWQS. THEREFORE, THERE IS A DEGREE OF UNCERTAINTY CONCERNING THE EXACT POINT OF COMPLIANCE FOR TOTAL LEAD PRESENTED ON THIS FIGURE.

LEGEND:

- | | | |
|--|--|---|
| WEIR | BERM/BARRICADE/BUNKER | INFERRED AREAL EXTENT EXCEEDING SWQS |
| WATER FEATURE | CONTAINMENT BASIN | J |
| REMEDIAL AREA | MISCELLANEOUS REMNANT ACTIVITY AREA | U |
| FORMER OPERATIONAL AREA | TOPOGRAPHIC CONTOUR (5 FOOT INTERVAL) | INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE |
| UTILITY POLE | RI SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT EXCEEDS SWQS (mg/L) | INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT |
| LIGHT POLE | RI SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DOES NOT EXCEED SWQS (mg/L) | FLOW DIRECTION OF SURFACE WATER |
| WET AREA | RI SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DETECTION LIMIT EXCEEDS SWQS (mg/L) | FLOW DIRECTION OF GROUNDWATER |
| FENCE | SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT EXCEEDS GWQS (mg/L), AFFECTING SURFACE WATER | |
| PROPERTY LINE | SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT EXCEEDS GWQS (mg/L), NOT AFFECTING SURFACE WATER | |
| GUIDE RAIL | SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DOES NOT EXCEED GWQS (mg/L) | |
| RAILROAD | SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DETECTION LIMIT EXCEEDS GWQS (mg/L) | |
| PERMETER OF WET AREA | | |
| STREAMS | | |
| CULVERT | | |
| TRAIL/DIRT ROAD | | |
| ELECTRIC SUBSTATION | | |
| DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 10) | | |
| STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 11) | | |

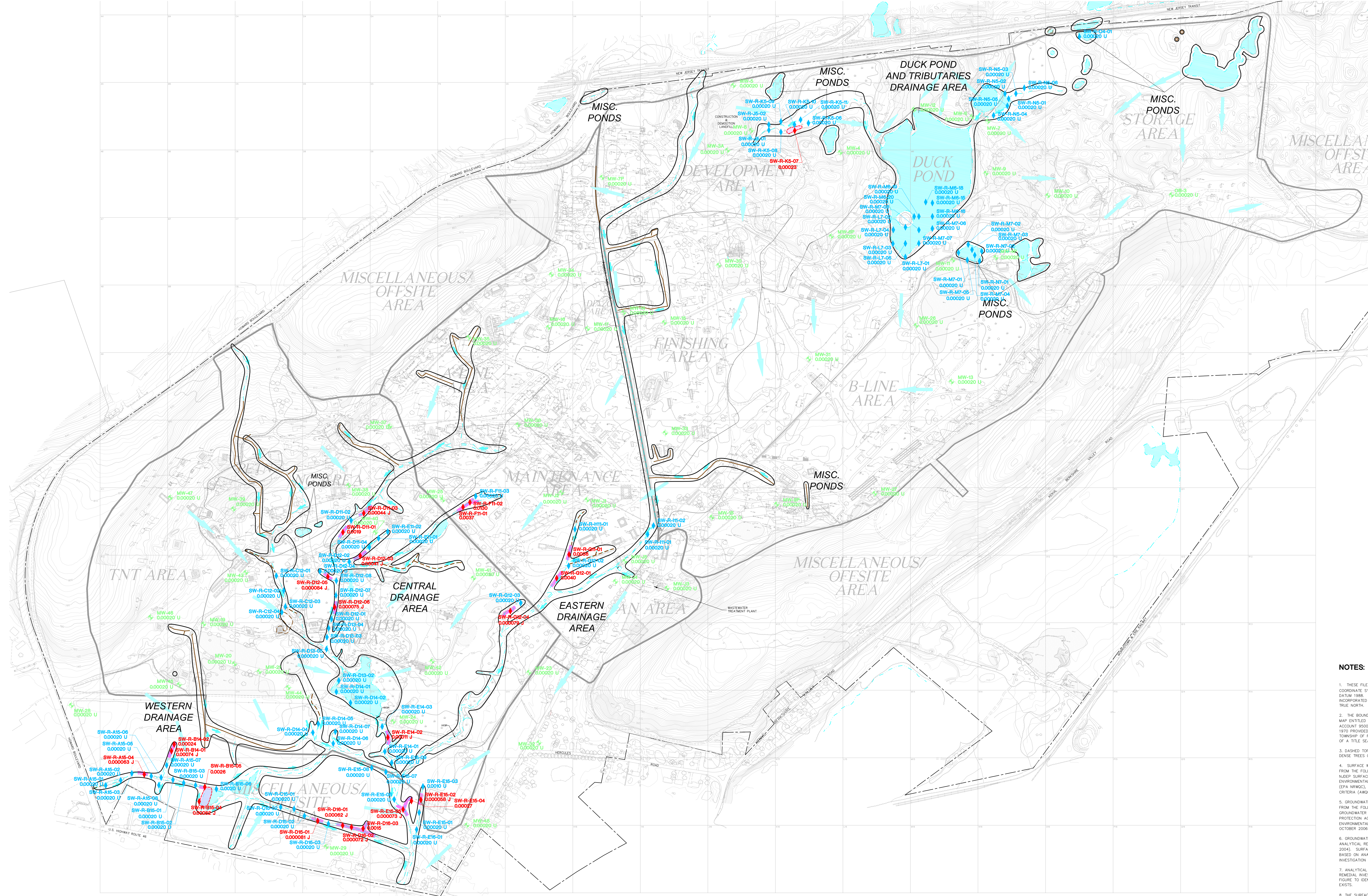
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HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER - TOTAL LEAD
AREAL EXTENT MAP



FIGURE E-9

REV	DATE	BY	DESCRIPTION

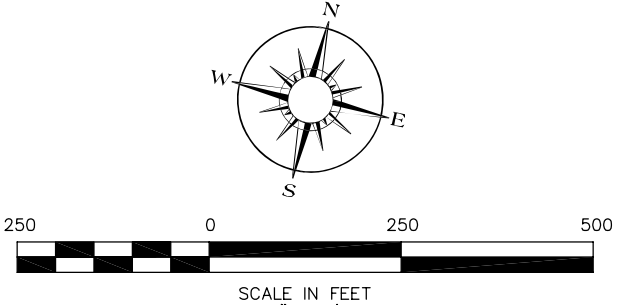


NOTES:

1. THESE FILES ARE IN THE NORTH AMERICAN DATUM 1983 NEW JERSEY STATE PLANE COORDINATE SYSTEM. THE TOPOGRAPHIC FILE REFERENCES THE NORTH AMERICAN VERTICAL DATUM 1988. THE FACILITY GRID SYSTEM WAS HISTORICALLY DEVELOPED BY HERCULES INCORPORATED TO AID SITE MANAGEMENT, AND THE GRID LINES ARE NOT ORIENTED TO TRUE NORTH.
2. THE BOUNDARY LINE AS DELINEATED IS APPROXIMATE AND HAS BEEN DIGITIZED FROM A MAP ENTITLED 'HERCULES INCORPORATED, KENVIL PLANT PROPERTY MAP, PLANT 080, ACCOUNT #500, CLASSIFICATION 2104A, FILE CODE SWE REVISION 1' REVISED TO JUNE 11, 1970 PROVIDED BY REPRESENTATIVES OF HERCULES, INC. AND THE TAX MAP OF THE TOWNSHIP OF ROXBURY AND 1021 FROM AN ACTUAL FIELD SURVEY OR WITH THE BENEFIT OF A TITLE SEARCH.
3. DASHED TOPOGRAPHIC CONTOURS INDICATE AREAS WHERE THE GROUND IS OCCUPIED BY DENSE TREES OR SHADOWS. THESE AREAS MAY NOT CONFORM TO ACCURACY STANDARDS.
4. SURFACE WATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE SURFACE WATER QUALITY STANDARDS (SWQS): THE NJDEP SURFACE WATER QUALITY STANDARDS (NJDEP SWQS), OCTOBER 2006; ENVIRONMENTAL PROTECTION AGENCY NATIONAL RECOMMENDED WATER QUALITY CRITERIA (EPA NRCWC), 2006; ENVIRONMENTAL PROTECTION AGENCY AMBIENT WATER QUALITY CRITERIA (EPA AWC), 1995.
5. GROUNDWATER ANALYTICAL SAMPLE RESULTS WERE COMPARED TO CRITERIA DERIVED FROM THE FOLLOWING APPLICABLE GROUNDWATER QUALITY STANDARDS (GWQS): THE NJDEP GROUNDWATER QUALITY STANDARDS (NJDEP GWQS), JUNE 2005; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), APRIL 2006; ENVIRONMENTAL PROTECTION AGENCY REGION II RISK-BASED CRITERIA (EPA REGION II RBC), OCTOBER 2006.
6. GROUNDWATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE GROUNDWATER SITE INVESTIGATION REPORT (MWH, 2004). SURFACE WATER REMEDIAL INVESTIGATION SAMPLE LOCATIONS WERE SELECTED BASED ON ANALYTICAL RESULTS PRESENTED IN THE SURFACE WATER/SEDIMENT SITE INVESTIGATION (SW/SO-9) REPORT (MWH, 2004).
7. ANALYTICAL SAMPLES PRESENTED ON THIS FIGURE WERE COLLECTED DURING THE REMEDIAL INVESTIGATION. GROUNDWATER ANALYTICAL RESULTS ARE INCLUDED ON THIS FIGURE TO IDENTIFY WHERE A RELATIONSHIP BETWEEN SURFACE WATER AND GROUNDWATER EXISTS.
8. THE SURFACE WATER QUALITY STANDARD (SWQS) FOR TOTAL MERCURY IS 0.00005 mg/L [NJDEP SWQS, 2006].
9. THE GROUNDWATER QUALITY STANDARD (GWQS) FOR TOTAL MERCURY IS 0.002 mg/L [NJDEP GWQS, 2005].
10. SOLID BROWN LINES REPRESENT DRY STREAM SEGMENTS OR FORMER DITCHES THAT NO LONGER CONVEY WATER SINCE MANUFACTURING OPERATIONS HAVE CEASED. THESE AREAS ARE NO LONGER CONSIDERED SURFACE WATER OR SEDIMENT BODIES AND ARE CONSIDERED SOL IN THE REMEDIAL INVESTIGATION REPORT.
11. DASHED BROWN LINES REPRESENT STREAM SEGMENTS OR AREAS WITHOUT SUFFICIENT WATER PRESENT FOR SURFACE WATER SAMPLE COLLECTION, HOWEVER SATURATED SEDIMENTS ARE PRESENT.
12. AREAS OF EXCEEDANCE ARE DEFINED BASED ON DETECTED CONSTITUENT CONCENTRATIONS EXCEEDING THE NJDEP SWQS DELINEATED TO LOCATIONS WHERE LABORATORY ANALYSIS EITHER DID NOT DETECT THE CONSTITUENT OR WHERE CONCENTRATIONS WERE BELOW THE NJDEP SWQS. HOWEVER, THE LABORATORY METHOD DETECTION LIMIT (MDL) AND PRACTICAL QUANTIFICATION LIMIT (PQL) FOR METHOD SW-846 BODIB WERE GREATER THAN THE ESTABLISHED NJDEP SWQS. THEREFORE, THERE IS A DEGREE OF UNCERTAINTY CONCERNING THE EXACT POINT OF COMPLIANCE FOR TOTAL MERCURY PRESENTED ON THIS FIGURE.

LEGEND:

- | | | | | | |
|--|--|--|--|--|---|
| | WEIR | | BERM/BARRICADE/BUNKER | | INFERRED AREAL EXTENT EXCEEDING SWQS |
| | WATER FEATURE | | CONTAMINANT BASIN | | INDICATES THAT THE COMPOUND WAS ANALYZED FOR AND WAS DETECTED BELOW THE REPORTING LIMIT, AND/OR NUMBER INDICATES AN ESTIMATED VALUE |
| | REMEDIAL AREA | | MISCELLANEOUS REMNANT ACTIVITY AREA | | INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED, NUMBER INDICATES THE DETECTION LIMIT |
| | FORMER OPERATIONAL AREA | | TOPOGRAPHIC CONTOUR (5 FOOT INTERVAL) | | FLOW DIRECTION OF SURFACE WATER |
| | UTILITY POLE | | R SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT EXCEEDS SWQS (mg/L) | | FLOW DIRECTION OF GROUNDWATER |
| | LIGHT POLE | | R SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DOES NOT EXCEED SWQS (mg/L) | | |
| | WET AREA | | R SURFACE WATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DETECTION LIMIT EXCEEDS SWQS (mg/L) | | |
| | FENCE | | S SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT EXCEEDS GWQS (mg/L), AFFECTING SURFACE WATER | | |
| | PROPERTY LINE | | S SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DOES NOT EXCEED GWQS (mg/L) | | |
| | GUIDE RAIL | | S SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DETECTION LIMIT EXCEEDS GWQS (mg/L) | | |
| | RAILROAD | | S SHALLOW MONITORING WELL GROUNDWATER SAMPLE LOCATION WHERE ANALYTICAL RESULT DOES NOT EXCEED GWQS (mg/L) | | |
| | SMALL GAUGE RAIL | | | | |
| | PERIMETER OF WET AREA | | | | |
| | STREAMS | | | | |
| | CULVERT | | | | |
| | TRAIL/DIRT ROAD | | | | |
| | ELECTRIC SUBSTATION | | | | |
| | DRY STREAM SEGMENT, AREA, OR FORMER DITCH (REFER TO NOTE 10) | | | | |
| | STREAM SEGMENT OR AREA WITHOUT SUFFICIENT WATER PRESENT (REFER TO NOTE 11) | | | | |



REMEDIAL INVESTIGATION REPORT
HERCULES INCORPORATED
KENVIL WORKS FACILITY

SURFACE WATER - TOTAL MERCURY
AREAL EXTENT MAP



FIGURE E-10

TABLES

Table E-1

Surface Water - RI Analytical Methods and Criteria Summary
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Analytical Group	Constituent	Units	Analytical Method	Human Health	Aquatic Life	Aquatic Life	Source
				SWQS	Chronic SWQS	Acute SWQS	
VOCS	BROMODICHLOROMETHANE	UG/L	SW8260B	0.55	NS	NS	NJDEP SWQS 2006
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	SW8260B	0.34	NS	NS	NJDEP SWQS 2006
SVOCS	2,4-DINITROTOLUENE	UG/L	SW8270C	0.11	NS	NS	NJDEP SWQS 2006
SVOCS	2,6-DINITROTOLUENE	UG/L	SW8270C	NS	NS	NS	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	SW8270C	0.038	NS	NS	NJDEP SWQS 2006
SVOCS	BENZO(a)PYRENE	UG/L	SW8270C	0.0038	NS	NS	NJDEP SWQS 2006
SVOCS	BENZO(b)FLUORANTHENE	UG/L	SW8270C	0.038	NS	NS	NJDEP SWQS 2006
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	SW8270C	195*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998
SVOCS	BENZO(k)FLUORANTHENE	UG/L	SW8270C	0.38	NS	NS	NJDEP SWQS 2006
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	SW8270C	1.2	NS	NS	NJDEP SWQS 2006
SVOCS	CHRYSENE	UG/L	SW8270C	3.8	NS	NS	NJDEP SWQS 2006
TOTAL METALS	ARSENIC	MG/L	SW6010B	0.000017	NA	NA	NJDEP SWQS 2006
TOTAL METALS	COPPER	MG/L	SW6010B	1.3	NA	NA	NJDEP SWQS 2006
TOTAL METALS	LEAD	MG/L	SW6010B	0.005	NA	NA	NJDEP SWQS 2006
TOTAL METALS	MERCURY	MG/L	SW7470A	0.00005	NA	NA	NJDEP SWQS 2006
TOTAL METALS	SELENIUM	MG/L	SW6010B	0.17	NA	NA	NJDEP SWQS 2006
TOTAL METALS	SILVER	MG/L	SW6010B	0.17	NA	NA	NJDEP SWQS 2006
TOTAL METALS	THALLIUM	MG/L	SW6010B	0.00024	NA	NA	NJDEP SWQS 2006
TOTAL METALS	ZINC	MG/L	SW6010B	7.4	NA	NA	NJDEP SWQS 2006
DISSOLVED METALS	ARSENIC	MG/L	SW6010B	NA	0.15	0.34	NJDEP SWQS 2006
DISSOLVED METALS	COPPER - WESTERN DRAINAGE AREA	MG/L	SW6010B	NA	0.0069*	0.0101*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	COPPER - CENTRAL DRAINAGE AREA	MG/L	SW6010B	NA	0.0074*	0.011*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	COPPER - EASTERN DRAINAGE AREA	MG/L	SW6010B	NA	0.0148*	0.0236*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	COPPER - DUCK POND AND TRIBUTARIES DRAINAGE AREA	MG/L	SW6010B	NA	0.0046*	0.0065*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	COPPER - MISCELLANEOUS PONDS DRAINAGE AREA	MG/L	SW6010B	NA	0.0058*	0.0084*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006

Table E-1

Surface Water - RI Analytical Methods and Criteria Summary
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Analytical Group		Constituent	Units	Analytical Method	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Source
DISSOLVED METALS	LEAD		MG/L	SW6010B	NA	0.0054	0.038	NJDEP SWQS 2006
DISSOLVED METALS	MERCURY		MG/L	SW7470A	NA	0.00077	0.0014	NJDEP SWQS 2006
DISSOLVED METALS	SELENIUM		MG/L	SW6010B	NA	0.005	0.02	NJDEP SWQS 2006
DISSOLVED METALS	SILVER - WESTERN DRAINAGE AREA		MG/L	SW6010B	NA	NS	0.0021*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	SILVER - CENTRAL DRAINAGE AREA		MG/L	SW6010B	NA	NS	0.0025*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	SILVER - EASTERN DRAINAGE AREA		MG/L	SW6010B	NA	NS	0.0099*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	SILVER - DUCK POND AND TRIBUTARIES DRAINAGE AREA		MG/L	SW6010B	NA	NS	0.0009*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	SILVER - MISCELLANEOUS PONDS DRAINAGE AREA		MG/L	SW6010B	NA	NS	0.0015*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	THALLIUM		MG/L	SW6010B	NA	NS	NS	NA
DISSOLVED METALS	ZINC - WESTERN DRAINAGE AREA		MG/L	SW6010B	NA	0.0925*	0.0925*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	ZINC - CENTRAL DRAINAGE AREA		MG/L	SW6010B	NA	0.0998*	0.0998*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	ZINC - EASTERN DRAINAGE AREA		MG/L	SW6010B	NA	0.1982*	0.1982*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	ZINC - DUCK POND AND TRIBUTARIES DRAINAGE AREA		MG/L	SW6010B	NA	0.0621*	0.0621*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
DISSOLVED METALS	ZINC - MISCELLANEOUS PONDS DRAINAGE AREA		MG/L	SW6010B	NA	0.0781*	0.0781*	Site Specific Screening Level, Calculated using NJDEP SWQS 2006
E&E	2,4,6-TRINITROTOLUENE		UG/L	SW8330	1.1*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	SW8330	6*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	SW8330	6*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	SW8330	0.31*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	SW8330	1735*	NS	NS	Site Specific Screening Level, Calculated using EPA AWQC 1998

Notes:

