



Edward D. Meeks
Remediation Project Manager
Environmental, Health & Safety

Hercules Incorporated
Hercules Research Center
500 Hercules Road
Wilmington, DE 19808-1599
Writer's Direct Dial: 302-995-3433

VIA FEDERAL EXPRESS

January 10, 2019

Bureau of Case Assignment & Initial Notice
Site Remediation Program
New Jersey Department of Environmental Protection
401-05H
PO Box 420
Trenton, New Jersey 08625-0420

Subject: **Potable Well Sampling Results Notification**
975 Route 46
Kenvil, Roxbury Township, Morris County
Block 5302, Lot 1
Sampling Date: November 30, 2018

Regarding: **Hercules LLC – Former Kenvil Works Facility**
100 Howard Boulevard/51 Hercules Road
Kenvil, Roxbury Township, Morris County
NJDEP Program Interest No.: 000741

Dear Sir or Madam:

On behalf of Hercules LLC (Hercules) please find attached documentation related to potable well sample analytical results reporting for the above-referenced property. The information provided herein fulfills reporting requirements for potable well sample results less than Class II groundwater quality standards established at New Jersey Administrative Code 7:26E-1.14(c).

Specifically, this information package includes:

- Exhibit 1 – Full Laboratory Data Deliverable Form
- Exhibit 2 – Electronic data deliverable email submission confirmation
- Exhibit 3 – Notification package dated December 12, 2018 sent to C. Canticas and N. Bardis (property owner) and Roxbury Township Health Department.

Based on these results, no further investigation on the subject property is needed.

If you have questions related to the potable well sampling please contact me at 302.995.3433
or edmeeks@ashland.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ed D. Meeks', written in a cursive style.

Edward D. Meeks
Remediation Project Manager
Enclosure

cc: Mark Foley, Licensed Site Remediation Professional, WSP Inc.
Scott Larew, Project Manager, Kennedy/Jenks Consultants

Exhibit 1

Full Laboratory Data Deliverable Form



New Jersey Department of Environmental Protection
Site Remediation Program

FULL LABORATORY DATA DELIVERABLES FORM

☒ LSRP

☐ Subsurface Evaluator

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Former Kenvil Works Facility

List all AKAs: Alliant Techsystems Inc.

Street Address: 100 Howard Boulevard

Municipality: Roxbury Township (Township, Boro or City)

County: Morris Zip Code: 07847

Program Interest (PI) Number(s): 000741 Case Tracking Number(s): 849

SECTION B. NJDEP CASE MANAGER

Do you have an assigned Case Manager? ☐ Yes ☒ No

If "Yes," please list the Case Manager: _____

SECTION C. REMEDIAL PHASE

☐ Immediate Environmental Concern

☐ Preliminary Assessment Report

☐ Site Investigation Report

☒ Remedial Investigation/Remedial Action Work Plan

☐ Remedial Action Report

☐ Response Action Outcome

SECTION D. Matrix Type/Analysis and Number of Samples

☒ Potable Well Water# of samples: 2 Sampling Date: 11/30/2018
Analytical Method(s) USEPA SW846 Method 8095

☐ Indoor Air# of samples: _____ Sampling Date: _____
Analytical Method _____

☐ Polychlorinated dibenzo-p-dioxins/polychlorinated dibenzofurans # of samples: _____ Sampling Date: _____
Analytical Method _____

☐ Hexavalent chromium soil sample# of samples: _____ Sampling Date: _____
Analytical Method _____

☐ Other# of samples: _____ Sampling Date: _____
Analytical Method _____

☐ Other# of samples: _____ Sampling Date: _____
Analytical Method _____

☐ Other# of samples: _____ Sampling Date: _____
Analytical Method _____

SECTION E. GENERAL

1. Was a full laboratory data deliverables package provided? ☒ Yes ☐ No

2. Was a certified laboratory(s) used for the analyses? ☒ Yes ☐ No

Provide name of laboratory(s): Pace Analytical Services, LLC

3. Were data summaries provided for all samples? ☒ Yes ☐ No

4. Were electronic deliverables submitted? ☒ Yes ☐ No

5. For air sample data, were the TO-15 Conversion Tables (hit-lists) provided on disc in the appropriate Excel format pursuant to the VIG? ☐ Yes ☐ No

Section F. Data Quality Assurance/Quality Control

1. Were the appropriate sample preservation requirements met? ☒ Yes ☐ No
2. Were appropriate sample holding times (for both extraction/sample preparation and analysis) met? ☒ Yes ☐ No
- If "No," provide a brief explanation.

3. Were the samples diluted? ☐ Yes ☒ No
- Indicate the identity of the samples and why.

4. If applicable, did sample dilutions result in elevated reporting limits that exceed applicable standards?.. ☐ Yes ☐ No
- If "Yes," list the affected samples.

5. Were any applicable standards exceeded for any samples? ☒ Yes ☐ No
- If "Yes," include the number of samples and laboratory sample identification numbers.

Surrogate 2,2'-Dinitrobiphenyl exceeded the percent recovery limits in samples PW-975-113018 (A184813-01) and BD-113018 (A184813-02). Since the recovery was high and the sample results were non-detect, the data did not require qualification.

The MS/MSD percent recovery for sample PW-975-113018 (A184813-01) exceeded the limits for several compounds. Since the recovery was high and the sample results were non-detect, the data did not require qualification.

6. Were the laboratory reporting limits below the applicable remediation standards/criteria required for the site? ☒ Yes ☐ No
- If "No," provide a brief explanation of action taken.

7. Were qualifications noted in the non-conformance summary? ☒ Yes ☐ No
- Provide a brief explanation.

The case narrative noted that the surrogate percent recovery exceeded acceptance limits.

The case narrative noted that a CCV exceeded the acceptance limits. Samples PW-975-113018 (A184813-01) and BD-113018 (A184813-02) were qualified as non-detect estimated (UJ) for HMX due to the CCV exceedance.

8. Were qualified data used? ☒ Yes ☐ No
9. Were rejections noted in the non-conformance summary? ☐ Yes ☒ No
- Provide a brief explanation.

No sample data were rejected. All data is usable as reported or as qualified during data validation.

10. Were rejected data used? ☐ Yes ☒ No

If "Yes," please indicate reasons rejected data were used:

- ☐ For Hex Chrome, data were rejected because spike recovery was less than 50%.
- ☐ Data were rejected due to missing deliverables.
- ☐ Data were rejected but an applicable standard exceedance exists.
- ☐ Data were rejected in an early phase of a remediation; however, additional sampling and analysis are scheduled to be performed.
- ☐ Other reasons not noted directly above. Explain:

11. Were the quality control criteria associated with the compounds of concern at the site met? ☒ Yes ☐ No

12. Were the QC Summary Forms reviewed? ☒ Yes ☐ No

13. Surrogate recoveries acceptable ☐ Yes ☒ No

14. Internal Standards acceptable ☒ Yes ☐ No

15. MS/MSDs acceptable ☐ Yes ☒ No

16. Tune summaries acceptable ☐ Yes ☐ No

17. Calibration summaries acceptable ☐ Yes ☒ No

18. Serial dilutions acceptable ☐ Yes ☐ No

19. Inorganic duplicates acceptable ☐ Yes ☐ No

20. LCS recovery acceptable ☒ Yes ☐ No

21. Other QC acceptable? ☒ Yes ☐ No

Provide a brief explanation if applicable:

Although the MS/MSD was outside acceptance limit for several compounds, no data was qualified since the MS/MSD failed high and the associated sample was non-detect.

Although the surrogates were outside acceptance limit, no data was qualified since the surrogates failed high and the associated samples were non-detect.

Due to the HMX CCV exceeding acceptance limits, two samples were qualified as non-detect estimated (UJ).

SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Edward D. Meeks

Representative First Name: Edward Representative Last Name: Meeks

Title: Remediation Project Manager

Phone Number: (302) 995-3433 Ext: _____ Fax: (302) 995-3485

Mailing Address: Hercules Research Center, 500 Hercules Road, Building 8145

City/Town: Wilmington State: DE Zip Code: 19808

Email Address: edmeeks@ashland.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: 

Date: 11/8/19

Name/Title: Edward Meeks - Remediation Project Manager

SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENTLSRP ID Number: 575999First Name: Mark Last Name: FoleyPhone Number: (609) 512-3676 Ext: _____ Fax: _____Mailing Address: 2000 Lenox Drive, 3rd FloorCity/Town: Lawrenceville State: New Jersey Zip Code: 08648Email Address: mark.foley@wsp.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:☐ *directly oversaw and supervised all of the referenced remediation, and/or*☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature: _____

Date: _____

LSRP Name/Title: Mark Foley - Practice LeaderCompany Name: WSP USA

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Exhibit 2

Electronic Data Deliverable Email Submission Confirmation

Kiersten Robbins

From: DEP SRPEDD <SRPEDD@dep.nj.gov>
Sent: Thursday, January 10, 2019 2:49 PM
To: Kiersten Robbins
Subject: 000741, LSR120001, E94632, HB234567, (Directory: 2019PW) - Passed
Attachments: DTST.TXT; EDSA_Error_Log.html; erdtst-7-1-8.txt; erresult-7-1-8.txt; ersample-7-1-8.txt; HZRESULT.TXT; HZSAMPLE.TXT; rstp-7-1-8.txt; SampleLoc-7-1-8.KML

***** EXTERNAL EMAIL *** This email includes an ATTACHMENT from outside of KJ and could contain malicious links. Ensure email is from a trusted sender before opening the attachment. Never enter your login credentials if prompted. Contact IST if you have any questions.**

The EDD submission via email from (KierstenRobbins@kennedyjenks.com) on (1/8/2019 5:51:10 PM) with the subjectline "[EXTERNAL] 14794, 000741"

The following identifiers were in the DTST file:

- Directory: 2019PW
- DESC: Ashland Kenvil Potable Well Sampling
- SRPID: E94632
- Submit Date: 1/8/2019 0:00:00

This submission has been issued an SRP Catalog ID: HB234567

Submission status: **Passed.**

Please do **not** resubmit.

EDD data deliverable must be submitted only once.

- To fulfill Key Document requirements attach only a copy of this email as an appendix to the document.
- Do **not** resubmit any approved EDD deliverable as part of a portal submission.

Email ID: OEM_23646
Sub ID: SUB_68093

Exhibit 3

Notification Package Dated December 12, 2018



Edward D. Meeks
Environmental Remediation Project Manager
Environmental, Health & Safety

Hercules LLC
Hercules Research Center
500 Hercules Road
Wilmington, DE 19808-1599
Writer's Direct Dial: 302-995-3433

VIA CERTIFIED MAIL/RETURN RECEIPT

DECEMBER 12, 2018

C. Canticas and N. Bardis
29 Avalon Drive
Montville, New Jersey 07045

Subject: Potable Well Sampling Results at:
975 Route 46
Kenvil, Roxbury Township, Morris County
Sampling Date: November 30, 2018

Regarding: Hercules LLC – Former Kenvil Works Facility
100 Howard Boulevard/51 Hercules Road
Kenvil, Roxbury Township, Morris County
NJDEP Program Interest No.; 000741

To whom it may concern:

On behalf of Hercules, LLC (Hercules) please find attached a copy of the laboratory results generated from the potable water sample collected on November 30, 2018 from the residential property potable well at 975 Route 46 in Kenvil, Roxbury Township, Morris County, New Jersey.

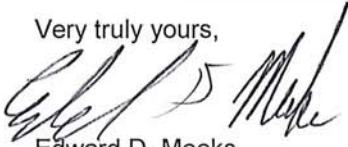
The potable well sample was collected in compliance with New Jersey Department of Environmental (NJDEP) guidance as part of the on-going environmental investigation/remediation of the Hercules property. Specifically, the potable well sample was collected to verify that the site related compounds are not present in the potable well sample at concentrations exceeding NJDEP's Groundwater Quality Standards established at the New Jersey Administrative Code 7:9C as required by New Jersey Administrative Code (N.J.A.C.) 7:26E-1.14.

Nitroaromatics and nitroamines are explosive compounds formerly manufactured at the Hercules property. The potable well sample was analyzed for nitroaromatics and nitroamines by United States Environmental Protection Agency (USEPA) Method SW846 8095. No nitroaromatics and nitroamines were detected in the potable well sample. The laboratory report is provided in Enclosure A.