VOCS = Volatile organic constituents

E&E = Explosive and energetic constituents

SVOCS = Semi-volatile organic constituents

SWQS = Surface water quality standard

NA = Not applicable

NS = No standard

* = Site specific screening level, derived from source indicated on table

Sources:

NJDEP SWQS = NJDEP Surface Water Quality Standard as specified in N.J.A.C. 7:9B October 2006

AWQC 1998 = Criteria were developed according to 1998 EPA Ambient Water Quality Criteria Derivation Methodology applicable to NJ surface water FW2-NT

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN AREA II DYNAMITE SW-R-D14-04 SW-R-D14-04(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-05 SW-R-D14-05(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-06 SW-R-D14-06(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-07 SW-R-D14-07(0.0-0.5) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.100 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-01 SW-R-A15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-02 SW-R-A15-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-03 SW-R-A15-03(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0150 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-04 SW-R-A15-04(0.25-0.75) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-05 SW-R-A15-05(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-06 SW-R-A15-06(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0150 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-07 SW-R-A15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-08 SW-R-A15-08(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-01 SW-R-B14-01(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0400 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0150 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0400 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-02 SW-R-B14-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-01 SW-R-B15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-02 SW-R-B15-02(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	5 U	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0400 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0400 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-03 SW-R-B15-03(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-04 SW-R-B15-04(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-05 SW-R-B15-05(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	-	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0400 U	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0400 U	0.0400 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
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SWQS = Surface water quality standard
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 8/16/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-07 SW-R-B15-07(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	NA	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	NA	-
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	-	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.0020 U	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	NA	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-08 SW-R-B15-08(0.25-0.75) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-01 SW-R-C15-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-02 SW-R-C15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	0.0200 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
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E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-03 SW-R-C15-03(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-04 SW-R-C15-04(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-01 SW-R-D15-01(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	-	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-02 SW-R-D15-02(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-03 SW-R-D15-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-01 SW-R-D16-01(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	-
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	-
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	-	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-02 SW-R-D16-02(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-03 SW-R-D16-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-01 SW-R-E15-01(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
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U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-02 SW-R-E15-02(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-03 SW-R-E15-03(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-04 SW-R-E15-04(0.0-0.5) 7/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.0010 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-05 SW-R-E15-05(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-06 SW-R-E15-06(0.75-1.25) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-07 SW-R-E15-07(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	-	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-08 SW-R-E15-08(1.25-1.75) 7/13/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E16-01 SW-R-E16-01(0.25-0.75) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-C12-01 SW-R-C12-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-02 SW-R-C12-02(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-03 SW-R-C12-03(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-04 SW-R-C12-04(0.0-0.5) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	-	0.0200 U	-
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D11-01 SW-R-D11-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-02 SW-R-D11-02(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-03 SW-R-D11-03(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-04 SW-R-D11-04(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0200 U	-	-
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00020 U	-	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.100 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-01 SW-R-D12-01(0.5-1.0) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D12-02 SW-R-D12-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-03 SW-R-D12-03(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-04 SW-R-D12-04(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	-	-	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	-	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-05 SW-R-D12-05(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-06 SW-R-D12-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-07 SW-R-D12-07(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-08 SW-R-D12-08(0.25-0.75) 6/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	-	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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SWQS = Surface water quality standard
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Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-01 SW-R-D13-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-02 SW-R-D13-02(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-03 SW-R-D13-03(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-04 SW-R-D13-04(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	-	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	5 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	5 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	5 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	5 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	5 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	5 U	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	-	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	-	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	-	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	0.0100 U	NA	0.0100 U	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	NA	0.0200 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	0.0200 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	0.0050 U	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-05 SW-R-D13-05(0.5-1.0) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D13-06 SW-R-D13-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-07 SW-R-D13-07(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-08 SW-R-D13-08(0.25-0.75) 6/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	50 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	50 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	50 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	50 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	50 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	50 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	50 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	0.0100 U	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	0.0050 U	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D14-01 SW-R-D14-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D14-02 SW-R-D14-02(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D14-03 SW-R-D14-03(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-E11-01 SW-R-E11-01(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	NA	-
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	NA	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0200 U	NA	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	NA	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	NA	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	0.0200 U	NA	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	-	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	0.0100 U	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	0.0200 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	0.0200 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	0.60 UJ	-	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E11-02 SW-R-E11-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E14-01 SW-R-E14-01(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E14-02 SW-R-E14-02(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E14-03 SW-R-E14-03(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0200 U	-	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0150 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	-	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 UJ	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E15-09 SW-R-E15-09(1.25-1.75) 7/13/2006	CENTRAL AREA III A-LINE SW-R-E10-01 SW-R-E10-01(0.25-0.75) 5/24/2006	CENTRAL AREA III A-LINE SW-R-F10-01 SW-R-F10-01(0.0-0.5) 5/24/2006	CENTRAL AREA III A-LINE SW-R-F10-02 SW-R-F10-02(0.0-0.5) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	-	-	-
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	0.0100 U	0.0100 U	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	-	-	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	0.0050 U	0.0050 U	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA III MAINTENANCE SW-R-F11-01 SW-R-F11-01(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-02 SW-R-F11-02(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-03 SW-R-F11-03(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 UJ	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 UJ	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 UJ	-	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	-	-	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 UJ	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 UJ	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 UJ	-	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	0.400 U	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.400 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-01 SW-R-F14-01(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-02 SW-R-F14-02(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-03 SW-R-F14-03(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-04 SW-R-F14-04(0.25-0.75) 5/19/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	-	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	-	-	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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SWQS = Surface water quality standard
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Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-05 SW-R-F14-05(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-06 SW-R-F14-06(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-07 SW-R-F14-07(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-G12-03 SW-R-G12-03(0.0-0.5) 6/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	-	-	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U	0.0200 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	-	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	0.0200 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	-	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-G12-04 SW-R-G12-04(0.0-0.5) 6/12/2006	EASTERN AREA III MAINTENANCE SW-R-G11-01 SW-R-G11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-01 SW-R-G12-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-02 SW-R-G12-02(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	50 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	50 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	50 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	50 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	50 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	50 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	50 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA III MAINTENANCE SW-R-H11-01 SW-R-H11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-I11-01 SW-R-I11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-I11-02 SW-R-I11-02(0.25-0.75) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-J5-01 SW-R-J5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-J5-02 SW-R-J5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-06 SW-R-K5-06(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-07 SW-R-K5-07(0.0-0.5) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.100 U	-	0.0200 U	0.100 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	0.0200 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	-
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	0.100 U	0.0200 U	0.100 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 UJ	0.60 UJ

Notes:
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PQL = Practical quantitation limits
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-K5-08 SW-R-K5-08(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-09 SW-R-K5-09(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-10 SW-R-K5-10(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-11 SW-R-K5-11(0.0-0.5) 4/5/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	-	0.100 U	-
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	-	0.100 U	0.100 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-01 SW-R-L7-01(1.25-1.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-L7-02 SW-R-L7-02(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-03 SW-R-L7-03(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-04 SW-R-L7-04(0.0-0.75) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	-	0.0150 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-05 SW-R-L7-05(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-01 SW-R-M6-01(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-02 SW-R-M6-02(0.5-1.0) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-03 SW-R-M6-03(0.75-1.25) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
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Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-04 SW-R-M6-04(0.75-1.25) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-05 SW-R-M6-05(1.0-1.5) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-06 SW-R-M6-06(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-07 SW-R-M6-07(0.0-3.0) 6/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-08 SW-R-M6-08(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-09 SW-R-M6-09(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-10 SW-R-M6-10(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-11 SW-R-M6-11(0.0-3.0) 6/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
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Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
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Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-12 SW-R-M6-12(0.0-4.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-13 SW-R-M6-13(0.0-3.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-14 SW-R-M6-14(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-15 SW-R-M6-15(0.0-4.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	0.0150 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-16 SW-R-M6-16(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-17 SW-R-M6-17(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-18 SW-R-M6-18(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-19 SW-R-M6-19(0.0-3.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	5 U	5 U	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	5 U	5 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	5 U	5 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	5 U	5 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	5 U	5 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	5 U	5 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	5 U	5 U	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	NA	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	NA	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	NA	0.0150 U	0.0150 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	NA	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	NA	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-20 SW-R-M6-20(0.0-1.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M7-06 SW-R-M7-06(0.5-1.0) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-07 SW-R-M7-07(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-08 SW-R-M7-08(0.0-2.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0200 U	0.0200 U	0.0150 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-01 SW-R-N5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-02 SW-R-N5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-03 SW-R-N5-03(0.0-0.5) 4/7/2006	DUCK POND AREA I STORAGE SW-R-N5-04 SW-R-N5-04(0.0-0.5) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	-
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	-
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	12 U	12 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
SVOCS = Semi-volatile organic constituents
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-05 SW-R-N5-05(0.25-0.75) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-06 SW-R-N5-06(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	0.0100 U	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-01 SW-R-K5-01(0.0-0.5) 3/30/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-01 SW-R-K5-01(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	-	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	-	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	-	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	-	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	-	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	NA	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	NA	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	NA	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	NA	12 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 4/12/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-03 SW-R-K5-03(0.0-0.5) 3/30/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-03 SW-R-K5-03(0.0-0.5) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	-
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	-	NA	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA	-
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	NA	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	-	NA
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	0.60 UJ	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
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Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 3/30/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-05 SW-R-K5-05(0.0-0.5) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	-	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	-	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0200 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0200 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	-	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	NA	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	NA	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	NA	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	12 UJ	NA	0.60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-05 SW-R-K5-05(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-01 SW-R-M7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-02 SW-R-M7-02(0.25-0.75) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	-	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-M7-03 SW-R-M7-03(0.5-1.0) 4/6/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-04 SW-R-M7-04(0.5-1.0) 4/6/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-05 SW-R-M7-05(0.25-0.75) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-N7-01 SW-R-N7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-N7-02 SW-R-N7-02(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-O4-01 SW-R-O4-01(0.5-1.0) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-2

Surface Water - Analytical Samples with PQL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-O5-01 SW-R-O5-01(0.0-0.5) 5/18/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-O5-02 SW-R-O5-02(1.0-1.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	-
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	0.0100 U	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	60 UJ	60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	60 UJ	60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	60 UJ	60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	60 UJ	60 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
PQL = Practical quantitation limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the practical quantitation limit provided by laboratory analysis exceeded the Aquatic Life Acute SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN AREA II DYNAMITE SW-R-D14-04 SW-R-D14-04(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-05 SW-R-D14-05(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-06 SW-R-D14-06(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-07 SW-R-D14-07(0.0-0.5) 7/13/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-01 SW-R-A15-01(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.01 U	0.01 U	0.05 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	0.000056 U	0.000056 U	0.000056 U	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0675 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-02 SW-R-A15-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-03 SW-R-A15-03(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-04 SW-R-A15-04(0.25-0.75) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-05 SW-R-A15-05(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	1 U	1 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	0.8 U	0.8 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.01 U	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U	-	0.0069 U	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	0.000056 U	-	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-06 SW-R-A15-06(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-07 SW-R-A15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-08 SW-R-A15-08(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-01 SW-R-B14-01(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	1 U	1 U	1 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	0.8 U	0.8 U	0.8 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.01 U	0.01 U	0.02 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	0.0069 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	0.000056 U	0.000056 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.027 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-02 SW-R-B14-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-01 SW-R-B15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-02 SW-R-B15-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-03 SW-R-B15-03(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	1 U	1 U	1 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	0.8 U	0.8 U	0.8 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.02 U	0.01 U	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000056 U	0.000056 U	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.027 U	0.0135 U	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-04 SW-R-B15-04(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-05 SW-R-B15-05(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 8/16/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	1 U	1 U	1 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	0.8 U	-	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.02 U	-	NA	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	NA	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	NA	0.00056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.027 U	0.027 U	NA	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-07 SW-R-B15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-08 SW-R-B15-08(0.25-0.75) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-01 SW-R-C15-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-02 SW-R-C15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	1 U	1 U	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	-	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0069 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	0.000056 U	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-03 SW-R-C15-03(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-04 SW-R-C15-04(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-01 SW-R-D15-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-02 SW-R-D15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	1 U	1 U	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	0.8 U	-	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0069 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	-	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-03 SW-R-D15-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-01 SW-R-D16-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-02 SW-R-D16-02(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-03 SW-R-D16-03(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	0.9 U	1 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	0.9 U	1 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	0.9 U	1 U	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	-	1 U	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	0.9 U	1 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	2 U	2 U	2 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.01 U	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-01 SW-R-E15-01(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-02 SW-R-E15-02(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-03 SW-R-E15-03(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-04 SW-R-E15-04(0.0-0.5) 7/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	1 U	1 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	0.8 U	0.8 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.01 U	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	-	0.00028 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-05 SW-R-E15-05(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-06 SW-R-E15-06(0.75-1.25) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-07 SW-R-E15-07(1.25-1.75) 7/13/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-08 SW-R-E15-08(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.01 U	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000056 U	0.000056 U	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E16-01 SW-R-E16-01(0.25-0.75) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-C12-01 SW-R-C12-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-02 SW-R-C12-02(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-03 SW-R-C12-03(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-04 SW-R-C12-04(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-01 SW-R-D11-01(0.25-0.75) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	-	0.01 U	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	0.000056 U	0.000056 U	0.000056 U	-
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D11-02 SW-R-D11-02(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-03 SW-R-D11-03(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-04 SW-R-D11-04(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-01 SW-R-D12-01(0.5-1.0) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D12-02 SW-R-D12-02(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	-	-	0.0093 U	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0084 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	-	0.000056 U	0.000062 U	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0675 U	0.0135 U	0.01 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-03 SW-R-D12-03(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-04 SW-R-D12-04(0.0-0.5) 6/8/2006	CENTRAL AREA II DYNAMITE SW-R-D12-05 SW-R-D12-05(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-06 SW-R-D12-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-07 SW-R-D12-07(0.0-0.5) 6/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.01 U	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000056 U	-	-	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	0.0135 U	-
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-08 SW-R-D12-08(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-01 SW-R-D13-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-02 SW-R-D13-02(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-03 SW-R-D13-03(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-04 SW-R-D13-04(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	-	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	1 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	1 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	1 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	1 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	2 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	-	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	NA	-	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	NA	-	0.0084 U	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	NA	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	NA	0.01 U	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	-	NA	-	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0084 U	NA	0.0084 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	-	NA	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0094 U	NA	0.0094 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	-	NA	-	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-05 SW-R-D13-05(0.5-1.0) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D13-06 SW-R-D13-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-07 SW-R-D13-07(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-08 SW-R-D13-08(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D14-01 SW-R-D14-01(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 U	10 U	1 U	1 U	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	1 U	10 U	1 U	1 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	1 U	10 U	1 U	1 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	1 U	10 U	1 U	1 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	1 U	10 U	1 U	1 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	2 U	20 U	2 U	2 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	-	10 U	-	-	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	NA	NA	NA	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	NA	NA	NA	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	NA	NA	NA	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	NA	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	NA	NA	NA	-
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0084 U	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D14-02 SW-R-D14-02(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D14-03 SW-R-D14-03(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-E11-01 SW-R-E11-01(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E11-02 SW-R-E11-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E14-01 SW-R-E14-01(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	NA	-	-	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0084 U	NA	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	NA	0.000056 U	0.000056 U	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	NA	0.0135 U	0.0135 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	-	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0084 U	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	-	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0094 U	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	-	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E14-02 SW-R-E14-02(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E14-03 SW-R-E14-03(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E15-09 SW-R-E15-09(1.25-1.75) 7/13/2006	CENTRAL AREA III A-LINE SW-R-E10-01 SW-R-E10-01(0.25-0.75) 5/24/2006	CENTRAL AREA III A-LINE SW-R-F10-01 SW-R-F10-01(0.0-0.5) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.01 U	0.01 U	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0069 U	0.0069 U	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000056 U	0.000056 U	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.0135 U	0.0135 U	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	0.0084 U	0.0084 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	-	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	0.0094 U	0.0094 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA III A-LINE SW-R-F10-02 SW-R-F10-02(0.0-0.5) 5/24/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-01 SW-R-F11-01(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-02 SW-R-F11-02(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-03 SW-R-F11-03(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	1 UJ	1 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	1 UJ	1 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	1 UJ	-	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	-	-	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	1 UJ	1 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	2 UJ	2 U	2 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	-	-	-
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	-	-	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	-	-	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	-	-	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	-	0.188 U	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.01 U	0.2 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0084 U	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-01 SW-R-F14-01(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-02 SW-R-F14-02(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-03 SW-R-F14-03(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-04 SW-R-F14-04(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-05 SW-R-F14-05(0.25-0.75) 5/19/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	-	-	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0084 U	0.0084 U	0.0084 U	0.0084 U	0.0084 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	-	-	-	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-06 SW-R-F14-06(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-07 SW-R-F14-07(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-G12-03 SW-R-G12-03(0.0-0.5) 6/12/2006	EASTERN AREA II DYNAMITE SW-R-G12-04 SW-R-G12-04(0.0-0.5) 6/12/2006	EASTERN AREA III MAINTENANCE SW-R-G11-01 SW-R-G11-01(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA	10 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	10 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA	10 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA	10 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA	10 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA	20 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA	10 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	0.01 U	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0069 U	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	0.000056 U	-	-
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	0.0135 U	0.0135 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	-	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0084 U	0.0084 U	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	-	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	0.0094 U	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	-	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date	EASTERN AREA III MAINTENANCE SW-R-G12-01 SW-R-G12-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-02 SW-R-G12-02(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-H11-01 SW-R-H11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-I11-01 SW-R-I11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-I11-02 SW-R-I11-02(0.25-0.75) 5/9/2006		
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 U	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	1 U	1 U	1 U	1 U	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	1 U	1 U	1 U	1 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	2 U	2 U	2 U	2 U	2 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	-	-	-	-	-
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	0.0093 U	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0084 U	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000062 U	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-J5-01 SW-R-J5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-J5-02 SW-R-J5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-06 SW-R-K5-06(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-07 SW-R-K5-07(0.0-0.5) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0465 U	-	0.0093 U	0.0465 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	0.0084 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U	0.000062 U	-
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	0.05 U	0.01 U	0.05 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-K5-08 SW-R-K5-08(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-09 SW-R-K5-09(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-10 SW-R-K5-10(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-11 SW-R-K5-11(0.0-0.5) 4/5/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	-	0.0465 U	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0084 U	-	-	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	-	0.05 U	0.05 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-01 SW-R-L7-01(1.25-1.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-L7-02 SW-R-L7-02(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-03 SW-R-L7-03(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-04 SW-R-L7-04(0.0-0.75) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	0.01 U	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0084 U	-	0.0069 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000056 U	0.000056 U	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.0135 U	0.0135 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-05 SW-R-L7-05(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-01 SW-R-M6-01(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-02 SW-R-M6-02(0.5-1.0) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-03 SW-R-M6-03(0.75-1.25) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	1 U	0.9 U	0.9 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	1 U	0.9 U	0.9 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	1 U	0.9 U	0.9 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	1 U	0.9 U	0.9 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	1 U	0.9 U	0.9 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	2 U	2 U	2 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-04 SW-R-M6-04(0.75-1.25) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-05 SW-R-M6-05(1.0-1.5) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-06 SW-R-M6-06(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-07 SW-R-M6-07(0.0-3.0) 6/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	0.9 U	1 U	0.9 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	0.9 U	1 U	0.9 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	0.9 U	1 U	0.9 U	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	0.9 U	1 U	0.9 U	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	0.9 U	1 U	0.9 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	2 U	2 U	2 U	2 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-08 SW-R-M6-08(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-09 SW-R-M6-09(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-10 SW-R-M6-10(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-11 SW-R-M6-11(0.0-3.0) 6/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	1 U	1 U	1 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	2 U	2 U	2 U	2 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-12 SW-R-M6-12(0.0-4.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-13 SW-R-M6-13(0.0-3.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-14 SW-R-M6-14(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-15 SW-R-M6-15(0.0-4.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	1 U	1 U	1 U	1 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	1 U	1 U	1 U	1 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	2 U	2 U	2 U	2 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-16 SW-R-M6-16(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-17 SW-R-M6-17(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-18 SW-R-M6-18(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-19 SW-R-M6-19(0.0-3.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	1 U	1 U	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	1 U	1 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	1 U	1 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	1 U	1 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	1 U	1 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	2 U	2 U	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	NA	0.01 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U	NA	0.0069 U	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	NA	0.000056 U	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	NA	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	NA	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	NA	0.0135 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-20 SW-R-M6-20(0.0-1.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M7-06 SW-R-M7-06(0.5-1.0) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-07 SW-R-M7-07(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-08 SW-R-M7-08(0.0-2.0) 7/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.01 U	0.0093 U	0.0093 U	0.01 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0069 U	0.0084 U	0.0084 U	0.0069 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000056 U	0.000062 U	0.000062 U	0.000056 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0135 U	0.01 U	0.01 U	0.0135 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-01 SW-R-N5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-02 SW-R-N5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-03 SW-R-N5-03(0.0-0.5) 4/7/2006	DUCK POND AREA I STORAGE SW-R-N5-04 SW-R-N5-04(0.0-0.5) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	0.0093 U	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	-	-	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.01 U	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	-
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	0.0094 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	0.002 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	4 U	4 U	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-05 SW-R-N5-05(0.25-0.75) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-06 SW-R-N5-06(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0084 U	-
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	0.002 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	20 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	20 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	30 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	20 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-01 SW-R-K5-01(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 3/30/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA	-
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	-	NA	0.0094 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.002 U	NA	0.002 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	-	NA
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	4 UJ	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-03 SW-R-K5-03(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 3/30/2006	MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	-	NA	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	-	NA	0.0084 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	-	NA	-
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	NA	0.0094 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.002 U	NA	0.002 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	-	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	-	NA
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	4 UJ	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I DEVELOPMENT SW-R-K5-05 SW-R-K5-05(0.0-0.5) 4/12/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-01 SW-R-M7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-02 SW-R-M7-02(0.25-0.75) 4/6/2006	
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS		ARSENIC	MG/L	0.000017	NS	NS	NA	0.0093 U	0.0093 U
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	NA	0.0084 U	0.0084 U
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	NA	0.000062 U	0.000062 U
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	NA	-	-
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	NA	-	-
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	NA	0.01 U	0.01 U
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	-	NA	NA
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	-	NA	NA
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	-	NA	NA
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	0.0094 U	NA	NA
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0015	0.002 U	NA	NA
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	-	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	NA	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	NA	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	NA	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	NA	0.45 U	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
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NS = No standard
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U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-M7-03 SW-R-M7-03(0.5-1.0) 4/6/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-04 SW-R-M7-04(0.5-1.0) 4/6/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-M7-05 SW-R-M7-05(0.25-0.75) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0093 U	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0084 U	0.0084 U	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-N7-01 SW-R-N7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-N7-02 SW-R-N7-02(0.0-0.5) 4/5/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-O4-01 SW-R-O4-01(0.5-1.0) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0093 U	0.0093 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.0084 U	0.0084 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000062 U	0.000062 U	0.000062 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.01 U	0.01 U	0.01 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.35 U	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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NS = No standard
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Table E-3

Surface Water - Analytical Samples with MDL Exceeding the Surface Water Criteria
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS POND AREA I STORAGE SW-R-O5-01 SW-R-O5-01(0.0-0.5) 5/18/2006	MISCELLANEOUS POND AREA I STORAGE SW-R-O5-02 SW-R-O5-02(1.0-1.5) 5/18/2006	
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	NA	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	NA	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	NA	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	NA	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	-	-
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	0.0084 U	0.0084 U
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	-	-
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	0.0094 U	0.0094 U
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0015	0.002 U	0.002 U
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	-	-
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	20 UJ	20 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	20 UJ	20 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	30 UJ	30 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	20 UJ	20 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
MDL = Method detection limits
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the method detection limit provided by laboratory analysis exceeded the Human Health or Aquatic Life Chronic SWQS

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Western Drainage Area		
Average Hardness Calculation		
Location ID	Field Sample ID	Hardness Result (mg/L)
Copper	SW-R-A15-01(0.-0.5)	0
Silver	SW-R-A15-02(0.-0.5)	0
Zinc	SW-R-A15-03(0.-0.5)	0
SW-R-A15-04	SW-R-A15-04(0.25-0.75)	40
SW-R-A15-05	SW-R-A15-05(0.-0.5)	0
SW-R-A15-06	SW-R-A15-06(0.-0.5)	0
SW-R-A15-07	SW-R-A15-07(0.-0.5)	0
SW-R-A15-08	SW-R-A15-08(0.-0.5)	0
SW-R-B14-01	SW-R-B14-01(0.-0.5)	0
SW-R-B14-02	SW-R-B14-02(0.-0.5)	0
SW-R-B15-01	SW-R-B15-01(0.-0.5)	40
SW-R-B15-02	SW-R-B15-02(0.-0.5)	40
SW-R-B15-03	SW-R-B15-03(0.-0.5)	0
SW-R-B15-04	SW-R-B15-04(0.-0.5)	120
SW-R-B15-05	SW-R-B15-05(0.-0.5)	40
SW-R-B15-06	SW-R-B15-06(0.0-0.5)	180
SW-R-B15-07	SW-R-B15-07(0.-0.5)	120
SW-R-B15-08	SW-R-B15-08(0.25.-0.75)	120
SW-R-C15-01	SW-R-C15-01(0.0-0.5)	80
SW-R-C15-02	SW-R-C15-02(0.0-0.5)	80
SW-R-C15-03	SW-R-C15-03(0.-0.5)	120
SW-R-C15-04	SW-R-C15-04(0.-0.5)	120
SW-R-D14-04	SW-R-D14-04(0-0.5)	0
SW-R-D14-05	SW-R-D14-05(0-0.5)	40
SW-R-D14-06	SW-R-D14-06(0-0.5)	40
SW-R-D14-07	SW-R-D14-07(0-0.5)	180
SW-R-D15-01	SW-R-D15-01(0.0-0.5)	0
SW-R-D15-02	SW-R-D15-02(0.0-0.5)	0
SW-R-D15-03	SW-R-D15-03(0.0-0.5)	0
SW-R-D16-01	SW-R-D16-01(0.0-0.5)	120
SW-R-D16-02	SW-R-D16-02(0.0-0.5)	40
SW-R-D16-03	SW-R-D16-03(0.0-0.5)	0
SW-R-E15-01	SW-R-E15-01(0.0-0.5)	250
SW-R-E15-02	SW-R-E15-02(0.0-0.5)	425
SW-R-E15-03	SW-R-E15-03(0.0-0.5)	250
SW-R-E15-04	SW-R-E15-04(0.-0.5)	80
SW-R-E15-05	SW-R-E15-05(0.-0.5)	180
SW-R-E15-06	SW-R-E15-06(0.75-1.25)	80
SW-R-E15-07	SW-R-E15-07(1.25-1.75)	0
SW-R-E15-08	SW-R-E15-08(1.25-1.75)	0
SW-R-E16-01	SW-R-E16-01(0.25-0.75)	425
Average Hardness =		78

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Western Drainage Area											
Calculated Hardness = 78 mg/l											
Constituent	Acute V	ln Hardness	Acute ln A-V[ln(z)]	Acute CF	Calculated Acute Value (ug/L)	Chronic V	ln Hardness	Chronic ln A-V[ln(z)]	Acute CF	Calculated Chronic Value (ug/L)	Source for Criteria Parameters
Copper	0.9422	4.36	1.7	0.908	10.1	0.8545	4.36	1.702	0.908	6.9	NJDEP SWQS 2006
Silver	1.72	4.36	6.59	0.85	2.1	NS	4.36	NS	NS	NS	NJDEP SWQS 2006
Zinc	0.8473	4.36	0.884	0.95	92.5	0.8473	4.36	0.884	0.95	92.5	NJDEP SWQS 2006

Notes:
For hardness-dependent metals, equation utilized to calculate dissolved metal criteria = WER[e^(V[ln(hardness)]+lnA-V[lnZ])]*CF
Where:
WER = Water effect ratio = 1.0
V= Pooled slope
Z = FAV at given hardness
Z = Selected value of hardness
CF = Conversion factor
NS = No standard
Source:
NJDEP SWQS = NJDEP Surface Water Quality Standard (NJSWQS) as specified in N.J.A.C. 7:9B October 2006

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Central Drainage Area		
Average Hardness Calculation		
Location ID	Field Sample ID	Hardness Result (mg/L)
Copper	SW-R-C12-01(0.25-0.75)	80
Silver	SW-R-C12-02(0.0-0.5)	120
Zinc	SW-R-C12-03(0.0-0.5)	40
SW-R-C12-04	SW-R-C12-04(0.0-0.5)	40
SW-R-D11-01	SW-R-D11-01(0.25-0.75)	80
SW-R-D11-02	SW-R-D11-02(0.25-0.75)	80
SW-R-D11-03	SW-R-D11-03(0.25-0.75)	80
SW-R-D11-04	SW-R-D11-04(0.0-0.5)	40
SW-R-D12-01	SW-R-D12-01(0.5-1.0)	100
SW-R-D12-02	SW-R-D12-02(0.0-0.5)	80
SW-R-D12-03	SW-R-D12-03(0.0-0.5)	40
SW-R-D12-04	SW-R-D12-04(0.0-0.5)	0
SW-R-D12-05	SW-R-D12-05(0.0-0.5)	40
SW-R-D12-06	SW-R-D12-06(0.0-0.5)	80
SW-R-D12-07	SW-R-D12-07(0.0-0.5)	120
SW-R-D12-08	SW-R-D12-08(0.25-0.75)	40
SW-R-D13-01	SW-R-D13-01(0.0-0.5)	160
SW-R-D13-02	SW-R-D13-02(0.0-0.5)	100
SW-R-D13-03	SW-R-D13-03(0.25-0.75)	100
SW-R-D13-04	SW-R-D13-04(0.0-0.5)	100
SW-R-D13-05	SW-R-D13-05(0.5-1.0)	120
SW-R-D13-06	SW-R-D13-06(0.0-0.5)	250
SW-R-D13-07	SW-R-D13-07(0.25-0.75)	0
SW-R-D13-08	SW-R-D13-08(0.25-0.75)	0
SW-R-D14-01	SW-R-D14-01(0.0-0.5)	180
SW-R-D14-02	SW-R-D14-02(0.25-0.75)	160
SW-R-D14-03	SW-R-D14-03(0.0-0.5)	180
SW-R-E10-01	SW-R-E10-01(0.25-0.75)	250
SW-R-E11-01	SW-R-E11-01(0.0-0.5)	40
SW-R-E11-02	SW-R-E11-02(0.0-0.5)	0
SW-R-E14-01	SW-R-E14-01(1.25-1.75)	0
SW-R-E14-02	SW-R-E14-02(1.25-1.75)	120
SW-R-E14-03	SW-R-E14-03(1.25-1.75)	40
SW-R-E15-09	SW-R-E15-09(1.25-1.75)	0
SW-R-F10-01	SW-R-F10-01(0.0-0.5)	120
SW-R-F10-02	SW-R-F10-02(0.0-0.5)	180
SW-R-F11-01	SW-R-F11-01(0.0-0.5)	40
SW-R-F11-02	SW-R-F11-02(0.0-0.5)	40
SW-R-F11-03	SW-R-F11-03(0.0-0.5)	120
Average Hardness =		86

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Central Drainage Area											
Calculated Hardness = 86 mg/l											
Constituent	Acute V	ln Hardness	Acute ln A-V[ln(z)]	Acute CF	Calculated Acute Value (ug/L)	Chronic V	ln Hardness	Chronic ln A-V[ln(z)]	Acute CF	Calculated Chronic Value (ug/L)	Source for Criteria Parameters
Copper	0.9422	4.45	1.7	0.908	11	0.8545	4.45	1.702	0.908	7.4	NJDEP SWQS 2006
Silver	1.72	4.45	6.59	0.85	2.5	NS	4.45	NS	NS	NS	NJDEP SWQS 2006
Zinc	0.8473	4.45	0.884	0.95	99.8	0.8473	4.45	0.884	0.95	99.8	NJDEP SWQS 2006

Notes:
For hardness-dependent metals, equation utilized to calculate dissolved metal criteria = WER[e^(V[ln(hardness)]+lnA-V[lnZ])]*CF
Where:
WER = Water effect ratio = 1.0
V= Pooled slope
Z = FAV at given hardness
Z = Selected value of hardness
CF = Conversion factor
NS = No standard
Source:
NJDEP SWQS = NJDEP Surface Water Quality Standard (NJSWQS) as specified in N.J.A.C. 7:9B October 2006

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Eastern Drainage Area		
Average Hardness Calculation		
Location ID	Field Sample ID	Hardness Result (mg/L)
Copper	SW-R-F14-01(0.0-0.5)	250
Silver	SW-R-F14-02(0.0-0.5)	180
Zinc	SW-R-F14-03(0.0-0.5)	180
SW-R-F14-04	SW-R-F14-04(0.25-0.75)	120
SW-R-F14-05	SW-R-F14-05(0.25-0.75)	180
SW-R-F14-06	SW-R-F14-06(0.25-0.75)	250
SW-R-F14-07	SW-R-F14-07(0.0-0.5)	250
SW-R-G11-01	SW-R-G11-01(0.0-0.5)	120
SW-R-G12-01	SW-R-G12-01(0.0-0.5)	250
SW-R-G12-02	SW-R-G12-02(0.0-0.5)	180
SW-R-G12-03	SW-R-G12-03(0.0-0.5)	250
SW-R-G12-04	SW-R-G12-04(0.0-0.5)	180
SW-R-H11-01	SW-R-H11-01(0.0-0.5)	250
SW-R-I11-01	SW-R-I11-01(0.0-0.5)	120
SW-R-I11-02	SW-R-I11-02(0.25-0.75)	120
Average Hardness =		192

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Eastern Drainage Area											
Calculated Hardness = 192 mg/l											
Constituent	Acute V	ln Hardness	Acute ln A-V[ln(z)]	Acute CF	Calculated Acute Value (ug/L)	Chronic V	ln Hardness	Chronic ln A-V[ln(z)]	Acute CF	Calculated Chronic Value (ug/L)	Source for Criteria Parameters
Copper	0.9422	5.26	1.7	0.908	23.6	0.8545	5.26	1.702	0.908	14.8	NJDEP SWQS 2006
Silver	1.72	5.26	6.59	0.85	9.9	NS	5.26	NS	NS	NS	NJDEP SWQS 2006
Zinc	0.8473	5.26	0.884	0.95	198.2	0.8473	5.26	0.884	0.95	198.2	NJDEP SWQS 2006

Notes:
For hardness-dependent metals, equation utilized to calculate dissolved metal criteria = WER[e^(V[ln(hardness)]+lnA-V[lnZ])]*CF
Where:
WER = Water effect ratio = 1.0
V= Pooled slope
Z = FAV at given hardness
Z = Selected value of hardness
CF = Conversion factor
NS = No standard
Source:
NJDEP SWQS = NJDEP Surface Water Quality Standard (NJSWQS) as specified in N.J.A.C. 7:9B October 2006

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Duck Pond & Tributaries Drainage Area Average Hardness Calculation		
Location ID	Field Sample ID	Hardness Result (mg/L)
Copper	SW-R-J5-01(0.0-0.5)	250
Silver	SW-R-J5-02(0.0-0.5)	80
Zinc	SW-R-K5-06(0.0-0.5)	120
SW-R-K5-07	SW-R-K5-07(0.0-0.5)	40
SW-R-K5-08	SW-R-K5-08(0.0-0.5)	180
SW-R-K5-09	SW-R-K5-09(0.0-0.5)	120
SW-R-K5-10	SW-R-K5-10(0.0-0.5)	120
SW-R-K5-11	SW-R-K5-11(0.0-0.5)	180
SW-R-L7-01	SW-R-L7-01(1.25-1.75)	80
SW-R-L7-02	SW-R-L7-02(0.0-0.5)	0
SW-R-L7-03	SW-R-L7-03(0.0-0.5)	0
SW-R-L7-04	SW-R-L7-04(0.0-0.75)	0
SW-R-L7-05	SW-R-L7-05(0.0-3.0)	0
SW-R-M6-01	SW-R-M6-01(0.25-0.75)	120
SW-R-M6-02	SW-R-M6-02(0.5-1.0)	80
SW-R-M6-03	SW-R-M6-03(0.75-1.25)	80
SW-R-M6-04	SW-R-M6-04(0.75-1.25)	80
SW-R-M6-05	SW-R-M6-05(1.0-1.5)	80
SW-R-M6-06	SW-R-M6-06(0.25-0.75)	80
SW-R-M6-07	SW-R-M6-07(0.0-3.0)	0
SW-R-M6-08	SW-R-M6-08(0.0-3.5)	0
SW-R-M6-09	SW-R-M6-09(0.0-3.5)	0
SW-R-M6-10	SW-R-M6-10(0.0-3.5)	0
SW-R-M6-11	SW-R-M6-11(0.0-3.0)	0
SW-R-M6-12	SW-R-M6-12(0.0-4.0)	0
SW-R-M6-13	SW-R-M6-13(0.0-3.0)	0
SW-R-M6-14	SW-R-M6-14(0.0-4.0)	0
SW-R-M6-15	SW-R-M6-15(0.0-4.0)	0
SW-R-M6-16	SW-R-M6-16(0.0-3.0)	0
SW-R-M6-17	SW-R-M6-17(0.0-3.0)	0
SW-R-M6-18	SW-R-M6-18(0.0-4.0)	0
SW-R-M6-19	SW-R-M6-19(0.0-3.0)	0
SW-R-M6-20	SW-R-M6-20(0.0-1.0)	0
SW-R-M7-06	SW-R-M7-06(0.5-1.0)	80
SW-R-M7-07	SW-R-M7-07(0.25-0.75)	80
SW-R-M7-08	SW-R-M7-08(0.0-2.0)	0
SW-R-N5-01	SW-R-N5-01(0.0-0.5)	40
SW-R-N5-02	SW-R-N5-02(0.0-0.5)	40
SW-R-N5-03	SW-R-N5-03(0.0-0.5)	40
SW-R-N5-04	SW-R-N5-04(0.0-0.5)	40
SW-R-N5-05	SW-R-N5-05(0.25-0.75)	40
SW-R-N5-06	SW-R-N5-06(0.0-0.5)	0
Average Hardness =		49

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Duck Pond and Tributaries Drainage Area											
Calculated Hardness = 49 mg/l											
Constituent	Acute V	ln Hardness	Acute ln A-V[ln(z)]	Acute CF	Calculated Acute Value (ug/L)	Chronic V	ln Hardness	Chronic ln A-V[ln(z)]	Acute CF	Calculated Chronic Value (ug/L)	Source for Criteria Parameters
Copper	0.9422	3.89	1.7	0.908	6.5	0.8545	3.89	1.702	0.908	4.6	NJDEP SWQS 2006
Silver	1.72	3.89	6.59	0.85	0.9	NS	3.89	NS	NS	NS	NJDEP SWQS 2006
Zinc	0.8473	3.89	0.884	0.95	62.1	0.8473	3.89	0.884	0.95	62.1	NJDEP SWQS 2006