Pursuant to New Jersey's Open Public Records Act (OPRA), potable well sampling results submitted to NJDEP become part of the public record for the former Kenvil Works Facility (also referred to as the Alliant Techsystems, Inc. Site). NJDEP is obligated to make this information available to any interested party that requests access to it through its Office of Record Access.

If you have any questions concerning the potable well sampling, please don't hesitate to contact me at either 302-995-3433 or edmeeks@ashland.com.

Very truly yours,



Edward D. Meeks

Remediation Project Manager

Enclosure

cc: Scott Larew, Principal Scientist/Project Manager, Kennedy/Jenks Consultants
Mark Foley, Licensed Site Remediation Professional, WSP Americas, Inc.
Roxbury Township Health Department

Enclosure A

Pace Analytical – Madison

SDG: A184813



2525 Advance Road
Madison, WI 53718
608.221.8700 Phone
608.221.4889 Fax

Pace Analytical - Madison

SDG: A184813

Report Prepared: 12/10/2018

Certification List

Expires

DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2019
ILEPA	Illinois Secondary NELAP Accreditation	004366	04/30/2019
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2019
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2019
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2018
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2019
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2018-087	08/31/2019
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2019
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2019

Case Narrative

CASE NARRATIVE

Sample Receipt Information:

2 samples were received on 12/01/2018. Samples were received at 2.2 degrees Celsius. Samples were received in acceptable condition.

Please see the chain of custody (COC) document at the end of this report for additional information.

Continuing Calibration Verification (CCV):

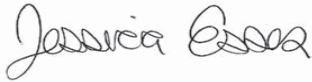
CCV indicates a potential high bias for multiple analytes for the explosive compounds by method 8095 analysis. Samples were less than the reporting limit for these analytes so no further action is required.

Surrogates:

2,2'-Dinitrobiphenyl (surrogate) recoveries indicate a potential high bias for samples A184813-01 and A184813-02 on the RTX-440 and RTX-TNT columns. The upper control limit on the RTX-440 column is 125% and the highest recovery was 146%. The upper control limit on the RTX-TNT column is 122% and the highest recovery was 160%. Surrogates are qualified with a S.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, unless conditions are detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature:



Name:

Jessica Esser

Date:

12/10/2018

Title:

Project Manager

ANALYSES DATA PACKAGE COVER PAGE

Laboratory: Pace Analytical - Madison

SDG: A184813

Client: Kennedy Jenks Consultants

Project: Ashland Kenvil - Kenvil, NJ

Client Sample Id:

PW-975-113018

BD-113018

Lab Sample Id:

A184813-01

A184813-02

Notes and Definitions

U	Analyte included in the analysis, but not detected
S	Surrogate recovery was outside of laboratory control limits due to an apparent matrix effect.
M	The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
RPD	Relative Percent Difference

TABLE 1
MANUAL INTEGRATION REVIEW CODES

Review Code:	Explanation of Review Code
NI	Indicates that the peak was not integrated at all by the computer software.
LT	Indicates that the peak in question was inappropriately integrated to an area or height less than what it should be (e.g., peak area/height was cut).
GT	Indicates that the peak in question was inappropriately integrated to an area or height greater than it should be (e.g., peak tailing).
BA	Indicates that the baseline had to be adjusted correctly by the analyst.
CO	Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
RT	Indicates that the retention time for the peak in question has shifted from the expected retention time.
INT	Indicates that there was electronic interference (e.g., noise).
WP	Indicates that the wrong peak was chosen by the data system.

REPORTING LIMITS

Laboratory: Pace Analytical - Madison

SDG: A184813

Client: Kennedy Jenks Consultants

Project: Ashland Kenvil - Kenvil, NJ

Matrix: Water

Instrument: 3336A52146

Analyte	MRL	Units	Method
3-Nitrotoluene [2C]	0.025	ug/L	EPA 8095
4-Nitrotoluene [2C]	0.025	ug/L	EPA 8095
Nitroglycerin [2C]	0.025	ug/L	EPA 8095
1,3-Dinitrobenzene [2C]	0.025	ug/L	EPA 8095
2,6-Dinitrotoluene [2C]	0.025	ug/L	EPA 8095
2,4-Dinitrotoluene [2C]	0.025	ug/L	EPA 8095
1,3,5-Trinitrobenzene [2C]	0.025	ug/L	EPA 8095
2,4,6-Trinitrotoluene [2C]	0.025	ug/L	EPA 8095
PETN [2C]	0.025	ug/L	EPA 8095
RDX [2C]	0.025	ug/L	EPA 8095
4-Amino-2,6-dinitrotoluene [2C]	0.050	ug/L	EPA 8095
3,5-Dinitroaniline [2C]	0.025	ug/L	EPA 8095
2-Amino-4,6-dinitrotoluene [2C]	0.025	ug/L	EPA 8095
Tetryl	0.025	ug/L	EPA 8095
HMX [2C]	0.025	ug/L	EPA 8095

ORGANIC ANALYSIS DATA SHEET

PW-975-113018

Laboratory: Pace Analytical - Madison SDG: A184813
 Client: Kennedy Jenks Consultants Project: Ashland Kenvil - Kenvil, NJ
 Matrix: Water Laboratory ID: A184813-01 File ID: 015B1501.D.Report.TXT
 Sampled: 11/30/18 10:30 Prepared: 12/03/18 10:03 Analyzed: 12/04/18 22:17
 Solids: Preparation: EPA 3511 Initial/Final: 400 mL / 10 mL
 Batch: A812098 Sequence: A8L0308 Calibration: A181203 Instrument: 3336A52146

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
35572-78-2	2-Amino-4,6-dinitrotoluene [2C]	1	0.025	M, U
19406-51-0	4-Amino-2,6-dinitrotoluene [2C]	1	0.050	M, U
618-87-1	3,5-Dinitroaniline [2C]	1	0.025	U
99-65-0	1,3-Dinitrobenzene [2C]	1	0.025	U
606-20-2	2,6-Dinitrotoluene [2C]	1	0.025	U
121-14-2	2,4-Dinitrotoluene [2C]	1	0.025	U
2691-41-0	HMX [2C]	1	0.025	U
55-63-0	Nitroglycerin [2C]	1	0.025	U
99-08-1	3-Nitrotoluene [2C]	1	0.025	U
99-99-0	4-Nitrotoluene [2C]	1	0.025	U
78-11-5	PETN [2C]	1	0.025	U
121-82-4	RDX [2C]	1	0.025	U
479-45-8	Tetryl	1	0.025	U
99-35-4	1,3,5-Trinitrobenzene [2C]	1	0.025	U
118-96-7	2,4,6-Trinitrotoluene [2C]	1	0.025	U