Notes:

For hardness-dependent metals, equation utilized to calculate dissolved metal criteria = WER[e^(V[ln(hardness)]+lnA-V[lnZ])]*CF

Where:

WER = Water effect ratio = 1.0

V= Pooled slope

Z = FAV at given hardness

Z = Selected value of hardness

CF = Conversion factor

NS = No standard

Source:

NJDEP SWQS = NJDEP Surface Water Quality Standard (NJSWQS) as specified in N.J.A.C. 7:9B October 2006

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Miscellaneous Ponds Drainage Area		
Average Hardness Calculation		
Location ID	Field Sample ID	Hardness Result (mg/L)
Copper	SW-R-K5-01(0.0-0.5)	40
Silver	SW-R-K5-02(0.25-0.75)	40
Zinc	SW-R-K5-03(0.0-0.5)	40
SW-R-K5-04	SW-R-K5-04(0.0-0.5)	40
SW-R-K5-05	SW-R-K5-05(0.0-0.5)	40
SW-R-M7-01	SW-R-M7-01(0.0-0.5)	80
SW-R-M7-02	SW-R-M7-02(0.25-0.75)	120
SW-R-M7-03	SW-R-M7-03(0.5-1.0)	80
SW-R-M7-04	SW-R-M7-04(0.5-1.0)	120
SW-R-M7-05	SW-R-M7-05(0.25-0.75)	80
SW-R-N7-01	SW-R-N7-01(0.0-0.5)	120
SW-R-N7-02	SW-R-N7-02(0.0-0.5)	80
SW-R-O4-01	SW-R-O4-01(0.5-1.0)	80
SW-R-O5-01	SW-R-O5-01(0.0-0.5)	0
SW-R-O5-02	SW-R-O5-02(1.0-1.5)	0
Average Hardness =		64

Table E-4

Surface Water - Calculation of Aquatic Life Criteria for Dissolved Metals
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

Miscellaneous Pond Drainage Area											
Calculated Hardness = 64 mg/l											
Constituent	Acute V	ln Hardness	Acute ln A-V[ln(z)]	Acute CF	Calculated Acute Value (ug/L)	Chronic V	ln Hardness	Chronic ln A-V[ln(z)]	Acute CF	Calculated Chronic Value (ug/L)	Source for Criteria Parameters
Copper	0.9422	4.16	1.7	0.908	8.4	0.8545	4.16	1.702	0.908	5.8	NJDEP SWQS 2006
Silver	1.72	4.16	6.59	0.85	1.5	NS	4.16	NS	NS	NS	NJDEP SWQS 2006
Zinc	0.8473	4.16	0.884	0.95	78.1	0.8473	4.16	0.884	0.95	78.1	NJDEP SWQS 2006

Notes:
For hardness-dependent metals, equation utilized to calculate dissolved metal criteria = WER[e^(V[ln(hardness)]+lnA-V[lnZ])]*CF
Where:
WER = Water effect ratio = 1.0
V= Pooled slope
Z = FAV at given hardness
Z = Selected value of hardness
CF = Conversion factor
NS = No standard
Source:
NJDEP SWQS = NJDEP Surface Water Quality Standard (NJSWQS) as specified in N.J.A.C. 7:9B October 2006

Table E-5

Surface Water - Calculation of Applicable Criteria
Volume E - Kenvil Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

											Calculated AWQC Carcinogenic Criteria (ug/l)	Calculated AWQC Non- Carcinogenic Criteria (ug/l)	Applied AWQC Criteria (ug/l)*			
Analytical Group	Constituent	BCF (L/kg)	BW (kg)	CF (ug/mg)	FI (kg/d)	DI (L/d)	RSD (mg/kg-d)	CSF ((mg/kg-d)-1)	RSC	RfD (mg/kg-d)				BCF Source	CSF Source	RfD Source
SVOCS	BENZO(G,H,I)PERYLENE	500	70	1000	0.0175	2	0.000001	NA	1	0.03	NA	195	195	EPA, 1999	IRIS (EPA 2006)	IRIS (EPA 2006)
E&E	2,4,6-TRINITROTOLUENE	8.95	70	1000	0.0175	2	0.000001	0.03	1	0.00005	1.1	1.6	1.1	USACOE (1996)	IRIS (EPA 2006)	IRIS (EPA 2006)
E&E	2-AMINO-4,6-DINITROTOLUENE	13	70	1000	0.0175	2	0.000001	NA	1	0.0002	NA	6	6	USACOE (1996)	NCEA as cited in (EPA 2004) for aminodinitritoluene	NCEA as cited in (EPA 2004) for aminodinitritoluene
E&E	4-AMINO-2,6-DINITROTOLUENE	13	70	1000	0.0175	2	0.000001	NA	1	0.0002	NA	6	6	USACOE (1996)	NCEA as cited in (EPA 2004) for aminodinitritoluene	NCEA as cited in (EPA 2004) for aminodinitritoluene
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5- TRIAZINE (RDX)	4	70	1000	0.0175	2	0.000001	0.11	1	0.003	0.31	101	0.31	NLM 2006	IRIS (EPA 2006)	IRIS (EPA 2006)
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO- 1,3,5,7-TETRAZOCINE (HMX)	1	70	1000	0.0175	2	0.000001	NA	1	0.05	NA	1735	1735	NLM 2006	IRIS (EPA 2006)	IRIS (EPA 2006)

Notes:
AWQC (C) = RSD/CSF*BW*CF/((DI+FI*BCF))
AWQC (NC) = RfD*RSC*(BW/(DI+(FI*BCF)))*CF
Where:
AWQC = Ambient water quality criteria (ug/l)
BCF = Bioconcentration factor (L/kg)
BW = Human body weight (70 kg)
CF = Concentration factor (ug/mg)
FI = Fish intake (0.0175 kg/day)
DI = Drinking water intake (2L/day)
RSD = Risk specific dose (mg/kg-day)
RSC = Relative source contribution (percentage of subtraction)
RfD = Reference dose (mg/kg-day)
* = The more conservative calculated value was utilized to ensure protection of human health
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
Calculated for "Water + Organisms," which means criteria are based on protection of human health associated with consumption of organisms taken from surface plus consumption of the same surface water

Sources:
USACOE (1996) = Most conservative of 2,6-dinitrotoluene, fish muscle, from Risk Assessment Handbook, Volume II: Environmental Evaluation. US Army Corp of Engineers, EM 200-1-4. June, 1996
USACOE (1996) = Most conservative of trinitrotoluene, fish muscle from Risk Assessment Handbook, Volume II: Environmental Evaluation. US Army Corp of Engineers, EM 200-1-4. June, 1996
NLM (2006) = National Library of Medicine, ToxNet. Hazardous Substance Database, Online. <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen/HSDB>
EPA (1999) = Screening Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities. Office of Solid Waste and Emergency Response. EPA530-D-99-001B. August, 1999
EPA (2004) = Region 9 Preliminary Remediation Goals
NCEA = EPA National Center for Environmental Assessment

Table E-6

Surface Water - Sampling and Analysis Plan with Exceedance Summary
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, Kenvil, New Jersey

Page 1 of 4

					Analytical Sampling Requirements					Analytical Group SWQS Exceedances				
Drainage Area	Preliminary Location ID*	Location ID	Field Sample ID	Sample Collection Date	TOTAL DISSOLVED					TOTAL DISSOLVED				
					VOCS	SVOCS	METALS	METALS	E&E	VOCS	SVOCS	METALS	METALS	E&E
WESTERN	MIS-002	SW-R-A15-01	SW-R-A15-01(0.0-0.5)	07/11/2006	NA	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-003	SW-R-A15-02	SW-R-A15-02(0.0-0.5)	07/11/2006	NA	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-004	SW-R-A15-03	SW-R-A15-03(0.0-0.5)	07/11/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-005	SW-R-A15-04	SW-R-A15-04(0.25-0.75)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-038	SW-R-A15-05	SW-R-A15-05(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-007	SW-R-A15-06	SW-R-A15-06(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-008	SW-R-A15-07	SW-R-A15-07(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-006	SW-R-A15-08	SW-R-A15-08(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-009	SW-R-B14-01	SW-R-B14-01(0.0-0.5)	07/11/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	MIS-010	SW-R-B14-02	SW-R-B14-02(0.0-0.5)	07/11/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	MIS-011	SW-R-B15-01	SW-R-B15-01(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-012	SW-R-B15-02	SW-R-B15-02(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-013	SW-R-B15-03	SW-R-B15-03(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-014	SW-R-B15-04	SW-R-B15-04(0.0-0.5)	07/11/2006	X	NA	X	NA	X	Y	-	Y	-	-
WESTERN	MIS-015	SW-R-B15-05	SW-R-B15-05(0.0-0.5)	07/11/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-016	SW-R-B15-06	SW-R-B15-06(0.0-0.5)	07/11/2006	X	NA	NA	NA	X	Y	-	-	-	-
WESTERN	MIS-016	SW-R-B15-06	SW-R-B15-06(0.0-0.5)	08/16/2006	NA	NA	X	NA	NA	-	-	Y	-	-
WESTERN	MIS-018	SW-R-B15-07	SW-R-B15-07(0.0-0.5)	07/11/2006	X	NA	NA	NA	X	Y	-	-	-	-
WESTERN	MIS-017	SW-R-B15-08	SW-R-B15-08(0.25-0.75)	07/12/2006	X	NA	NA	NA	X	Y	-	-	-	-
WESTERN	MIS-022	SW-R-C15-01	SW-R-C15-01(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-021	SW-R-C15-02	SW-R-C15-02(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-020	SW-R-C15-03	SW-R-C15-03(0.0-0.5)	07/12/2006	X	NA	NA	NA	X	-	-	-	-	-
WESTERN	MIS-019	SW-R-C15-04	SW-R-C15-04(0.0-0.5)	07/12/2006	X	NA	NA	NA	X	Y	-	-	-	-
WESTERN	D-022	SW-R-D14-04	SW-R-D14-04(0.0-0.5)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	D-025	SW-R-D14-05	SW-R-D14-05(0.0-0.5)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	D-034	SW-R-D14-06	SW-R-D14-06(0.0-0.5)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	D-033	SW-R-D14-07	SW-R-D14-07(0.0-0.5)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	MIS-024	SW-R-D15-01	SW-R-D15-01(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-023	SW-R-D15-02	SW-R-D15-02(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-025	SW-R-D15-03	SW-R-D15-03(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-026	SW-R-D16-01	SW-R-D16-01(0.0-0.5)	06/08/2006	NA	X	X	NA	X	-	Y	Y	-	-
WESTERN	MIS-027	SW-R-D16-02	SW-R-D16-02(0.0-0.5)	06/08/2006	NA	X	X	NA	X	-	-	Y	-	-
WESTERN	MIS-029	SW-R-D16-03	SW-R-D16-03(0.0-0.5)	06/08/2006	NA	X	X	NA	X	-	-	Y	-	-
WESTERN	MIS-036	SW-R-E15-01	SW-R-E15-01(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-035	SW-R-E15-02	SW-R-E15-02(0.0-0.5)	06/07/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-034	SW-R-E15-03	SW-R-E15-03(0.0-0.5)	06/07/2006	X	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-033	SW-R-E15-04	SW-R-E15-04(0.0-0.5)	07/12/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	MIS-032	SW-R-E15-05	SW-R-E15-05(0.0-0.5)	07/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-031	SW-R-E15-06	SW-R-E15-06(0.75-1.25)	07/12/2006	NA	NA	X	NA	X	-	-	Y	-	Y
WESTERN	MIS-030	SW-R-E15-07	SW-R-E15-07(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	-
WESTERN	MIS-028	SW-R-E15-08	SW-R-E15-08(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	-	-	-
WESTERN	MIS-037	SW-R-E16-01	SW-R-E16-01(0.25-0.75)	06/07/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	D-002	SW-R-C12-01	SW-R-C12-01(0.25-0.75)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-003	SW-R-C12-02	SW-R-C12-02(0.0-0.5)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-006	SW-R-C12-03	SW-R-C12-03(0.0-0.5)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-005	SW-R-C12-04	SW-R-C12-04(0.0-0.5)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-

Table E-6

Surface Water - Sampling and Analysis Plan with Exceedance Summary
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, Kenvil, New Jersey

					Analytical Sampling Requirements					Analytical Group SWQS Exceedances				
Drainage Area	Preliminary Location ID*	Location ID	Field Sample ID	Sample Collection Date	VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E	VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E
CENTRAL	D-011	SW-R-D11-01	SW-R-D11-01(0.25-0.75)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-013	SW-R-D11-02	SW-R-D11-02(0.25-0.75)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-023	SW-R-D11-03	SW-R-D11-03(0.25-0.75)	05/24/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-029	SW-R-D11-04	SW-R-D11-04(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-018	SW-R-D12-01	SW-R-D12-01(0.5-1.0)	05/18/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	D-021	SW-R-D12-02	SW-R-D12-02(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-026	SW-R-D12-03	SW-R-D12-03(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-009	SW-R-D12-04	SW-R-D12-04(0.0-0.5)	06/08/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-010	SW-R-D12-05	SW-R-D12-05(0.0-0.5)	06/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-019	SW-R-D12-06	SW-R-D12-06(0.0-0.5)	06/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-015	SW-R-D12-07	SW-R-D12-07(0.0-0.5)	06/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-012	SW-R-D12-08	SW-R-D12-08(0.25-0.75)	06/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-055	SW-R-D13-01	SW-R-D13-01(0.0-0.5)	05/18/2006	NA	NA	NA	X	X	-	-	-	-	-
CENTRAL	D-030	SW-R-D13-02	SW-R-D13-02(0.0-0.5)	05/18/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-017	SW-R-D13-03	SW-R-D13-03(0.25-0.75)	05/18/2006	NA	X	X	X	X	-	Y	-	-	-
CENTRAL	D-016	SW-R-D13-04	SW-R-D13-04(0.0-0.5)	05/18/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	D-020	SW-R-D13-05	SW-R-D13-05(0.5-1.0)	05/24/2006	NA	X	X	X	X	-	-	Y	-	-
CENTRAL	D-027	SW-R-D13-06	SW-R-D13-06(0.0-0.5)	06/12/2006	NA	X	NA	NA	X	-	-	-	-	-
CENTRAL	D-024	SW-R-D13-07	SW-R-D13-07(0.25-0.75)	06/12/2006	NA	X	NA	NA	X	-	-	-	-	-
CENTRAL	D-028	SW-R-D13-08	SW-R-D13-08(0.25-0.75)	06/12/2006	NA	X	NA	NA	X	-	-	-	-	-
CENTRAL	D-031	SW-R-D14-01	SW-R-D14-01(0.0-0.5)	05/18/2006	NA	NA	X	NA	X	-	-	Y	-	Y
CENTRAL	D-035	SW-R-D14-02	SW-R-D14-02(0.25-0.75)	05/18/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	D-054	SW-R-D14-03	SW-R-D14-03(0.0-0.5)	05/18/2006	NA	NA	NA	X	X	-	-	-	-	-
CENTRAL	A-003	SW-R-E10-01	SW-R-E10-01(0.25-0.75)	05/24/2006	NA	NA	NA	X	X	-	-	-	-	-
CENTRAL	D-032	SW-R-E11-01	SW-R-E11-01(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-036	SW-R-E11-02	SW-R-E11-02(0.0-0.5)	06/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-042	SW-R-E14-01	SW-R-E14-01(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-041	SW-R-E14-02	SW-R-E14-02(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	Y	-	-
CENTRAL	D-040	SW-R-E14-03	SW-R-E14-03(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	D-044	SW-R-E15-09	SW-R-E15-09(1.25-1.75)	07/13/2006	NA	NA	X	NA	X	-	-	-	-	-
CENTRAL	A-002	SW-R-F10-01	SW-R-F10-01(0.0-0.5)	05/24/2006	NA	NA	NA	X	X	-	-	-	-	-
CENTRAL	A-001	SW-R-F10-02	SW-R-F10-02(0.0-0.5)	05/24/2006	NA	NA	NA	X	X	-	-	-	-	-
CENTRAL	MT-001	SW-R-F11-01	SW-R-F11-01(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	Y	Y	-	-
CENTRAL	MT-002	SW-R-F11-02	SW-R-F11-02(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	Y	Y	-	-
CENTRAL	MT-003	SW-R-F11-03	SW-R-F11-03(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	-	-	-
EASTERN	D-047	SW-R-F14-01	SW-R-F14-01(0.0-0.5)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-048	SW-R-F14-02	SW-R-F14-02(0.0-0.5)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-053	SW-R-F14-03	SW-R-F14-03(0.0-0.5)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-052	SW-R-F14-04	SW-R-F14-04(0.25-0.75)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-050	SW-R-F14-05	SW-R-F14-05(0.25-0.75)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-051	SW-R-F14-06	SW-R-F14-06(0.25-0.75)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	D-049	SW-R-F14-07	SW-R-F14-07(0.0-0.5)	05/19/2006	NA	NA	NA	X	X	-	-	-	-	-
EASTERN	MT-006	SW-R-G11-01	SW-R-G11-01(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	Y	-	-
EASTERN	MT-004	SW-R-G12-01	SW-R-G12-01(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	Y	-	-
EASTERN	MT-005	SW-R-G12-02	SW-R-G12-02(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	Y	-	-
EASTERN	D-046	SW-R-G12-03	SW-R-G12-03(0.0-0.5)	06/12/2006	NA	NA	X	NA	X	-	-	-	-	-

Table E-6

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Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, Kenvil, New Jersey

					Analytical Sampling Requirements					Analytical Group SWQS Exceedances				
Drainage Area	Preliminary Location ID*	Location ID	Field Sample ID	Sample Collection Date	VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E	VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E
EASTERN	D-045	SW-R-G12-04	SW-R-G12-04(0.0-0.5)	06/12/2006	NA	NA	X	NA	X	-	-	Y	-	-
EASTERN	MT-007	SW-R-H11-01	SW-R-H11-01(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	Y	-	-
EASTERN	MT-013	SW-R-I11-01	SW-R-I11-01(0.0-0.5)	05/09/2006	NA	X	X	NA	X	-	-	-	-	-
EASTERN	MT-014	SW-R-I11-02	SW-R-I11-02(0.25-0.75)	05/09/2006	NA	X	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-002	SW-R-J5-01	SW-R-J5-01(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-001	SW-R-J5-02	SW-R-J5-02(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-008	SW-R-K5-06	SW-R-K5-06(0.0-0.5)	03/30/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-007	SW-R-K5-07	SW-R-K5-07(0.0-0.5)	03/30/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-004	SW-R-K5-08	SW-R-K5-08(0.0-0.5)	03/30/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-003	SW-R-K5-09	SW-R-K5-09(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-006	SW-R-K5-10	SW-R-K5-10(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-005	SW-R-K5-11	SW-R-K5-11(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-014	SW-R-L7-01	SW-R-L7-01(1.25-1.75)	04/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-011	SW-R-L7-02	SW-R-L7-02(0.0-0.5)	07/06/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-010	SW-R-L7-03	SW-R-L7-03(0.0-0.5)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-009	SW-R-L7-04	SW-R-L7-04(0.0-0.75)	07/06/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-012	SW-R-L7-05	SW-R-L7-05(0.0-3.0)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-026	SW-R-M6-01	SW-R-M6-01(0.25-0.75)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-033	SW-R-M6-02	SW-R-M6-02(0.5-1.0)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-034	SW-R-M6-03	SW-R-M6-03(0.75-1.25)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-032	SW-R-M6-04	SW-R-M6-04(0.75-1.25)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-036	SW-R-M6-05	SW-R-M6-05(1.0-1.5)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-035	SW-R-M6-06	SW-R-M6-06(0.25-0.75)	04/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-030	SW-R-M6-07	SW-R-M6-07(0.0-3.0)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-024	SW-R-M6-08	SW-R-M6-08(0.0-3.5)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-027	SW-R-M6-09	SW-R-M6-09(0.0-3.5)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-023	SW-R-M6-10	SW-R-M6-10(0.0-3.5)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-029	SW-R-M6-11	SW-R-M6-11(0.0-3.0)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-028	SW-R-M6-12	SW-R-M6-12(0.0-4.0)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-031	SW-R-M6-13	SW-R-M6-13(0.0-3.0)	06/30/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-019	SW-R-M6-14	SW-R-M6-14(0.0-4.0)	07/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-020	SW-R-M6-15	SW-R-M6-15(0.0-4.0)	07/06/2006	NA	X	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-021	SW-R-M6-16	SW-R-M6-16(0.0-3.0)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-025	SW-R-M6-17	SW-R-M6-17(0.0-3.0)	07/06/2006	NA	X	NA	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-017	SW-R-M6-18	SW-R-M6-18(0.0-4.0)	07/06/2006	NA	X	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-015	SW-R-M6-19	SW-R-M6-19(0.0-3.0)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-013	SW-R-M6-20	SW-R-M6-20(0.0-1.0)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-022	SW-R-M7-06	SW-R-M7-06(0.5-1.0)	04/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-018	SW-R-M7-07	SW-R-M7-07(0.25-0.75)	04/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-016	SW-R-M7-08	SW-R-M7-08(0.0-2.0)	07/06/2006	NA	NA	X	NA	X	-	-	-	-	-
DUCK POND AND TRIBUTARIES	A1SW-041	SW-R-N5-01	SW-R-N5-01(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-038	SW-R-N5-02	SW-R-N5-02(0.0-0.5)	04/05/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-044	SW-R-N5-03	SW-R-N5-03(0.0-0.5)	04/07/2006	NA	NA	X	NA	X	-	-	Y	-	-
DUCK POND AND TRIBUTARIES	A1SW-037	SW-R-N5-04	SW-R-N5-04(0.0-0.5)	04/12/2006	NA	NA	X	X	X	-	-	-	Y	-
DUCK POND AND TRIBUTARIES	A1SW-042	SW-R-N5-05	SW-R-N5-05(0.25-0.75)	04/12/2006	NA	NA	X	X	X	-	-	-	Y	-
DUCK POND AND TRIBUTARIES	A1SW-047	SW-R-N5-06	SW-R-N5-06(0.0-0.5)	05/18/2006	NA	NA	X	NA	X	-	-	Y	-	-

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Volume E - Remedial Investigation Report
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Kenvil Works Facility, Kenvil, New Jersey

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Drainage Area	Preliminary Location ID*	Location ID	Field Sample ID	Sample Collection Date		VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E	VOCS	SVOCS	TOTAL METALS	DISSOLVED METALS	E&E
MISCELLANEOUS POND	A1SW-052	SW-R-K5-01	SW-R-K5-01(0.0-0.5)	03/30/2006		NA	NA	NA	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-052	SW-R-K5-01	SW-R-K5-01(0.0-0.5)	04/12/2006		NA	NA	NA	X	NA	-	-	-	Y	-
MISCELLANEOUS POND	A1SW-051	SW-R-K5-02	SW-R-K5-02(0.25-0.75)	03/30/2006		NA	NA	NA	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-051	SW-R-K5-02	SW-R-K5-02(0.25-0.75)	04/12/2006		NA	NA	NA	X	NA	-	-	-	Y	-
MISCELLANEOUS POND	A1SW-053	SW-R-K5-03	SW-R-K5-03(0.0-0.5)	03/30/2006		NA	NA	NA	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-053	SW-R-K5-03	SW-R-K5-03(0.0-0.5)	04/12/2006		NA	NA	NA	X	NA	-	-	-	Y	-
MISCELLANEOUS POND	A1SW-054	SW-R-K5-04	SW-R-K5-04(0.0-0.5)	03/30/2006		NA	NA	NA	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-054	SW-R-K5-04	SW-R-K5-04(0.0-0.5)	04/12/2006		NA	NA	NA	X	NA	-	-	-	-	-
MISCELLANEOUS POND	A1SW-050	SW-R-K5-05	SW-R-K5-05(0.0-0.5)	03/30/2006		NA	NA	NA	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-050	SW-R-K5-05	SW-R-K5-05(0.0-0.5)	04/12/2006		NA	NA	NA	X	NA	-	-	-	Y	-
MISCELLANEOUS POND	A1SW-059	SW-R-M7-01	SW-R-M7-01(0.0-0.5)	04/05/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-060	SW-R-M7-02	SW-R-M7-02(0.25-0.75)	04/06/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-040	SW-R-M7-03	SW-R-M7-03(0.5-1.0)	04/06/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-043	SW-R-M7-04	SW-R-M7-04(0.5-1.0)	04/06/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-039	SW-R-M7-05	SW-R-M7-05(0.25-0.75)	04/06/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-046	SW-R-N7-01	SW-R-N7-01(0.0-0.5)	04/05/2006		NA	NA	X	NA	X	-	-	Y	-	-
MISCELLANEOUS POND	A1SW-045	SW-R-N7-02	SW-R-N7-02(0.0-0.5)	04/05/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-056	SW-R-O4-01	SW-R-O4-01(0.5-1.0)	04/06/2006		NA	NA	X	NA	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-049	SW-R-O5-01	SW-R-O5-01(0.0-0.5)	05/18/2006		NA	NA	NA	X	X	-	-	-	-	-
MISCELLANEOUS POND	A1SW-048	SW-R-O5-02	SW-R-O5-02(1.0-1.5)	05/18/2006		NA	NA	NA	X	X	-	-	-	-	-

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

VOCS = Volatile organic constituents

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

* = Preliminary Location ID was established in the Remedial Investigation Work Plan

X = Sample was submitted for laboratory analysis for analytical group indicated on table

Y = Sample was identified by laboratory analysis at concentrations exceeding the SWQS for analytical group indicated on table

Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN AREA II DYNAMITE SW-R-D14-04 SW-R-D14-04(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-05 SW-R-D14-05(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-06 SW-R-D14-06(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-07 SW-R-D14-07(0.0-0.5) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.100 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0059 J	0.0235	0.0084 J	0.0615
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0193	0.153	0.0223	0.102
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.100 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U	0.0250 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	0.100 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0503	0.812	0.0552	0.926
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.47 J	0.97
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-01 SW-R-A15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-02 SW-R-A15-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-03 SW-R-A15-03(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0115	0.0104	0.0251
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0150 U	0.0676
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0551	0.0446	0.0727
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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E&E = Explosive and energetic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-04 SW-R-A15-04(0.25-0.75) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-05 SW-R-A15-05(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-06 SW-R-A15-06(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0100 U	0.0032 J	0.0199
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0150 U	0.0382
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000063 J	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0123 J	0.0265	0.0865
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-07 SW-R-A15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-A15-08 SW-R-A15-08(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B14-01 SW-R-B14-01(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0400 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0668	0.0022 J	0.0728
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.120	0.0150 U	0.152
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00074 J
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0400 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0100 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0400 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.639	0.0256	0.470
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	1.7 J
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	2.4 J
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 J	0.60 UJ	5.5 J
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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E&E = Explosive and energetic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-B14-02 SW-R-B14-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-01 SW-R-B15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-02 SW-R-B15-02(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	5 U	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0400 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0606	0.0427	0.0126
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.115	0.0661	0.0174
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00024	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0400 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0100 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0400 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.476	0.229	0.108
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	2.5 J	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	4.5 J	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	8.9 J	0.32 J	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-03 SW-R-B15-03(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-04 SW-R-B15-04(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-05 SW-R-B15-05(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	4 J	5 U
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0400 U	0.0498
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0025 J	0.0883	0.215
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.343	1.02
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00062 J	0.0026
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0400 U	0.0284 J
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0100 U	0.0100 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0400 U	0.0400 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0272	0.453	1.64
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 8/16/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-B15-07 SW-R-B15-07(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	NA	5 U
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	6	NA	0.9 J
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	0.0357	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	0.119	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.0020 U	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	0.0200 U	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	0.0050 U	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	1.60	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	NA	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-08 SW-R-B15-08(0.25-0.75) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-01 SW-R-C15-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-02 SW-R-C15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	2 J	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	0.0100 U	0.0050 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	0.0200 U	0.0081 J
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	0.0087 J	0.0500
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-C15-03 SW-R-C15-03(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-C15-04 SW-R-C15-04(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-D15-01 SW-R-D15-01(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	1 J	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	0.000081 J
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	0.0152 J
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-D15-02 SW-R-D15-02(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-D15-03 SW-R-D15-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-D16-01 SW-R-D16-01(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	5 U
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	1 J
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	1 J
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0103 J	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0215	0.0300	0.0559
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0481	0.268	0.279
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00062 J
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0027 J	0.0029 J
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.224	0.798	2.06
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-D16-02 SW-R-D16-02(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-D16-03 SW-R-D16-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-E15-01 SW-R-E15-01(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 U	5 U	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	5 U	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0235	0.0261	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0693	0.115	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000072 J	0.0015	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.724	1.50	0.0200 U
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-02 SW-R-E15-02(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-03 SW-R-E15-03(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-04 SW-R-E15-04(0.0-0.5) 7/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	5 U	5 U	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	5 U	5 U	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0177 J	0.0119 J
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0060 J	0.0990	0.0347
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0210	0.375	0.174
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000058 J	0.0010 U	0.00027
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0155 J	0.0138 J
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0042 J	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0792	0.910	0.571
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	9.3
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.5 J

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE SW-R-E15-05 SW-R-E15-05(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-E15-06 SW-R-E15-06(0.75-1.25) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE SW-R-E15-07 SW-R-E15-07(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0145	0.0128	0.0060 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.114	0.0826	0.0129 J
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000073 J	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0714	0.0768	0.100
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	1.1	0.70 J
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.81 J	0.90 J
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	1.4	1.5
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.29 J	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-7

Surface Water - Analytical Results - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-08 SW-R-E15-08(1.25-1.75) 7/13/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E16-01 SW-R-E16-01(0.25-0.75) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
VOCS	BROMODICHLOROMETHANE	UG/L	0.55	NS	NS	NA	NA
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0035 J	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0150 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.276	0.0200 U
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.78 J	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.88 J	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	1.5	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-C12-01 SW-R-C12-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-02 SW-R-C12-02(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-03 SW-R-C12-03(0.0-0.5) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0152 J	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0068 J	0.0284	0.0077 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.570 J	0.652	0.0270
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0198 J	0.407	0.117
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	1.2 J	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	3.2 J	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-C12-04 SW-R-C12-04(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-01 SW-R-D11-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-02 SW-R-D11-02(0.25-0.75) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0260	0.0389	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.140	0.400	0.0135
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0693	0.571	0.0422
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.0019	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.187	3.75	0.183
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D11-03 SW-R-D11-03(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-04 SW-R-D11-04(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-01 SW-R-D12-01(0.5-1.0) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0508 J	0.0164 J	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	1.03	0.0188	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	2.32	0.0709	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00044 J	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.100 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0250 U	0.0018 J	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.100 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	3.65	0.186	0.0140 J
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-02 SW-R-D12-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-03 SW-R-D12-03(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-D12-04 SW-R-D12-04(0.0-0.5) 6/8/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
		CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
		TOTAL METALS ARSENIC	MG/L	0.000017	NS	NS	0.0390	0.0479	0.0200 U
TOTAL METALS		COPPER	MG/L	1.3	NS	NS	0.0589	0.103	0.0051 J
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	0.267	0.379	0.0274
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00041 J	0.00020 U
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	0.0159 J	0.0116 J	0.0050 U
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS		ZINC	MG/L	7.4	NS	NS	0.551	1.26	0.0713
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS		COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS		ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E		2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E		2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E		4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E		OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-05 SW-R-D12-05(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-06 SW-R-D12-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-07 SW-R-D12-07(0.0-0.5) 6/12/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
		CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS		ARSENIC	MG/L	0.000017	NS	NS	0.173	0.0334	0.304
TOTAL METALS		COPPER	MG/L	1.3	NS	NS	0.231	0.135	0.216
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	1.32	0.385	1.16
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	0.000084 J	0.000075 J	0.00020 U
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	0.0218	0.0200 U	0.0719
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	0.0122	0.0151	0.0162
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0321
TOTAL METALS		ZINC	MG/L	7.4	NS	NS	2.48	1.79	2.63
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS		COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS		ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E		2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E		2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E		4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E		OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-08 SW-R-D12-08(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-01 SW-R-D13-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-02 SW-R-D13-02(0.0-0.5) 5/18/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
		CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
		TOTAL METALS ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	NA	0.0319
TOTAL METALS		COPPER	MG/L	1.3	NS	NS	0.0100 U	NA	0.0304
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	0.0092 J	NA	0.281
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	0.00020 U	NA	0.00020 U
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	0.0200 U	NA	0.0200 U
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	0.0050 U	NA	0.0084
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	NA	0.0200 U
TOTAL METALS		ZINC	MG/L	7.4	NS	NS	0.0289	NA	0.478
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	NA	0.0200 U	NA
DISSOLVED METALS		COPPER	MG/L	NS	0.0074	0.011	NA	0.0100 U	NA
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	NA	0.0200 U	NA
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	NA	0.00020 U	NA
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	NA	0.0200 U	NA
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0025	NA	0.0050 U	NA
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	NA	0.0200 U	NA
DISSOLVED METALS		ZINC	MG/L	NS	0.0998	0.0998	NA	0.0098 J	NA
E&E		2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 UJ	0.60 UJ
E&E		2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 UJ	0.60 UJ
E&E		4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 UJ	0.60 UJ
E&E		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 UJ	0.60 UJ
E&E		OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-03 SW-R-D13-03(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-04 SW-R-D13-04(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-05 SW-R-D13-05(0.5-1.0) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 J	NA	5 U
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	3 J	NA	1 J
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	NA	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	NA	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	NA	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	NA	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0100 U	0.0022 J	0.010 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	0.0200 U	0.131
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0086 J	0.0085 J	0.131
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	NA	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	0.0100 U	NA	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	NA	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	NA	0.000072 J
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	0.0050 U	NA	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	NA	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	0.0082 J	NA	0.0133 J
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-06 SW-R-D13-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-07 SW-R-D13-07(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-08 SW-R-D13-08(0.25-0.75) 6/12/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	50 U	5 U	5 U
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	50 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	50 U	5 U	5 U
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	50 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	50 U	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	50 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	50 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	50 U	5 U	5 U
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	50 U	5 U	5 U
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D14-01 SW-R-D14-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D14-02 SW-R-D14-02(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D14-03 SW-R-D14-03(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0050 J	0.0021 J	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0211	0.0200 U	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0104 J	0.0200 U	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0198 J	0.0066 J	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	0.00020 U
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	NA	NA	0.0200 U
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	11 J	0.87 J	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	16 J	2.4 J	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	21 J	2.4 J	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.52 J	0.60 UJ	0.30 J
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E11-01 SW-R-E11-01(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E11-02 SW-R-E11-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E14-01 SW-R-E14-01(1.25-1.75) 7/13/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
		CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS		ARSENIC	MG/L	0.000017	NS	NS	0.153	0.0231	0.0200 U
TOTAL METALS		COPPER	MG/L	1.3	NS	NS	0.0692	0.0178	0.0045 J
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	0.270	0.0329	0.0452
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	0.0024 J	0.0050 U	0.0050 U
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS		ZINC	MG/L	7.4	NS	NS	0.733	0.0869	0.0230
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS		COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS		ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E		2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E		2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E		4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E		OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E14-02 SW-R-E14-02(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E14-03 SW-R-E14-03(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E15-09 SW-R-E15-09(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0134 J	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0126	0.0100 U	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.223	0.0150 U	0.0150 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00011 J	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0792	0.0086 J	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.33 J	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.41 J	0.37 J
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.72	0.60
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA III A-LINE SW-R-E10-01 SW-R-E10-01(0.25-0.75) 5/24/2006	CENTRAL AREA III A-LINE SW-R-F10-01 SW-R-F10-01(0.0-0.5) 5/24/2006	CENTRAL AREA III A-LINE SW-R-F10-02 SW-R-F10-02(0.0-0.5) 5/24/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS		CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS		ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS		COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS		LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS		MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS		SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS		SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS		THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS		ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS		ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS		COPPER	MG/L	NS	0.0074	0.011	0.0100 U	0.0100 U	0.0100 U
DISSOLVED METALS		LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS		MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U	0.00020 U
DISSOLVED METALS		SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS		SILVER	MG/L	NS	NS	0.0025	0.0050 U	0.0050 U	0.0050 U
DISSOLVED METALS		THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS		ZINC	MG/L	NS	0.0998	0.0998	0.0144 J	0.0294	0.0284
E&E		2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E		2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E		4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E		HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E		OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-8

Surface Water - Analytical Results - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA III MAINTENANCE SW-R-F11-01 SW-R-F11-01(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-02 SW-R-F11-02(0.0-0.5) 5/9/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-03 SW-R-F11-03(0.0-0.5) 5/9/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS		2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 UJ	5 U	5 U
		2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 UJ	5 U	5 U
		BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 UJ	5 U	5 U
		BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 UJ	1 J	5 U
		BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	1 J	2 J	5 U
		BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 UJ	1 J	5 U
		BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 UJ	5 U	5 U
		bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 UJ	5 U	5 U
		CHRYSENE	UG/L	3.8	NS	NS	5 UJ	1 J	5 U
		TOTAL METALS ARSENIC	MG/L	0.000017	NS	NS	0.0435	0.469	0.0200 U
		TOTAL METALS COPPER	MG/L	1.3	NS	NS	0.121	2.40	0.0026 J
		TOTAL METALS LEAD	MG/L	0.005	NS	NS	0.125	1.32	0.0200 U
		TOTAL METALS MERCURY	MG/L	0.00005	NS	NS	0.0037	0.0130	0.00020 U
		TOTAL METALS SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.400 U	0.0200 U
		TOTAL METALS SILVER	MG/L	0.17	NS	NS	0.0050 U	0.100 U	0.0050 U
DISSOLVED METALS		TOTAL METALS THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.400 U	0.0200 U
		TOTAL METALS ZINC	MG/L	7.4	NS	NS	0.614	2.46	0.0281
		DISSOLVED METALS ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
		DISSOLVED METALS COPPER	MG/L	NS	0.0074	0.011	NA	NA	NA
		DISSOLVED METALS LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
		DISSOLVED METALS MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
		DISSOLVED METALS SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
		DISSOLVED METALS SILVER	MG/L	NS	NS	0.0025	NA	NA	NA
		DISSOLVED METALS THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
		DISSOLVED METALS ZINC	MG/L	NS	0.0998	0.0998	NA	NA	NA
		E&E 2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
		E&E 2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
		E&E 4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
		E&E HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
		E&E OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-01 SW-R-F14-01(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-02 SW-R-F14-02(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-03 SW-R-F14-03(0.0-0.5) 5/19/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	0.0100 U	0.0100 U	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U	0.00020 U
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	0.0050 U	0.0050 U	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	0.0200 U	0.0200 U	0.0200 U
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-04 SW-R-F14-04(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-05 SW-R-F14-05(0.25-0.75) 5/19/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	0.0100 U	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	0.0050 U	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	0.0200 U	0.0200 U
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-F14-06 SW-R-F14-06(0.25-0.75) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-07 SW-R-F14-07(0.0-0.5) 5/19/2006	EASTERN AREA II DYNAMITE SW-R-F14-07 SW-R-F14-07(0.0-0.5) 5/19/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Exceed?
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U	N
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	0.0100 U	0.0100 U	N
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U	N
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U	N
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	N
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	0.0050 U	0.0050 U	N
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U	N
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	0.0200 U	0.0200 U	N
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	N
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	N
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	N
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	N
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	N