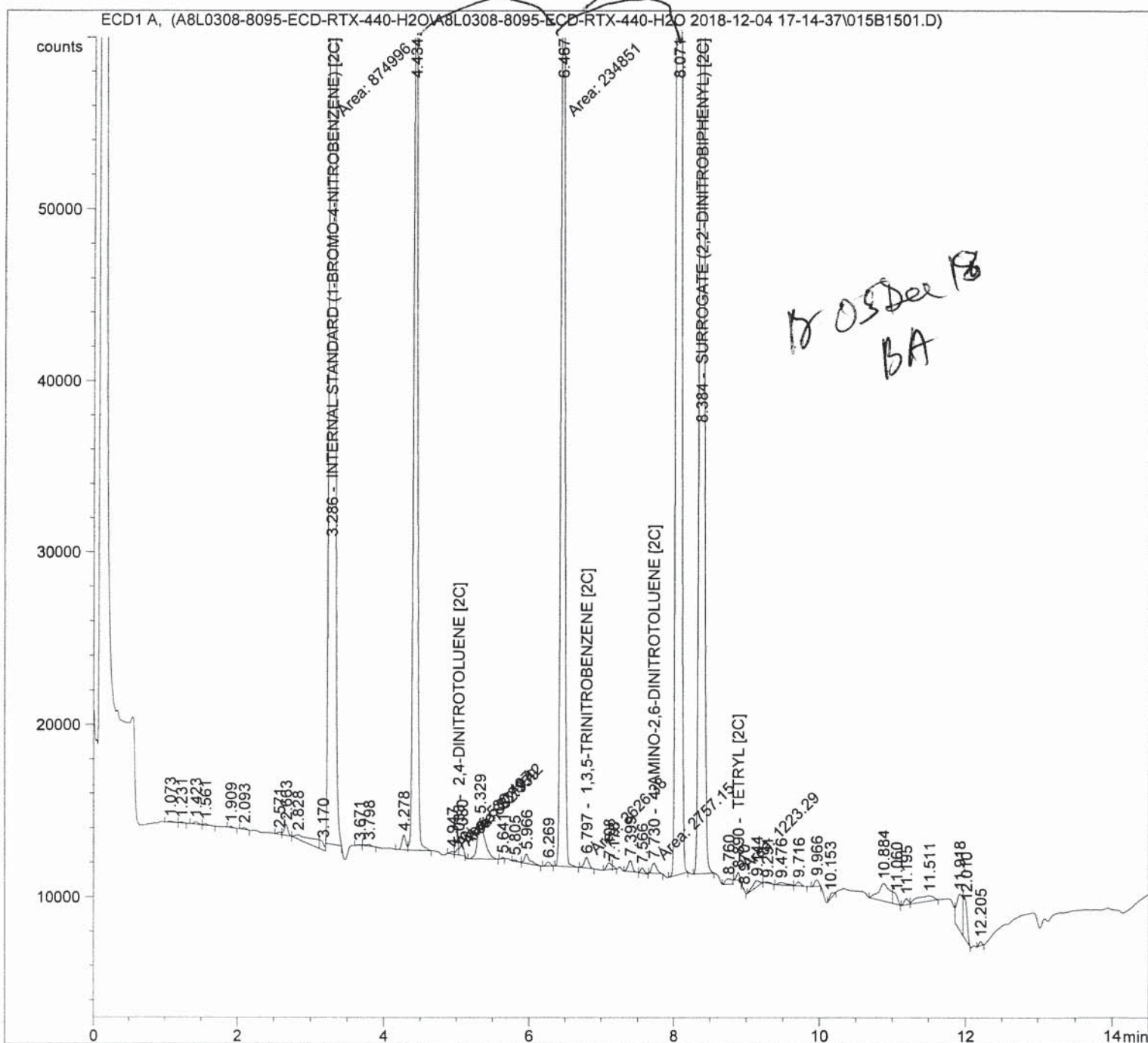
SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2,2'-Dinitrobiphenyl	1.250	2.00	160	85.3 - 122	S
2,2'-Dinitrobiphenyl [2C]	1.250	1.82	146	86.3 - 125	S

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1-Bromo-4-nitrobenzene	425264	4.301	187895	4.305	
1-Bromo-4-nitrobenzene [2C]	240727	3.286	120147	3.301	

=====

Acq. Operator	: RWJ	Seq. Line	: 15
Acq. Instrument	: 3337G12416	Location	: Vial 15
Injection Date	: 12/4/2018 10:23:15 PM	Inj	: 1
		Inj Volume	: Manually
Acq. Method	: C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O 2018-12-04 17-14-37\8095-ECD-RTX-440.M		
Last changed	: 11/9/2017 1:20:54 PM by JJK		
Analysis Method	: C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M		
Last changed	: 12/5/2018 10:27:07 AM by RWJ (modified after loading)		
Method Info	: Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON FILM (S/A 1161164). USING CYCLOSPITTER LINER ANND GOLD SEAL. INJECTION 2 UL.		

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 15
Acq. Instrument	: 3337G12416	Location	: Vial 15
Injection Date	: 12/4/2018 10:23:15 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Internal Standard Report

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 10:27:19 AM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

-----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE) [2C]
---	------------	---

Signal 1: ECD1 A,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
1.134	1		1	-	-	-		NITROBENZENE [2C]
1.748	1		1	-	-	-		2-NITROTOLUENE [2C]
2.069	1		1	-	-	-		3-NITROTOLUENE [2C]
2.229	1		1	-	-	-		4-NITROTOLUENE [2C]
3.286	1	MM +I	1	2.40727e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
3.732	1		1	-	-	-		NITROGLYCERIN [2C]
4.361	1		1	-	-	-		2,6-DINITROTOLUENE [2C]
4.397	1		1	-	-	-		1,3-DINTROBENZENE [2C]
5.033	1	FM	1	349.51849	1.02242	1.85560e-4		2,4-DINITROTOLUENE [2C]
5.306	1		1	-	-	-		3,4-DINITROTOLUENE [2C]
6.566	1		1	-	-	-		2,4,6-TRINITROTOLUENE [2C]
6.797	1	MM	1	603.22345	1.55950	4.88484e-4		1,3,5-TRINITROBENZENE [2C]
6.893	1		1	-	-	-		PETN [2C]
7.373	1		1	-	-	-		RDX [2C]
7.730	1	MM	1	585.66595	9.23230e-1	2.80767e-4		4-AMINO-2,6-DINITROTOLUENE [2C]
7.859	1		1	-	-	-		3,5-DINITROANILINE [2C]
8.022	1		1	-	-	-		2-AMINO-4,6-DINITROTOLUENE [2C]
8.384	1	BBA +	1	1.10307e5	1.27217	7.28674e-2		SURROGATE (2,2'-DINITROBIPHENYL) [2
8.890	1	MM	1	447.13751	4.43170	1.02896e-3		TETRYL [2C]
11.738	1		1	-	-	-		HMX [2C]

=====

Acq. Operator	: RWJ	Seq. Line	: 15
Acq. Instrument	: 3337G12416	Location	: Vial 15
Injection Date	: 12/4/2018 10:23:15 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Totals without ISTD(s) : 7.48512e-2

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

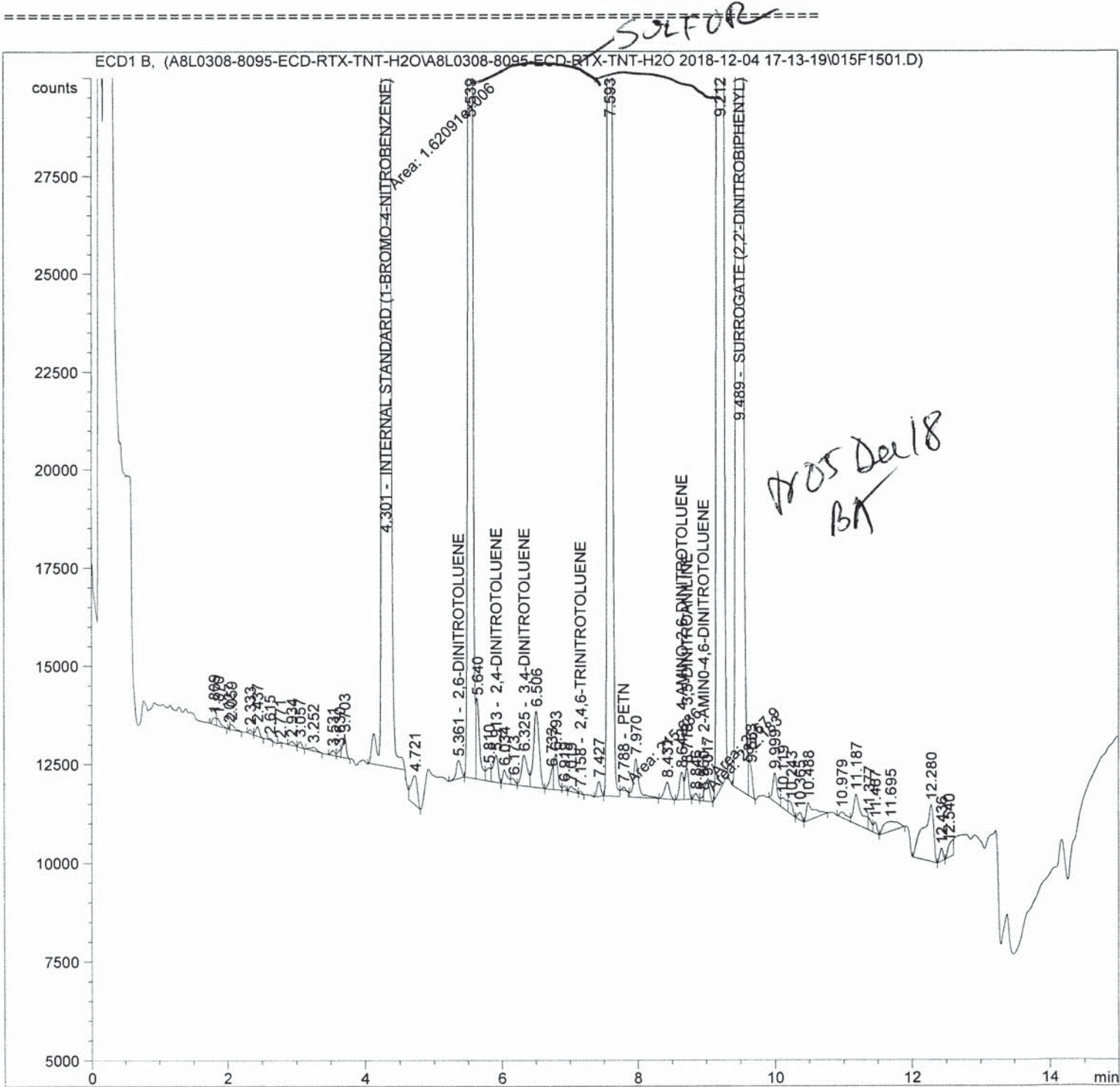
=====

*** End of Report ***

=====

Acq. Operator	: RWJ	Seq. Line	: 15
Acq. Instrument	: 3336A52146	Location	: Vial 15
Injection Date	: 12/4/2018 10:17:24 PM	Inj	: 1
		Inj Volume	: Manually
Acq. Method	: C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O 2018-12-04 17-13-19\8095-ECD-RTX-TNT.M		
Last changed	: 11/27/2018 11:38:48 AM by RWJ		
Analysis Method	: C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M		
Last changed	: 12/5/2018 12:13:01 PM by RWJ		
Method Info	: Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON FILM, (S/N 1153047/P).		
	INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.		

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 15
Acq. Instrument	: 3336A52146	Location	: Vial 15
Injection Date	: 12/4/2018 10:17:24 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPPLITTER LINER USING A GOLD SEAL.