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-G12-03 SW-R-G12-03(0.0-0.5) 6/12/2006	EASTERN AREA II DYNAMITE SW-R-G12-04 SW-R-G12-04(0.0-0.5) 6/12/2006	EASTERN AREA III MAINTENANCE SW-R-G11-01 SW-R-G11-01(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	50 U
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	50 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	50 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	50 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	50 U
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	50 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	50 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	50 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	50 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.106	0.162
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0100 U	0.138	0.155
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	1.01	3.21
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.000079 J	0.0036
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0210	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0194 J	4.45	1.44
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA III MAINTENANCE SW-R-G12-01 SW-R-G12-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-02 SW-R-G12-02(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-H11-01 SW-R-H11-01(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.185	0.0277	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.213	0.0298	0.0125
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	2.97	0.253	0.0334
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.0040	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.010 J	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	1.39	0.162	0.0665
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-9

Surface Water - Analytical Results - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA III MAINTENANCE SW-R-I11-01 SW-R-I11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-I11-02 SW-R-I11-02(0.25-0.75) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0028 J	0.0021 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0148	0.0236	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0099	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.1982	0.1982	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-J5-01 SW-R-J5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-J5-02 SW-R-J5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-06 SW-R-K5-06(0.0-0.5) 3/30/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.100 U	0.0726 J	0.0200 U	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.114	0.435	0.0100 U	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.260	1.24	0.0200 U	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.100 U	0.100 U	0.0200 U	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0250 U	0.0122 J	0.0050 U	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.149	0.100 U	0.0200 U	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.930	4.56	0.0286 J	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 UJ	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 UJ	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 UJ	

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-K5-07 SW-R-K5-07(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-08 SW-R-K5-08(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-09 SW-R-K5-09(0.0-0.5) 4/5/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.100 U	0.0200 U	0.0541 J	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.217	0.0025 J	0.420	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.584	0.0200 U	1.42	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00023	0.00020 U	0.00020 U	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.100 U	0.0200 U	0.100 U	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0250 U	0.0050 U	0.0250 U	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.100 U	0.0200 U	0.104	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	7.62	0.0166 J	2.68	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 U	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	0.60 UJ	0.60 U	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	0.60 UJ	0.60 U	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 UJ	2.0 U	

Notes:

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SVOCS = Semi-volatile organic constituents

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-K5-10 SW-R-K5-10(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-11 SW-R-K5-11(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-L7-01 SW-R-L7-01(1.25-1.75) 4/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.100 U	0.176	0.0200 U	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.423	0.871	0.0100 U	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	1.26	3.00	0.0200 U	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.100 U	0.100 U	0.0200 U	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0250 U	0.0118 J	0.0050 U	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.100 U	0.100 U	0.0200 U	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	2.43	4.38	0.0110 J	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U	

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-02 SW-R-L7-02(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-03 SW-R-L7-03(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-04 SW-R-L7-04(0.0-0.75) 7/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0047 J	0.0100 U	0.0034 J	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0113 J	0.0150 U	0.0125 J	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0257	0.0108 J	0.0188 J	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U	

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

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Table E-10

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Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-L7-05 SW-R-L7-05(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-01 SW-R-M6-01(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-02 SW-R-M6-02(0.5-1.0) 4/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	NA	5 U	5 U
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	NA	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	NA	5 U	5 U
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	NA	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	NA	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	NA	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	NA	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	NA	5 U	5 U
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	NA	5 U	5 U
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	0.0200 U	NA	NA
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	0.0100 U	NA	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	0.0150 U	NA	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	0.00020 U	NA	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	0.0200 U	NA	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	0.0050 U	NA	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	0.0200 U	NA	NA
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	0.0200 U	NA	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-03 SW-R-M6-03(0.75-1.25) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-04 SW-R-M6-04(0.75-1.25) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-05 SW-R-M6-05(1.0-1.5) 4/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
	SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U
	SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 U	5 U	5 U
	SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
	SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U
	SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U
	SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	5 U	5 U
	SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U
	SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U
	SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U
	TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
	TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
	TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
	TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
	TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
	TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
	TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
	TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
	DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
	DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA
	DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
	DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
	DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
	DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA
	DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
	DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA
	E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
	E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
	E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
	E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
	E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-06 SW-R-M6-06(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M6-07 SW-R-M6-07(0.0-3.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-08 SW-R-M6-08(0.0-3.5) 6/30/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	5 U	5 U	5 U	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	5 U	5 U	5 U	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	5 U	5 U	5 U	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	5 U	5 U	5 U	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	5 U	5 U	5 U	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	5 U	5 U	5 U	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	5 U	5 U	5 U	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	5 U	5 U	5 U	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	NA	NA	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	NA	NA	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	NA	NA	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U	

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-09 SW-R-M6-09(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-10 SW-R-M6-10(0.0-3.5) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-11 SW-R-M6-11(0.0-3.0) 6/30/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	5 U	5 U	5 U
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	5 U	5 U	5 U
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	5 U	5 U	5 U
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-12 SW-R-M6-12(0.0-4.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-13 SW-R-M6-13(0.0-3.0) 6/30/2006	DUCK POND AREA I STORAGE SW-R-M6-14 SW-R-M6-14(0.0-4.0) 7/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	5 U	5 U	5 U
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	5 U	5 U	5 U
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	5 U	5 U	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	5 U	5 U	5 U
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	5 U	5 U	5 U
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-15 SW-R-M6-15(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-16 SW-R-M6-16(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-17 SW-R-M6-17(0.0-3.0) 7/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	5 U	NA	5 U
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	5 U	NA	5 U
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	5 U	NA	5 U
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	5 U	NA	5 U
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	5 U	NA	5 U
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	5 U	NA	5 U
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	5 U	NA	5 U
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	NA
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	0.0100 U	0.0100 U	NA
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	0.0150 U	0.0150 U	NA
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	NA
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	0.0200 U	0.0200 U	NA
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	0.0050 U	0.0050 U	NA
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	NA
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	0.0200 U	0.0200 U	NA
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M6-18 SW-R-M6-18(0.0-4.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-19 SW-R-M6-19(0.0-3.0) 7/6/2006	DUCK POND AREA I STORAGE SW-R-M6-20 SW-R-M6-20(0.0-1.0) 7/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	5 U	NA	NA
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	5 U	NA	NA
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	5 U	NA	NA
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	5 U	NA	NA
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	5 U	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	5 U	NA	NA
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	5 U	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	5 U	NA	NA
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	5 U	NA	NA
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	0.0100 U	0.0100 U	0.0100 U
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	0.0150 U	0.0150 U	0.0150 U
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

U = Indicates that the constituent was analyzed for but not detected, number indicates the detection limit

Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-M7-06 SW-R-M7-06(0.5-1.0) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-07 SW-R-M7-07(0.25-0.75) 4/6/2006	DUCK POND AREA I STORAGE SW-R-M7-08 SW-R-M7-08(0.0-2.0) 7/6/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	NA	NA	NA
SVOCS	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	NA	NA	NA
SVOCS	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	NA	NA	NA
SVOCS	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	NA	NA	NA
SVOCS	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	NA	NA	NA
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	NA	NA	NA
SVOCS	CHRYSENE		UG/L	3.8	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC		MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER		MG/L	1.3	NS	NS	0.0100 U	0.0100 U	0.0100 U
TOTAL METALS	LEAD		MG/L	0.005	NS	NS	0.0200 U	0.0200 U	0.0150 U
TOTAL METALS	MERCURY		MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM		MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER		MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM		MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC		MG/L	7.4	NS	NS	0.0119 J	0.0129 J	0.0200 U
DISSOLVED METALS	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
DISSOLVED METALS	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
DISSOLVED METALS	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE		UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE		UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)		UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)		UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

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Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-01 SW-R-N5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-02 SW-R-N5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-03 SW-R-N5-03(0.0-0.5) 4/7/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE		UG/L	0.11	NS	NS	NA	NA	NA
	2,6-DINITROTOLUENE		UG/L	NS	NS	NS	NA	NA	NA
	BENZO(a)ANTHRACENE		UG/L	0.038	NS	NS	NA	NA	NA
	BENZO(a)PYRENE		UG/L	0.0038	NS	NS	NA	NA	NA
	BENZO(b)FLUORANTHENE		UG/L	0.038	NS	NS	NA	NA	NA
	BENZO(g,h,i)PERYLENE		UG/L	195	NS	NS	NA	NA	NA
	BENZO(k)FLUORANTHENE		UG/L	0.38	NS	NS	NA	NA	NA
	bis(2-ETHYLHEXYL) PHTHALATE		UG/L	1.2	NS	NS	NA	NA	NA
	CHRYSENE		UG/L	3.8	NS	NS	NA	NA	NA
	TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
	TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0049 J	0.0110	0.0096 J
	TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0102 J	0.0220	0.0356
	TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
	TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER		MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
	THALLIUM		MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
	ZINC		MG/L	7.4	NS	NS	0.0438	0.0676	0.0613
	ARSENIC		MG/L	NS	0.15	0.34	NA	NA	NA
	COPPER		MG/L	NS	0.0046	0.0065	NA	NA	NA
	LEAD		MG/L	NS	0.0054	0.038	NA	NA	NA
	MERCURY		MG/L	NS	0.00077	0.0014	NA	NA	NA
	SELENIUM		MG/L	NS	0.005	0.02	NA	NA	NA
	SILVER		MG/L	NS	NS	0.0009	NA	NA	NA
	THALLIUM		MG/L	NS	NS	NS	NA	NA	NA
	ZINC		MG/L	NS	0.0621	0.0621	NA	NA	NA
	E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
	E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
	E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
	E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	12 U	12 U	0.60 U
	E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	40 U	40 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-10

Surface Water - Analytical Results - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

				Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-04 SW-R-N5-04(0.0-0.5) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-05 SW-R-N5-05(0.25-0.75) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-06 SW-R-N5-06(0.0-0.5) 5/18/2006
Analytical Group		Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	
SVOCS	2,6-DINITROTOLUENE	UG/L	NS	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)ANTHRACENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	
SVOCS	BENZO(g,h,i)PERYLENE	UG/L	195	NS	NS	NA	NA	NA	
SVOCS	BENZO(k)FLUORANTHENE	UG/L	0.38	NS	NS	NA	NA	NA	
SVOCS	bis(2-ETHYLHEXYL) PHTHALATE	UG/L	1.2	NS	NS	NA	NA	NA	
SVOCS	CHRYSENE	UG/L	3.8	NS	NS	NA	NA	NA	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0029 J	0.0028 J	0.0175	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	0.0200 U	0.0256	
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U	
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U	
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U	
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0286	0.0292	0.119	
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U	NA	
DISSOLVED METALS	COPPER	MG/L	NS	0.0046	0.0065	0.0100 U	0.0100 U	NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0085 J	0.0107 J	NA	
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U	NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U	NA	
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0009	0.0050 U	0.0050 U	NA	
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U	NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0621	0.0621	0.0248	0.0259	NA	
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	60 UJ	
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	60 UJ	
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	60 UJ	
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	60 UJ	
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	2.0 U	200 UJ	

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

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Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-01 SW-R-K5-01(0.0-0.5) 3/30/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-01 SW-R-K5-01(0.0-0.5) 4/12/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	0.0200 U	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	0.0055 J	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0101 J	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	0.00024	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0103 J	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	0.0200 U	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	NA	0.504	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 UJ	NA	12 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 UJ	NA	40 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the compound was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-02 SW-R-K5-02(0.25-0.75) 4/12/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-03 SW-R-K5-03(0.0-0.5) 3/30/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-03 SW-R-K5-03(0.0-0.5) 4/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	NA	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	0.0140	NA	0.0085 J
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0199 J	NA	0.0111 J
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00015 J	NA	0.00032
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	NA	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	NA	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	0.153	NA	0.349
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	0.60 UJ	NA
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	0.60 UJ	NA
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	0.60 UJ	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	0.60 UJ	NA
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	NA	2.0 UJ	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the compound was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 3/30/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-04 SW-R-K5-04(0.0-0.5) 4/12/2006	MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-05 SW-R-K5-05(0.0-0.5) 3/30/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	0.0200 U	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	0.0019 J	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0200 U	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	0.000089 J	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	0.0200 U	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	0.0050 U	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	0.0200 U	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	NA	0.0498	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 UJ	NA	0.60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	12 UJ	NA	0.60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	40 UJ	NA	2.0 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
U = Indicates that the compound was analyzed for but not detected, number indicates the detection limit
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I DEVELOPMENT SW-R-K5-05 SW-R-K5-05(0.0-0.5) 4/12/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-M7-01 SW-R-M7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-M7-02 SW-R-M7-02(0.25-0.75) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	0.0103	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	0.0396	0.0526
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	0.0724	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0400	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00014 J	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	0.150	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	NA	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	NA	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	NA	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	NA	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I STORAGE SW-R-M7-03 SW-R-M7-03(0.5-1.0) 4/6/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-M7-04 SW-R-M7-04(0.5-1.0) 4/6/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-M7-05 SW-R-M7-05(0.25-0.75) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0100 U	0.0031 J	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	0.0368	0.0955	0.0712
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
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Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I STORAGE SW-R-N7-01 SW-R-N7-01(0.0-0.5) 4/5/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-N7-02 SW-R-N7-02(0.0-0.5) 4/5/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-O4-01 SW-R-O4-01(0.5-1.0) 4/6/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0458	0.0200 U	0.0200 U
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	0.0364	0.0049 J	0.0100 U
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0271	0.0200 U	0.0200 U
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00020 U	0.00020 U	0.00020 U
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	0.0050 U	0.0050 U	0.0050 U
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.0200 U	0.0200 U	0.0200 U
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	1.16	0.0783	0.0097 J
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	NA	NA	NA
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	NA	NA	NA
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	NA	NA	NA
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	NA	NA	NA
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	NA	NA	NA
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	NA	NA	NA
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	NA	NA	NA
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	0.60 UJ	0.60 UJ	0.60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	0.60 U	0.60 U	0.60 U
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	0.60 U	0.60 U	0.60 U
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	2.0 U	2.0 U	2.0 U

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Table E-11

Surface Water - Analytical Results - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			MISCELLANEOUS PONDS AREA I STORAGE SW-R-O5-01 SW-R-O5-01(0.0-0.5) 5/18/2006	MISCELLANEOUS PONDS AREA I STORAGE SW-R-O5-02 SW-R-O5-02(1.0-1.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	NA	NA
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA
TOTAL METALS	SELENIUM	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	SILVER	MG/L	0.17	NS	NS	NA	NA
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	NA	NA
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	NA	NA
DISSOLVED METALS	ARSENIC	MG/L	NS	0.15	0.34	0.0200 U	0.0200 U
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	0.0100 U	0.0100 U
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0200 U	0.0200 U
DISSOLVED METALS	MERCURY	MG/L	NS	0.00077	0.0014	0.00020 U	0.00020 U
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0200 U	0.0200 U
DISSOLVED METALS	SILVER	MG/L	NS	NS	0.0015	0.0050 U	0.0050 U
DISSOLVED METALS	THALLIUM	MG/L	NS	NS	NS	0.0200 U	0.0200 U
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	0.0091 J	0.0111 J
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	60 UJ	60 UJ
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	60 UJ	60 UJ
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	60 UJ	60 UJ
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	60 UJ	60 UJ
E&E	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	UG/L	1735	NS	NS	200 UJ	200 UJ

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the compound was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
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Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN AREA II DYNAMITE SW-R-D14-04 SW-R-D14-04(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-05 SW-R-D14-05(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-06 SW-R-D14-06(0.0-0.5) 7/13/2006	WESTERN AREA II DYNAMITE SW-R-D14-07 SW-R-D14-07(0.0-0.5) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0193	0.153	0.0223	0.102
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	0.47 J	0.97

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

VOCS = Volatile organic constituents

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-03 SW-R-A15-03(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-04 SW-R-A15-04(0.25-0.75) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-06 SW-R-A15-06(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	-	-
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0676	-	0.0382
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.000063 J	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-A15-07 SW-R-A15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-01 SW-R-B14-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B14-02 SW-R-B14-02(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.120	0.152	0.115
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00074 J	0.00024
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	1.7 J	2.5 J
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	8.9 J
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

VOCS = Volatile organic constituents

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-01 SW-R-B15-01(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-02 SW-R-B15-02(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-04 SW-R-B15-04(0.0-0.5) 7/11/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	-	4 J
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0661	0.0174	0.343
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00062 J
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-05 SW-R-B15-05(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-06 SW-R-B15-06(0.0-0.5) 8/16/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	-	6	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0498	NA	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	1.02	NA	0.119
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.0026	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	NA
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	NA
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-07 SW-R-B15-07(0.0-0.5) 7/11/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-B15-08 SW-R-B15-08(0.25-0.75) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-02 SW-R-C15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	0.9 J	2 J	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	NA	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	NA	0.0081 J
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	NA	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
VOCS = Volatile organic constituents
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-C15-04 SW-R-C15-04(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-01 SW-R-D15-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-02 SW-R-D15-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	1 J	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA	-	0.0481
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	NA	0.000081 J	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D15-03 SW-R-D15-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-01 SW-R-D16-01(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-02 SW-R-D16-02(0.0-0.5) 6/8/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	1 J	-
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0103 J	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.268	0.279	0.0693
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00062 J	0.000072 J
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-D16-03 SW-R-D16-03(0.0-0.5) 6/8/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-02 SW-R-E15-02(0.0-0.5) 6/7/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-03 SW-R-E15-03(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	-	-
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	-	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	0.0177 J
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.115	0.0210	0.375
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.0015	0.000058 J	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-04 SW-R-E15-04(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-05 SW-R-E15-05(0.0-0.5) 7/12/2006	WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-06 SW-R-E15-06(0.75-1.25) 7/12/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0119 J	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.174	0.114	0.0826
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.00027	0.000073 J	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	1.1
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	9.3	-	-

Notes:
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SWQS = Surface water quality standard
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Table E-12

Surface Water - Exceedance Summary - Western Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			WESTERN MISCELLANEOUS/OFFSITE MISCELLANEOUS/OFFSITE SW-R-E15-07 SW-R-E15-07(1.25-1.75) 7/13/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result
VOCS	TETRACHLOROETHYLENE (PCE)	UG/L	0.34	NS	NS	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0129 J
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