=====

Internal Standard Report

=====

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 12:12:42 PM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

-----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE)
---	------------	--

Signal 1: ECD1 B,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
2.156	1		1	-	-	-		NITROBENZENE
2.850	1		1	-	-	-		2-NITROTOLUENE
3.167	1		1	-	-	-		3-NITROTOLUENE
3.315	1		1	-	-	-		4-NITROTOLUENE
4.301	1	MM +I	1	4.25264e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
4.596	1		1	-	-	-		NITROGLYCERIN
5.209	1		1	-	-	-		1,3-DINTROBENZENE
5.361	1	BB	1	453.67249	4.13892e-1	5.51927e-5		2,6-DINITROTOLUENE
5.913	1	VB	1	685.17975	9.97472e-1	2.00889e-4		2,4-DINITROTOLUENE
6.325	1	VV	1	776.30908	5.85779e-1	1.33666e-4		3,4-DINITROTOLUENE
6.996	1		1	-	-	-		1,3,5-TRINITROBENZENE
7.158	1	VB	1	65.97549	6.00536e-1	1.16459e-5		2,4,6-TRINITROTOLUENE
7.788	1	MM	1	83.54854	1.01047	2.48151e-5		PETN
8.115	1		1	-	-	-		RDX
8.642	1	BV	1	694.52649	9.30276e-1	1.89912e-4		4-AMINO-2,6-DINITROTOLUENE
8.718	1	VB	1	810.85846	9.59859e-1	2.28773e-4		3,5-DINITROANILINE
8.960	1	MF	1	159.75160	7.21431e-1	3.38760e-5		2-AMINO-4,6-DINITROTOLUENE
9.489	1	BV +	1	1.89052e5	1.44188	8.01243e-2		SURROGATE (2,2'-DINITROBIPHENYL)(HCH
9.586	1		1	-	-	-		TETRYL
12.226	1		1	-	-	-		HMX

Totals without ISTD(s) : 8.10031e-2

Sample Name: A184813-01

```
=====
Acq. Operator   : RWJ                      Seq. Line :   15
Acq. Instrument : 3336A52146                Location  : Vial 15
Injection Date  : 12/4/2018 10:17:24 PM      Inj       :    1
                                           Inj Volume: Manually
Acq. Method     : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
                  2018-12-04 17-13-19\8095-ECD-RTX-TNT.M
Last changed    : 11/27/2018 11:38:48 AM by RWJ
Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M
Last changed    : 12/5/2018 12:13:01 PM by RWJ
Method Info     : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID   1.5 MICRON
                  FILM, (S/N 1153047/P).
                  INJECTION 2 UL INTO A 4 MM CYCLOSPLITTER LINER USING A GOLD SEAL.
=====
```

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

```
=====
*** End of Report ***
```

ORGANIC ANALYSIS DATA SHEET

BD-113018

Laboratory: <u>Pace Analytical - Madison</u>	SDG: <u>A184813</u>	
Client: <u>Kennedy Jenks Consultants</u>	Project: <u>Ashland Kenvil - Kenvil, NJ</u>	
Matrix: <u>Water</u>	Laboratory ID: <u>A184813-02</u>	File ID: <u>018B1801.D.Report.TXT</u>
Sampled: <u>11/30/18 00:00</u>	Prepared: <u>12/03/18 10:03</u>	Analyzed: <u>12/04/18 23:21</u>
Solids:	Preparation: <u>EPA 3511</u>	Initial/Final: <u>400 mL / 10 mL</u>
Batch: <u>A812098</u>	Sequence: <u>A8L0308</u>	Calibration: <u>A181203</u>
		Instrument: <u>3336A52146</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
35572-78-2	2-Amino-4,6-dinitrotoluene [2C]	1	0.025	U
19406-51-0	4-Amino-2,6-dinitrotoluene [2C]	1	0.050	U
618-87-1	3,5-Dinitroaniline [2C]	1	0.025	U
99-65-0	1,3-Dinitrobenzene [2C]	1	0.025	U
606-20-2	2,6-Dinitrotoluene [2C]	1	0.025	U
121-14-2	2,4-Dinitrotoluene [2C]	1	0.025	U
2691-41-0	HMX [2C]	1	0.025	U
55-63-0	Nitroglycerin [2C]	1	0.025	U
99-08-1	3-Nitrotoluene [2C]	1	0.025	U
99-99-0	4-Nitrotoluene [2C]	1	0.025	U
78-11-5	PETN [2C]	1	0.025	U
121-82-4	RDX [2C]	1	0.025	U
479-45-8	Tetryl	1	0.025	U
99-35-4	1,3,5-Trinitrobenzene [2C]	1	0.025	U
118-96-7	2,4,6-Trinitrotoluene [2C]	1	0.025	U

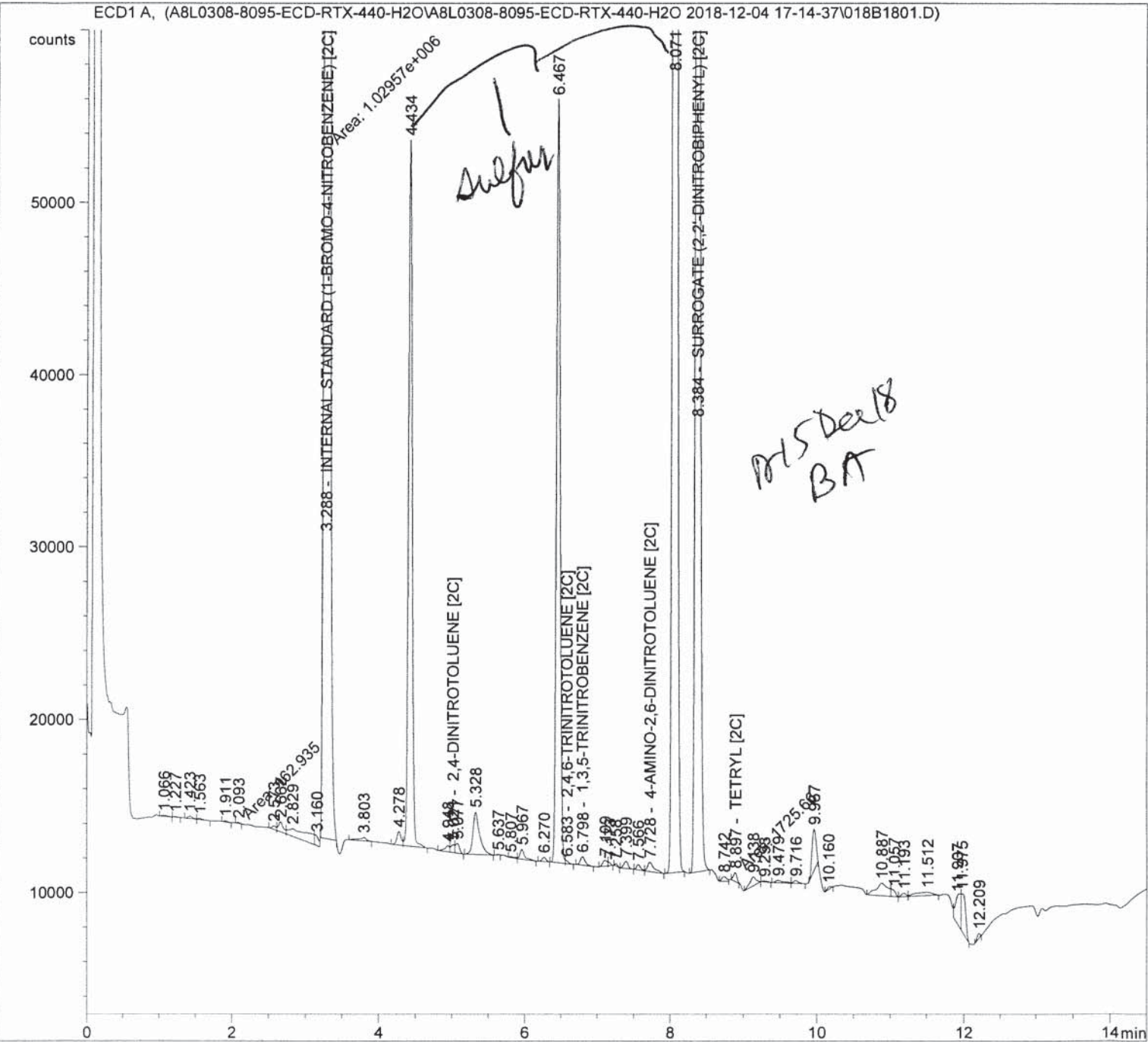
SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2,2'-Dinitrobiphenyl	1.250	1.88	150	85.3 - 122	S
2,2'-Dinitrobiphenyl [2C]	1.250	1.69	135	86.3 - 125	S

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1-Bromo-4-nitrobenzene	451841	4.303	187895	4.305	
1-Bromo-4-nitrobenzene [2C]	273660	3.288	120147	3.301	

=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3337G12416	Location	: Vial 18
Injection Date	: 12/4/2018 11:29:01 PM	Inj	: 1
		Inj Volume	: Manually
Acq. Method	: C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O 2018-12-04 17-14-37\8095-ECD-RTX-440.M		
Last changed	: 11/9/2017 1:20:54 PM by JJK		
Analysis Method	: C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M		
Last changed	: 12/5/2018 10:27:07 AM by RWJ (modified after loading)		
Method Info	: Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL. INJECTION 2 UL.		

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3337G12416	Location	: Vial 18
Injection Date	: 12/4/2018 11:29:01 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Internal Standard Report

=====

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 10:27:19 AM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

-----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE) [2C]
---	------------	---

Signal 1: ECD1 A,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
1.135	1		1	-	-	-		NITROBENZENE [2C]
1.749	1		1	-	-	-		2-NITROTOLUENE [2C]
2.071	1		1	-	-	-		3-NITROTOLUENE [2C]
2.231	1		1	-	-	-		4-NITROTOLUENE [2C]
3.288	1	MM +I	1	2.73660e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
3.733	1		1	-	-	-		NITROGLYCERIN [2C]
4.363	1		1	-	-	-		2,6-DINITROTOLUENE [2C]
4.398	1		1	-	-	-		1,3-DINTROBENZENE [2C]
5.021	1	VV	1	468.83282	1.03415	2.21462e-4		2,4-DINITROTOLUENE [2C]
5.308	1		1	-	-	-		3,4-DINITROTOLUENE [2C]
6.583	1	VB B	1	176.37682	5.82569e-1	4.69340e-5		2,4,6-TRINITROTOLUENE [2C]
6.798	1	BB	1	496.64670	1.53549	3.48333e-4		1,3,5-TRINITROBENZENE [2C]
6.894	1		1	-	-	-		PETN [2C]
7.373	1		1	-	-	-		RDX [2C]
7.728	1	VB	1	542.06433	9.07073e-1	2.24591e-4		4-AMINO-2,6-DINITROTOLUENE [2C]
7.859	1		1	-	-	-		3,5-DINITROANILINE [2C]
8.022	1		1	-	-	-		2-AMINO-4,6-DINITROTOLUENE [2C]
8.384	1	BBA +	1	1.17533e5	1.25814	6.75441e-2		SURROGATE (2,2'-DINITROBIPHENYL) [2
8.897	1	MM	1	513.98212	4.42891	1.03979e-3		TETRYL [2C]
11.739	1		1	-	-	-		HMX [2C]

=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3337G12416	Location	: Vial 18
Injection Date	: 12/4/2018 11:29:01 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Totals without ISTD(s) : 6.94252e-2