VOCS = Volatile organic constituents

SVOCS = Semi-volatile organic constituents

E&E = Explosive and energetic constituents

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

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Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-C12-01 SW-R-C12-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-02 SW-R-C12-02(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-03 SW-R-C12-03(0.0-0.5) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-C12-04 SW-R-C12-04(0.0-0.5) 5/24/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0152 J	-	0.0260
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.570 J	0.652	0.0270	0.0693
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
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Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D11-01 SW-R-D11-01(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-02 SW-R-D11-02(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-03 SW-R-D11-03(0.25-0.75) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D11-04 SW-R-D11-04(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0389	-	0.0508 J	0.0164 J
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.571	0.0422	2.32	0.0709
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.0019	-	0.00044 J	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
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Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

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Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0390	0.0479	-	0.173
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.267	0.379	0.0274	1.32
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	0.00041 J	-	0.000084 J
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
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Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D12-06 SW-R-D12-06(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-07 SW-R-D12-07(0.0-0.5) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D12-08 SW-R-D12-08(0.25-0.75) 6/12/2006	CENTRAL AREA II DYNAMITE SW-R-D13-02 SW-R-D13-02(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0334	0.304	-	0.0319
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.385	1.16	0.0092 J	0.281
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000075 J	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	0.0321	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-D13-03 SW-R-D13-03(0.25-0.75) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-D13-05 SW-R-D13-05(0.5-1.0) 5/24/2006	CENTRAL AREA II DYNAMITE SW-R-D14-01 SW-R-D14-01(0.0-0.5) 5/18/2006	CENTRAL AREA II DYNAMITE SW-R-E11-01 SW-R-E11-01(0.0-0.5) 6/7/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	1 J	-	NA	NA
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	-	-	NA	NA
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	-	-	NA	NA
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-	0.153
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	-	0.131	0.0211	0.270
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	0.0104 J	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	11 J	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	16 J	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	21 J	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	0.52 J	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA II DYNAMITE SW-R-E11-02 SW-R-E11-02(0.0-0.5) 6/7/2006	CENTRAL AREA II DYNAMITE SW-R-E14-01 SW-R-E14-01(1.25-1.75) 7/13/2006	CENTRAL AREA II DYNAMITE SW-R-E14-02 SW-R-E14-02(1.25-1.75) 7/13/2006	CENTRAL AREA III MAINTENANCE SW-R-F11-01 SW-R-F11-01(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	NA	NA	NA	-
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	NA	NA	NA	-
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	NA	NA	NA	1 J
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.0231	-	0.0134 J	0.0435
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0329	0.0452	0.223	0.125
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00011 J	0.0037
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-	-	-	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-	-	-	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-	-	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-13

Surface Water - Exceedance Summary - Central Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			CENTRAL AREA III MAINTENANCE SW-R-F11-02 SW-R-F11-02(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result
SVOCS	2,4-DINITROTOLUENE	UG/L	0.11	NS	NS	-
SVOCS	BENZO(a)PYRENE	UG/L	0.0038	NS	NS	1 J
SVOCS	BENZO(b)FLUORANTHENE	UG/L	0.038	NS	NS	2 J
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.469
TOTAL METALS	COPPER	MG/L	1.3	NS	NS	2.40
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	1.32
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.0130
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-
E&E	2,4,6-TRINITROTOLUENE	UG/L	1.1	NS	NS	-
E&E	2-AMINO-4,6-DINITROTOLUENE	UG/L	6	NS	NS	-
E&E	4-AMINO-2,6-DINITROTOLUENE	UG/L	6	NS	NS	-
E&E	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE (RDX)	UG/L	0.31	NS	NS	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SVOCS = Semi-volatile organic constituents
E&E = Explosive and energetic constituents
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-14

Surface Water - Exceedance Summary - Eastern Drainage
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			EASTERN AREA II DYNAMITE SW-R-G12-04 SW-R-G12-04(0.0-0.5) 6/12/2006	EASTERN AREA III MAINTENANCE SW-R-G11-01 SW-R-G11-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-01 SW-R-G12-01(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-G12-02 SW-R-G12-02(0.0-0.5) 5/9/2006	EASTERN AREA III MAINTENANCE SW-R-H11-01 SW-R-H11-01(0.0-0.5) 5/9/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.106	0.162	0.185	0.0277	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	1.01	3.21	2.97	0.253	0.0334
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	0.000079 J	0.0036	0.0040	-	-

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SWQS = Surface water quality standard
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health SWQS

Table E-15

Surface Water - Exccedance Summary - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-J5-01 SW-R-J5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-J5-02 SW-R-J5-02(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-07 SW-R-K5-07(0.0-0.5) 3/30/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-09 SW-R-K5-09(0.0-0.5) 4/5/2006	DUCK POND AREA I DEVELOPMENT SW-R-K5-10 SW-R-K5-10(0.0-0.5) 4/5/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	0.0726 J	-	0.0541 J	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.260	1.24	0.584	1.42	1.26
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	0.00023	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	0.149	-	-	0.104	-
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	-	-	7.62	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS

Table E-15

Surface Water - Exccedance Summary - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I DEVELOPMENT SW-R-K5-11 SW-R-K5-11(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-L7-02 SW-R-L7-02(0.0-0.5) 7/6/2006	DUCK POND AREA I STORAGE SW-R-L7-04 SW-R-L7-04(0.0-0.75) 7/6/2006	DUCK POND AREA I STORAGE SW-R-N5-01 SW-R-N5-01(0.0-0.5) 4/5/2006	DUCK POND AREA I STORAGE SW-R-N5-02 SW-R-N5-02(0.0-0.5) 4/5/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	0.176	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	3.00	0.0113 J	0.0125 J	0.0102 J	0.0220
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-	-
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	-	-	-	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	NA	NA	NA	NA

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQ

Table E-15

Surface Water - Exccedance Summary - Duck Pond and Tributaries
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date			DUCK POND AREA I STORAGE SW-R-N5-03 SW-R-N5-03(0.0-0.5) 4/7/2006	DUCK POND AREA I STORAGE SW-R-N5-04 SW-R-N5-04(0.0-0.5) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-05 SW-R-N5-05(0.25-0.75) 4/12/2006	DUCK POND AREA I STORAGE SW-R-N5-06 SW-R-N5-06(0.0-0.5) 5/18/2006
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result	Result	Result	Result
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	-	-	-	-
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	0.0356	-	-	0.0256
TOTAL METALS	MERCURY	MG/L	0.00005	NS	NS	-	-	-	-
TOTAL METALS	THALLIUM	MG/L	0.00024	NS	NS	-	-	-	-
TOTAL METALS	ZINC	MG/L	7.4	NS	NS	-	-	-	-
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	NA	0.0085 J	0.0107 J	NA

Notes:

All sample depths on this table (0.0-0.5) refer to feet below the water surface

SWQS = Surface water quality standard

NA = Not analyzed

NS = No standard

J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value

Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQ

Table E-16

Surface Water - Exceedance Summary - Miscellaneous Ponds
Volume E - Remedial Investigation Report
Hercules Incorporated
Kenvil Works Facility, New Jersey

			Drainage Area Remedial Area Former Operational Area Location ID Field Sample ID Sample Date	MISCELLANEOUS POND		MISCELLANEOUS POND		MISCELLANEOUS POND		MISCELLANEOUS POND		MISCELLANEOUS POND	
				AREA I		AREA I		AREA I		AREA I		AREA I	
				DEVELOPMENT		DEVELOPMENT		DEVELOPMENT		DEVELOPMENT		STORAGE	
				SW-R-K5-01		SW-R-K5-02		SW-R-K5-03		SW-R-K5-05		SW-R-N7-01	
				SW-R-K5-01(0.0-0.5)		SW-R-K5-02(0.25-0.75)		SW-R-K5-03(0.0-0.5)		SW-R-K5-05(0.0-0.5)		SW-R-N7-01(0.0-0.5)	
			4/12/2006		4/12/2006		4/12/2006		4/12/2006		4/5/2006		
Analytical Group	Constituent	Units	Human Health SWQS	Aquatic Life Chronic SWQS	Aquatic Life Acute SWQS	Result		Result		Result		Result	
TOTAL METALS	ARSENIC	MG/L	0.000017	NS	NS	NA		NA		NA		0.0458	
TOTAL METALS	LEAD	MG/L	0.005	NS	NS	NA		NA		NA		0.0271	
DISSOLVED METALS	COPPER	MG/L	NS	0.0058	0.0084	-	0.0140	0.0085 J		0.0724		NA	
DISSOLVED METALS	LEAD	MG/L	NS	0.0054	0.038	0.0101 J	0.0199 J	0.0111 J		0.0400		NA	
DISSOLVED METALS	SELENIUM	MG/L	NS	0.005	0.02	0.0103 J	-	-		-		NA	
DISSOLVED METALS	ZINC	MG/L	NS	0.0781	0.0781	0.504	0.153	0.349		0.150		NA	

Notes:
All sample depths on this table (0.0-0.5) refer to feet below the water surface
SWQS = Surface water quality standard
NA = Not analyzed
NS = No standard
J = Indicates that the constituent was analyzed for and was detected below the reporting limit, and/or number indicates an estimated value
Bold = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Human Health or Aquatic Life Chronic SWQS
Bold/shading = Indicates that the constituent was detected by laboratory analysis at concentrations greater than the Aquatic Life Acute SWQS

APPENDICES

APPENDIX A

APPENDIX B

This text is a summary of items that required qualification as a result of data validation of the Kenvil data. The following acronyms were used in the text:

CCAL - continuing calibration
LCS - laboratory control sample
%D - percent difference
'U' - undetected qualification
'J' - estimated concentration
'R' - rejected qualification
MS - matrix spike
MSD - matrix spike duplicate
'UJ' - undetected at an estimated concentration
SDG - sample delivery group
PCB - polychlorinated biphenyl
TPH - total petroleum hydrocarbon
%R - percent recovery
%RSD – percent relative standard deviation
%RPD – relative percent difference

Samples were not qualified if the temperature was below the recommended temperature of $4 \pm 2^\circ \text{C}$, but were qualified for elevated cooler temperature for the Explosives and Energetics fraction, where indicated in the data summaries below.

The following methods were used by the laboratory:

- Metals using method 6010B,
- Mercury using method 7470A,
- Explosives and Energetics using method 8330,
- Semivolatile organics using method 8270C,
- Volatile organics using method 8260B

The laboratory analyzed Explosives/Energetics using EPA method 8330. There were a few differences between quality control requirements in method 8330 and those defined in the Region II SOP. The differences are described below, and did not warrant qualification.

- Initial Calibration - RII lists analyzing the standards in triplicate. The current version of SW846 Method 8330 does not require the triplicate analysis of the initial calibration, and the laboratory does not run the standards in triplicate. The laboratory noted an older draft version of SW846 Method 8330 contained the triplicate requirement, which was omitted when promulgated into update III.
- Special QC - this is a solvent blank that is assumed for the mobil phase only, which the laboratory doesn't typically run. The laboratory relies on the method blank as a check for instrument cleanliness as well as extraction cleanliness. Should there be a problem with a blank, the laboratory noted they would check

their reagents, including mobile phase, to make sure the instrument is clean. This typically is not an issue according to the laboratory.

- Lab Duplicate – the laboratory analyzes either an MS/MSD pair or an LCS/LCSD pair for precision measurement, instead of specific sample duplicates.
- Primary versus confirmation criteria - the laboratory notes the data between the two runs in not handled like their other dual column analyses. The second column, which is used for confirmation is not as good as the primary in that there are 5 coeluting pairs of compounds. The laboratory always reports the primary data with the confirmation data for support.

SDG KVL65

Sample Receipt and Custody Documentation – The laboratory recorded cooler temperatures from 0.7 to 7.3° C. Explosives samples associated with the coolers exceeding 4.9° C were qualified as estimated.

Explosives/ Nitroglycerin –Sample volume was insufficient to run a MS/MSD for this batch. The laboratory noted degradation in the LCS/LCSD spiking solution for 2,4,6-trinitrotoluene and consequently read this compound from a dilution of another known standard. The 2,4,6- trinitrotoluene results for all samples were qualified as estimated based on the uncertainty in actual spike concentrations. The RDX result for SW-R-K5-04(0.0-0.5) was qualified as estimated due to the %D (66.29%) exceeding the 25% limit.

The ICAL verification standard, 1E12100.12, was outside the 15% criterion for 2,4,6-trinitrotoluene (19.7%). The laboratory read this compound from the confirmation run, 1C12100. No action was taken. Target compounds eluted out of retention time windows for several CCAL standards. The %D for each compound was within limits. No action was taken for missing retention windows alone. On some confirmation run ICAL standards, %RSD exceeded the 20% criterion for some target compounds. The laboratory reads from the primary run, therefore no action was taken. Individual CCAL target analytes exceeded the 15% criterion for %D. No action was taken if the average %D value of the standard was within the 15% limit.

Metals – Zinc was present in the preparation blank. As the zinc result for SW-R-K5-06(0.0-0.5) was less than 5x the blank value, the result was qualified as estimated.

Other Comments – Equipment blank sample EQB-04052006-SW was collected and analyzed with this dataset. All results were non-detected.

SDG KVL71

Sample Receipt and Custody Documentation: No problems noted.

Explosives/ Nitroglycerin – Sample SW-R-M7-03(0.5-1.0) was qualified as estimated for 2,4,6-trinitrotoluene due to uncertainty in the LCS spike recovery. All samples were qualified as estimated for 2,4,6-trinitrotoluene due to uncertainty in the MS/MSD spike recovery.

Semivolatiles – No qualification of data.

Metals – No qualification of data.

Field duplicates – Field duplicate pair SW-R-M7-02(0.25-0.75)/DUP was collected and all results compared with the exception of zinc, however, no action was taken as the laboratory duplicate was acceptable for this dataset.

Other Comments – Equipment blanks EQB-04062006 –SW and EQB-04072006 –SW were collected and were acceptable.

SDG KVL76

Sample Receipt and Custody Documentation: No problems were noted.

Explosives/ Nitroglycerin – Sample SW-R-N5-04(0.0-0.5) was qualified as estimated for HMX due to low matrix spike/matrix spike duplicate recovery and for 2,4,6-trinitrotoluene due to the uncertainty for the spike concentrations since the laboratory data was showing degradation in their spiking solutions. All samples were qualified as estimated for 2,4,6-trinitrotoluene due to uncertainty for the LCS spike solution concentrations.

Metals – No qualification of data

Field duplicates – Field duplicate pair SW-R-N5-05(0.25-0.75)/DUP was collected and all results compared.

Other Comments – Equipment blank sample EQB-04122006 was collected, and all compounds were ND.

SDG KVL77

Sample Receipt and Custody Documentation: No problems were noted.

Metals – No qualification of data

Field duplicates – Field duplicate pairs SW-R-N5-05(0.25-0.75)/ SW-R-N5-05(0.25-0.75)DUP and SW-R-N5-04(0.0-0.5)/ SW-R-N5-04(0.0-0.5)DUP were collected and all results compared.

Other Comments – Equipment blank sample EQB-04122006 was collected, and all compounds were non-detected.

SDG KVL95

Sample Receipt and Custody Documentation: No problems were noted.

Semivolatiles – The laboratory noted elevated reporting limits due to insufficient sample amount. No action was taken. Sample SW-R-F11-01(0.0-0.5) was qualified as estimated for all compounds due to low surrogate recovery.

Explosives/ Nitroglycerin – All compounds for all samples were qualified as estimated due to the cooler temperatures exceeding 4 °C (5 and 5.1 °C). No qualification to the data was made.

Metals – Thallium was qualified as estimated in sample SW-R-D14-01(0.0-0.5) due to the continuing calibration blank contamination. Copper was qualified as estimated in the following samples due to associated equipment blank contamination: SW-R-I11-01(0.0-0.5), SW-R-I11-01(0.0-0.5)DUP, SW-R-I11-02(0.25-0.75), SW-R-F11-03(0.0-0.5), SW-R-D14-01(0.0-0.5), SW-R-D14-02(0.0-0.5) and SW-R-D13-04(0.0-0.5).

General Chemistry – Nitrocellulose was qualified as estimated for all samples due to the duplicate precision being exceeded. Parent sample SB-R-F11-03(4.0-4.5) was qualified as estimated for nitrocellulose due to low matrix spike recovery.

Field duplicates – Field duplicate pair SB-R-I11-01(0.0-0.5)/ SB-R-I11-01(0.0-0.5)Dup was collected and reported in this SDG with comparable results.

Other Comments – Equipment blank sample EQB-05092006 was collected with this sample set and contained copper at 0.0019 mg/L which was used to qualify associated field samples as indicated above.

SDG KVM13

Sample Receipt and Custody Documentation - No problems were noted.

Semivolatiles – No qualification was made.

Explosives/ Nitroglycerin – No qualification was made.

General Chemistry – No qualification was made.

Metals – No qualification was made.

Field duplicates – Field duplicate pair SW-R-F14-02 (0.5-1.0)/ SW-R-F14-02 (0.5-1.0)Dup was collected and analyzed in this data set. All results compared.

Other Comments – Equipment blanks EQB-05182006-SW and EQB-05192006-SW were collected, and all results were ND.

SDG KVM14

Sample Receipt and Custody Documentation: No problems were noted.

Metals – No qualification of data.

Field duplicates – Field duplicate pairs SW-R-F14-01(0-0.5)/DUP, SW-R-F14-02(0-0.5)/DUP and SW-R-D13-05(0.5-1.0)/DUP were in this data set and all results compared.

Other Comments – None.

SDG KVM19

Sample Receipt and Custody Documentation – No issues were noted.

Semivolatiles – No qualification was made.

Explosives/ Nitroglycerin –. All compounds for all samples were qualified as estimated due to cooler temperature exceedance. The results for 2,4,6-trinitrotolueneT for all samples were qualified as estimated due to uncertainty about the compound's spike concentration in the LCS, MS, and MSD. The results for 4-Amino-2,6-dinitrotoluene and 2-Amino-4,6- dinitrotoluene were qualified as estimated due to the %D between the primary and confirmation results exceeding the 25% criterion.

Metals – Lead in sample SW-R-C12-01(0.25-0.75) was qualified as estimated due to the %RPD for the MS/MSD exceeding QC limits. The laboratory duplicate was in control for lead, therefore only the parent sample was qualified.

Field duplicates – Field duplicate pairs SW-R-D13-05(0.5-1.0)/SW-R-D13-05(0.5-1.0)_DUP and SW-R-C12-01(0.25-0.75)/SW-R-C12-01(0.25-0.75)_DUP were collected and analyzed in this data set. All results compared.

Other Comments – None.

SDG KVM32

Sample Receipt and Custody Documentation - The laboratory noted reduced volumes available for analysis. No action was taken. Also noted was a missing container for all SB MS/MSD samples. No action was taken.

Volatiles – No qualification was made.

Semivolatiles – No qualification was made.

Explosives/ Nitroglycerin – Samples SW-R-E16-01(0.25 – 0.75), SW-R-E15-01(0.0 – 0.5), SW-R-E15-02(0.0 – 0.5) and SW-R-E15-03(0.0 – 0.5) were qualified as estimated for 2,4,6-trinitrotoluene due to low LCS/LCSD recovery.

General Chemistry – No qualification was made.

Metals – All detected silver values were qualified as estimated for silver due to associated blank contamination. Mercury was qualified as estimated in samples SW-R-D12-03(0.0 – 0.5), SW-R-D15-01(0.0 – 0.5) and SW-R-D16-02(0.0 – 0.5) due to associated blank contamination.

Field duplicates – Field duplicate pair SW-R-C15-02 (0.0-0.5)/ SW-R-C15-02 (0.0-0.5) Dup was collected and analyzed in this data set. All results compared.

Other Comments – Equipment blanks EQB-06072006-SW and EQB-06082006-SW were collected, and all results were ND.

SDG KVM36

Sample Receipt and Custody Documentation - Nothing noted.

Semivolatiles – No qualification was made.

Explosives/ Nitroglycerin – No qualification was made. The laboratory noted that due to insufficient sample amount, an MS/MSD could not be analyzed, therefore an LCS/LCSD was analyzed to demonstrate precision and accuracy, with acceptable results.

General Chemistry – No qualification was made.

Metals – No qualification was made.

Field duplicates – No field duplicates were collected for this dataset.

Other Comments – Equipment blank EQB-06122006 was analyzed, all ND.

SDG KVM48

Sample Receipt and Custody Documentation - The laboratory noted that SW-R-M6-14(0-4) was identified as SW-R-M6-16(0-4) and the collection times matched M6-14 bottles as did the depth. The laboratory was contacted and the identification was corrected. No validation was required.

Semivolatiles – No qualification was made.

Explosives/ Nitroglycerin – All samples were qualified as estimated for 2,4,6-trinitrotoluene due to low LCS recovery. The samples were redigested and reanalyzed outside of the holding time, therefore the original data were reported.

Metals – Copper was qualified as estimated in samples SW-R-L7-02(0.0-0.5) and SW-R-L7-04 (0.0-0.5) due to associated blank contamination.

Field duplicates – Field duplicate pair SW-R-M6-08 (0.0-3.5)/SW-R-M6-08 (0.0-3.5)Dup were collected and analyzed in this data set. All results compared

Other Comments – Equipment blank samples EQB-06302006-SW and EQB-07062006-SW were collected and all results were ND.

SDG KVM51

Sample Receipt and Custody Documentation - No problems were noted.

Volatiles – No qualification was made.

Explosives/ Nitroglycerin – All samples were qualified as estimated for all compounds due to the slightly elevated cooler temperature of 5.8 °C, per the Region II checklist. The percent difference between the primary and confirmation column was greater than 25%, resulting in estimated qualification of the indicated compound(s) for the following samples: 4-amino-2,6-dinitrotoluene for SW-R-A15-07(0.0-0.5); and 4-amino-2,6-dinitrotoluene/2-amino-4,6-dinitrotoluene for samples SW-R-B14-01(0.0-0.5) and SW-R-B14-02(0.0-0.5).

Metals – Copper was qualified as estimated in samples SW-R-A15-05(0.0-0.5), SW-R-A15-08(0.0-0.5) and SW-R-B15-03(0.0-0.5) due to associated blank contamination.

Field duplicates – Field duplicate pair SW-R-A15-01 (0.0-0.5)/SW-R-A15-01(0.0-0.5)Dup were collected and analyzed in this data set. All results compared.

Other Comments – Equipment blank sample EQB-07112006-SW was collected and all results were ND.

SDG KVM54

Sample Receipt and Custody Documentation – No issues noted.

Volatiles – No qualification was made.

Explosives/ Nitroglycerin – All compounds were qualified as estimated for SW-R-E14-01(1.25-1.75) due to low surrogate recovery. The lab stated that the sample was re-extracted and the surrogate recovery was within QC limits. Since the re-extracted sample was run out of holding times, the original results were reported. Results for 2,4,6-TNT

were qualified as estimated for the following samples due to CCAL %D exceeding 15%: SW-R-E15-07(1.25-1.75), SW-R-E15-08(1.25-1.75), SW-R-E15-09(1.25-1.75), SW-R-E14-01(1.25-1.75), SW-R-E14-02(1.25-1.75), and SW-R-E14-03(1.25-1.75). The following samples/compounds were qualified as estimated due to the %D between the primary and confirmation columns exceeding 25%: SW-R-E15-06(0.75-1.25) for RDX and 2-Amino-4,6-dinitrotoluene; SW-R-E15-06(0.75-1.25)_DUP for 2-Amino-4,6-dinitrotoluene; SW-R-E15-07(1.25-1.75) for 2-Amino-4,6-dinitrotoluene; SW-R-E15-08(1.25-1.75) for 2-Amino-4,6-dinitrotoluene; SW-R-E15-09(1.25-1.75) for 2-Amino-4,6-dinitrotoluene; SW-R-E14-03(1.25-1.75) for 2-Amino-4,6-DINITROTOLUENE; and SW-R-D14-06(0.0-0.5) for RDX. Sample SW-R-E15-06(0.75-1.25)_DUP had a 2,4,6-trinitrotoluene confirmation value of 1.47, rather than 1.27 as noted on Form 10; this error did not affect qualification. Sample SW-R-D14-07(0.0-0.5) had an RDX confirmation value of 1.1, rather than 0.35 as noted on Form 10. The value reported in the %D column for RDX should be 10.73% rather than 93.94%; thus, the compound was not qualified for %D exceedance between the primary and confirmation columns.

Metals – Copper was qualified as estimated in SW-R-E15-07(1.25-1.75), SW-R-E15-08(1.25-1.75), SW-R-E14-01(1.25-1.75) and SW-R-D14-04(0.0-0.5) due to CCAL blank contamination.

Field duplicates – Field duplicate pair SW-R-E15-06(0.75-1.25)/SW-R-E15-06(0.75-1.25)_DUP were collected and analyzed in this data set. All results compared.

Other Comments – No trip blanks were included in this dataset.

SDG KVM94

Sample Receipt and Custody Documentation - No problems were noted.

Metals – No qualification was made.

General Chemistry – No qualification was made.

Field duplicates – No field duplicates were collected in this data set.

Other Comments – None.

APPENDIX C



RECEIVED

NOV 9 2001

SH & E ENVIRONMENTAL

DONALD T. DiFRANCESCO
Acting Governor

State of New Jersey
Department of Environmental Protection

Land Use Regulation Program
P.O. Box 439, Trenton, New Jersey 08625
FAX # (609) 777-3656
Web Site: www.state.nj.us/dep/landuse

Robert C. Shinn, Jr.
Commissioner

Mr. Robert Raimo
Environmental Evaluation Group
1184 Fisher Boulevard, 2nd Floor
Toms River, NJ 08754

2.0 #33

OCT 30 2001

RE: Letter of Interpretation
File No.: 1426-00-0002.1

Applicant: Hercules Incorporated
Block 1.1, Lots 4, 16, 17; Block 9.1, Lots 24, 24.1; Block 11, Lot 13; Block 12,
Lot 5; Block 13, Lot 2.1; Block 16, Lot 9; in Roxbury Township
Block 70.01, Lot 1 in Mt. Arlington Borough
Morris County, New Jersey

Dear Mr. Raimo:

This letter is in response to your request for a Letter of Interpretation to establish the boundary of the freshwater wetlands and State open waters on the referenced property.

In accordance with agreements between the State of New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers Philadelphia and New York Districts, and the U.S. Environmental Protection Agency, the NJDEP, Land Use Regulation Program is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retains the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted, and upon site inspections conducted on March 19 and 20 and April 5 and 6 2001, the Land Use Regulation Program has determined that freshwater wetlands are present on the referenced property. The extent of the wetlands are shown on the attached plans entitled "Hercules Incorporated, Kenvil Works Facility, Roxbury Township, Morris County, New Jersey, Freshwater Wetlands Delineation Report, Wetland Boundary Survey" sheets 1 through 12, prepared by Montgomery Watson dated September 13, 2001 with no revision date.

Any activities regulated under the Freshwater Wetlands Protection Act proposed within the wetlands, open water or transition areas, will require a permit from this office unless exempted under the wetlands rules, N.J.A.C. 7:7A.

Pursuant to the Freshwater Wetlands Protection Act Rules, N.J.A.C. 7:7A, you may rely upon this boundary determination for a period of five years from the date of this letter.

The freshwater wetlands and water boundary lines, as determined in this letter, must be shown on any future site development plans. The line should be labeled with the above LURP file number and with the following note:

"Freshwater Wetlands/Waters Boundary Line as verified by the NJDEP, File #1426-00-0002.1"

In addition, the Department has determined that the wetlands on the subject property are of intermediate resource value and the standard transition area or buffer required adjacent to these wetlands is 50 feet. The wetlands have also been identified as being priority wetlands by the U.S. Environmental Protection Agency. This classification affects the requirements for an Individual Permit (see N.J.A.C. 7:7A-3), the types of Statewide General Permits available for the wetlands portion of this property (see N.J.A.C. 7:7A-9) and the modification available through a transition area waiver (see N.J.A.C. 7:7A-7). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and implementing rules for additional information.

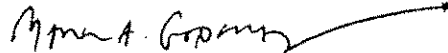
It should be noted that this determination of wetlands classification is based on the best information presently available to the Department. This site has the potential to contain vernal habitats and the Program has reserved the right to evaluate this possibility in the spring of 2002. The possibility of trout associated waters also exists on the property and a classification change to watercourses and associated wetlands may occur in the future. The current wetland resource classification is subject to change if current information is no longer accurate, or as additional information is made available to the Department, including, but not limited to, information supplied by the applicant.

This determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required for activities on the referenced property. This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have been conducted on this site.

In accordance with N.J.A.C. 7:7A-12.7, any person who is aggrieved by this decision may request a hearing within 30 days of the decision date by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist.

Please contact David Bean of our staff at (609) 633-9277 should you have any questions regarding this letter. Be sure to indicate the Program's file number in all communication.

Sincerely,



Mark A. Godfrey, Supervisor
Morris and Bergen Counties Region
Bureau of Inland Regulation

Attachment: Administrative Hearing Request Checklist

- c: Township of Roxbury Municipal Clerk
- Township of Roxbury Municipal Construction Official
- Borough of Mount Arlington Municipal Clerk
- Borough of Mount Arlington Municipal Construction Official
- Hercules Incorporated, Applicant



State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection
Land Use Regulation Program
P O Box 439, Trenton, NJ 08625-0439
Fax: (609) 777-3656
www.state.nj.us/dep/landuse

Bradley M. Campbell
Acting Commissioner

Mr. Robert Raimo
Environmental Evaluation Group
1184 Fisher Boulevard, 2nd Floor
Toms River, NJ 08754

FEB 27 2002

RE: Letter of Interpretation
Resource Classification Change
File No.: 1426-00-0002.1

Applicant: Hercules Incorporated
Block 1.1, Lots 4, 16, 17; Block 9.1, Lots 24, 24.1; Block 11, Lot 13; Block 12, Lot 5; Block 13, Lot 2.1; Block 16, Lot 9; in Roxbury Township
Block 70.01, Lot 1 in Mt. Arlington Borough
Morris County, New Jersey

Dear Mr. Raimo:

In a letter dated October 30, 2001, the Department indicated that the wetlands on the referenced property were of intermediate resource value and that they would require an upland transition area or buffer of 50 feet. This letter also detailed that these classifications were subject to change if necessary.

It has been determined that the referenced site wetlands drain to the Lamington River which becomes a trout production watercourse downstream of the site. Therefore, wetlands found on the above property are classified as exceptional resource value wetlands and will require the corresponding 150 foot transition area.

In accordance with agreements between the State of New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers Philadelphia and New York Districts, and the U.S. Environmental Protection Agency, the NJDEP, Land Use Regulation Program is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retains the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

It should be noted that this determination of wetlands classification is based on the best information presently available to the Department. The current wetland resource classification is subject to change if current information is no longer accurate, or as additional information is made available to the Department, including, but not limited to, information supplied by the applicant.

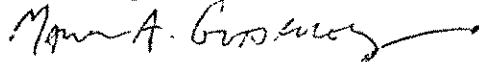
This determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required for activities on the referenced property. This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have been conducted on this site.

In accordance with N.J.A.C. 7:7A-12.7, any person who is aggrieved by this decision may request a hearing within 30 days of the decision date by

writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist.

Please contact David Bean of our staff at (609) 633-9277 should you have any questions regarding this letter. Be sure to indicate the Program's file number in all communication.

Sincerely,



Mark A. Godfrey, Supervisor
Morris and Bergen Counties Region
Bureau of Inland Regulation

Attachment: Administrative Hearing Request Checklist

c: Township of Roxbury Municipal Clerk
Township of Roxbury Municipal Construction Official
Borough of Mount Arlington Municipal Clerk
Borough of Mount Arlington Municipal Construction Official
Hercules Incorporated, Applicant

JDB copy



Hercules Incorporated
Hercules Plaza
1313 North Market Street
Wilmington, DE 19894-0001
(302) 594-5000
www.herc.com

VIA FAX AND CERTIFIED MAIL

March 22, 2002

Mr. Mark A. Godfrey, Supervisor
New Jersey Department of Environmental Protection
Land Use Regulation Program
P.O. Box 439
Trenton, NJ 08625-0439

**Re: *Your letter Dated February 27, 2002 Regarding:
Letter of Interpretation
Resource Classification Change
File No. 1426-00-0002.1
Applicant: Hercules Incorporated – Kenvil Works Facility***

Dear Mr. Godfrey,

Hercules Incorporated (Hercules) is submitting this letter to the New Jersey Department of Environmental Protection (NJDEP) Land Use Regulation Program (LURP) in response to the NJDEP-LURP's Letter of Interpretation Resource Classification Change dated February 27, 2002 for the above referenced facility.

Based on a telephone conversation between Edward Meeks, P.G. Montgomery Watson Harza (MWH) and David Bean (NJDEP-LURP) on March 21, 2002, it is Hercules' understand that the NJDEP-LURP letter dated February 27, 2002 does not accurately set forth the requirements which the NJDEP would like to impose upon Hercules at the Kenvil property. Rather, based on that telephone conference, it is Hercules' understanding that the following requirements were intended by the NJDEP:

- Wetland areas representing surface water tributaries to the Lamington River are classified as an exceptional resource value as they ultimately become a trout production watercourse and require a 150-foot transition zone.
- Isolated wetland areas that do not represent surface water tributaries to the Lamington River are classified as upland transition areas and require a 50-foot transition zone.

Based on the above, Hercules will not file an appeal or other response to the referenced February 27, 2002 letter, as that letter is inaccurate and should be of no force or effect. We request that the NJDEP issue a new Letter of Interpretation setting forth the above. Upon receipt of a new Letter of Interpretation, Hercules will review the letter. Of course, we reserve any legal rights we may have with respect to such new letter until we receive and review such letter.

NJDEP/Land Use Program
Page 2
March 22, 2002

Hercules appreciates the opportunity to clarify the wetland transition areas required for the Kenvil facility. If you disagree with any of the statements set forth above, or if they are in any way inaccurate, please respond in writing immediately to:

James D. Bevis
Hercules Kenvil Site Manager
Hercules Plaza
1313 North Market Street
Wilmington, DE 19894-0001
(Fax No. 302-594-7255)

Please direct all future correspondence regarding wetlands issues at this site to myself at the above address.

Additionally, if you have any questions regarding our response, please call me at (302) 594-5623 or Ed Meeks at (610) 407-7929. Finally, notwithstanding the above, should we be required to file an appeal to preserve our rights with respect to the February 27, 2002 letter, by copy to the NJDEP, Office of Legal Affairs, please consider this a request for a hearing. Upon notice that this letter is being accepted as such a request, we will submit the required Administrative Hearing Request Checklist. Of course, based on the above, it is our hope that no hearing will be needed.

Thank you for your consideration.

Sincerely,



James D. Bevis
Kenvil, NJ Site Manager
Hercules Incorporated

cc: Edward Meeks, P.G. - MWH
Mary Quinn - Hercules/Kenvil
Michael F. Rettig, Esq.
David Bean, NJDEP

NJDEP, Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
P. O. Box 402
Trenton, New Jersey 08625-0402



State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection
Land Use Regulation Program
P.O. Box 439, Trenton, NJ 08625-0439
Fax # (609) 777-3656
www.state.nj.us/dep/landuse

Bradley M. Campbell
Commissioner

James D. Bevis
Hercules Kenvil Site Manager
Hercules Plaza
1313 North Market Street
Wilmington, DE 19894-0001

NOV 14 2002

RE: Letter of Interpretation
Resource Classification Change
File No.: 1426-00-0002.1

Applicant: Hercules Incorporated
Block 1.1, Lots 4, 16, 17; Block 9.1, Lots 24, 24.1; Block 11, Lot 13; Block 12, Lot 5; Block 13, Lot 2.1; Block 16, Lot 9; in Roxbury Township
Block 70.01, Lot 1 in Mt. Arlington Borough
Morris County, New Jersey

Dear Mr. Bevis:

This letter is in response to your letter dated March 22, 2002 which discussed the resource classification change. The Department is taking this opportunity to further clarify its February 27, 2002 resource classification change letter. As you are aware, in a letter dated October 30, 2001, the Department indicated that the wetlands on the referenced property were of intermediate resource value and that they would require an upland transition area or buffer of 50 feet. This letter also detailed that these classifications were subject to change if necessary.

It has been determined that the non-isolated wetlands found on the above-referenced site drain to the Lamington River which becomes a trout production watercourse downstream of the site. Therefore, non-isolated/tributary wetlands found on the above property are classified as exceptional resource value wetlands and will require the corresponding 150 foot transition area. Isolated wetlands are still classified as intermediate resource value wetlands and require a 50 foot transition area.

It should also be noted that due to the size of the site and the information provided within the LOI application, the "isolation" of specific wetlands was not confirmed within the original letter of interpretation. The accuracy of all on-site wetlands and transition area boundaries has been confirmed, the potential presence of pipes or other features which might connect such wetlands to adjacent tributary wetlands/waters was not fully explored. Further refinement of the tributary status of wetland areas should be conducted when necessary as it relates to future regulated/permitted activities.

Lastly, the Department has conducted an initial survey of the site on May 16, 2002 to identify and certify vernal habitats, as defined at N.J.A.C. 7:7A-1.4. Wetlands areas "AI" and "AM" have been confirmed to be vernal habitats and have been certified. Wetlands area "AL" has been confirmed not to meet the definition of a vernal habitat. Many other isolated wetlands areas on-site potentially meet the definition of a vernal habitat, and will be surveyed in

the future to determine eligibility for certification. The Department will continue to update you regarding vernal habitat survey efforts and results.

In accordance with agreements between the State of New Jersey Department of Environmental Protection, the U.S. Army Corps of Engineers Philadelphia and New York Districts, and the U.S. Environmental Protection Agency, the NJDEP, Land Use Regulation Program is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retains the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

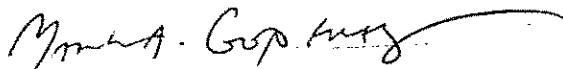
It should be noted that the determination of wetlands resource value classification as well as the certification of vernal habitats is based on the best information presently available to the Department. The current wetland resource classification is subject to change if current information is no longer accurate, or as additional information is made available to the Department, including, but not limited to, information supplied by the applicant.

This determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required for activities on the referenced property. This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have been conducted on this site.

In accordance with N.J.A.C. 7:7A-12.7, any person who is aggrieved by this decision may request a hearing within 30 days of the decision date by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist.

Please contact David Bean of our staff at (609) 633-9277 should you have any questions regarding this letter. Be sure to indicate the Program's file number in all communication.

Sincerely,



Mark A. Godfrey, Supervisor
Morris and Bergen Counties Region
Bureau of Inland Regulation

Attachment: Administrative Hearing Request Checklist

c: Township of Roxbury Municipal Clerk
Township of Roxbury Municipal Construction Official
Borough of Mount Arlington Municipal Clerk
Borough of Mount Arlington Municipal Construction Official
Office of State Planning