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

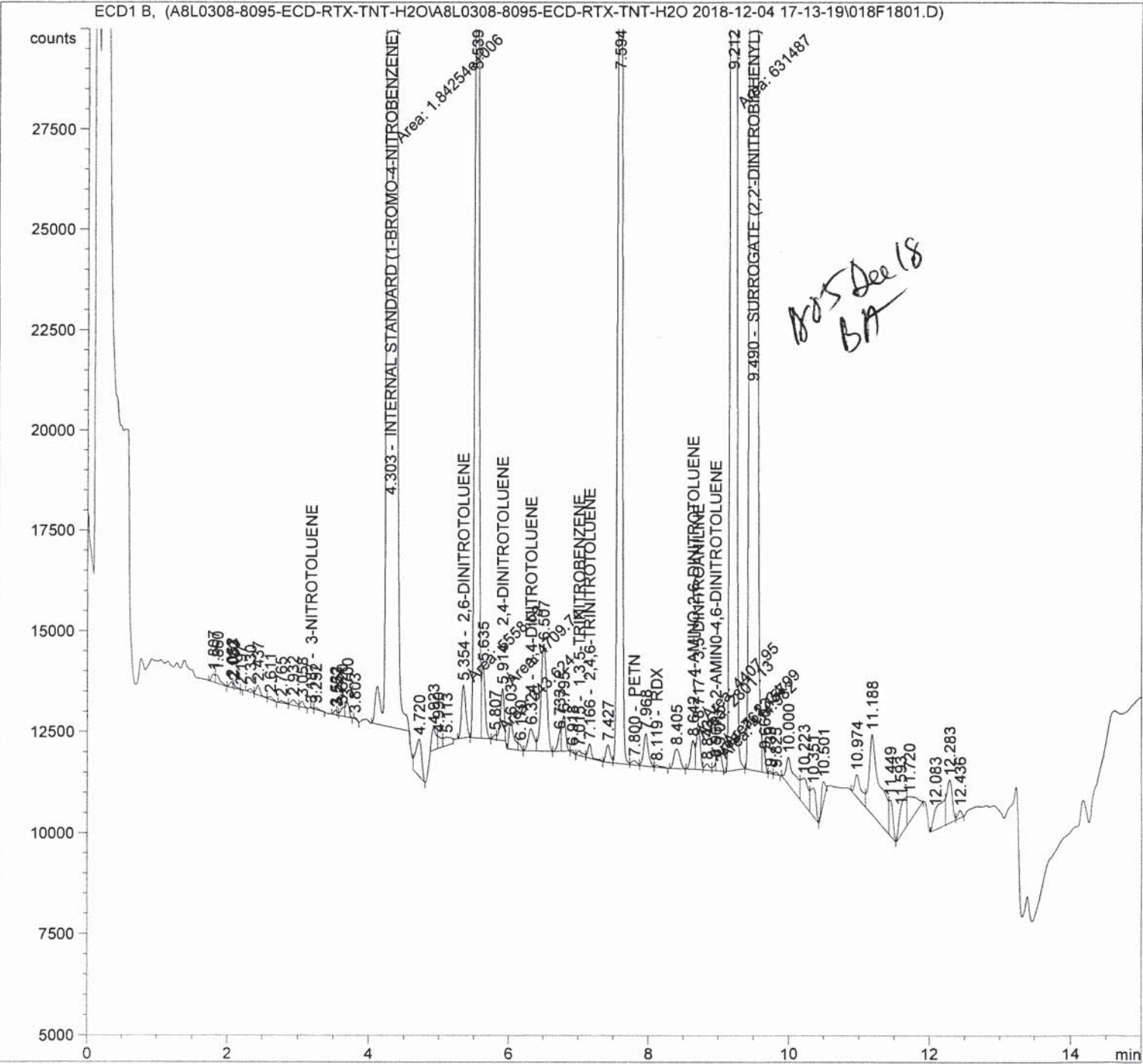
=====

*** End of Report ***

=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3336A52146	Location	: Vial 18
Injection Date	: 12/4/2018 11:21:52 PM	Inj	: 1
		Inj Volume	: Manually
Acq. Method	: C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O 2018-12-04 17-13-19\8095-ECD-RTX-TNT.M		
Last changed	: 11/27/2018 11:38:48 AM by RWJ		
Analysis Method	: C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M		
Last changed	: 12/5/2018 12:13:01 PM by RWJ		
Method Info	: Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON FILM, (S/N 1153047/P).		
	INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.		

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3336A52146	Location	: Vial 18
Injection Date	: 12/4/2018 11:21:52 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

=====

Internal Standard Report

=====

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 12:12:42 PM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE)
---	------------	--

Signal 1: ECD1 B,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
2.157	1		1	-	-	-		NITROBENZENE
2.851	1		1	-	-	-		2-NITROTOLUENE
3.187	1	VV B	1	16.22074	5.02525	2.25503e-5		3-NITROTOLUENE
3.316	1		1	-	-	-		4-NITROTOLUENE
4.303	1	MM +I	1	4.51841e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
4.598	1		1	-	-	-		NITROGLYCERIN
5.211	1		1	-	-	-		1,3-DINTROBENZENE
5.354	1	MM	1	1310.74536	4.63458e-1	1.68056e-4		2,6-DINITROTOLUENE
5.914	1	FM	1	1278.82239	1.05673	3.73851e-4		2,4-DINITROTOLUENE
6.324	1	BV	1	543.44257	5.62060e-1	8.45009e-5		3,4-DINITROTOLUENE
7.015	1	BV	1	121.33817	1.69499	5.68970e-5		1,3,5-TRINITROBENZENE
7.166	1	VB	1	351.08044	6.95089e-1	6.75105e-5		2,4,6-TRINITROTOLUENE
7.800	1	VV	1	106.48670	1.02904	3.03146e-5		PETN
8.119	1	VB	1	51.44064	7.82925e-1	1.11417e-5		RDX
8.642	1	MF	1	709.20367	9.26827e-1	1.81842e-4		4-AMINO-2,6-DINITROTOLUENE
8.717	1	MF	1	1149.08203	9.89523e-1	3.14559e-4		3,5-DINITROANILINE
8.967	1	MF	1	218.82613	7.39153e-1	4.47464e-5		2-AMINO-4,6-DINITROTOLUENE
9.490	1	BV +	1	1.90431e5	1.42706	7.51802e-2		SURROGATE (2,2'-DINITROBIPHENYL)
9.587	1		1	-	-	-		TETRYL
12.228	1		1	-	-	-		HMX

Totals without ISTD(s) : 7.65362e-2

=====

Acq. Operator	: RWJ	Seq. Line	: 18
Acq. Instrument	: 3336A52146	Location	: Vial 18
Injection Date	: 12/4/2018 11:21:52 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

=====

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

=====

*** End of Report ***

PREPARATION BATCH SUMMARY

EPA 8095

Laboratory: Pace Analytical - Madison

SDG: A184813

Client: Kennedy Jenks Consultants

Project: Ashland Kenvil - Kenvil, NJ

Batch: A812098

Batch Matrix: Water

Preparation: EPA 3511

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
PW-975-113018	A184813-01	12/03/18 10:03	400.00	10.00
BD-113018	A184813-02	12/03/18 10:03	400.00	10.00
Blank	A812098-BLK1	12/03/18 10:03	400.00	10.00
LCS	A812098-BS1	12/03/18 10:03	400.00	10.00
PW-975-113018	A812098-MS1	12/03/18 10:03	400.00	10.00
PW-975-113018	A812098-MSD1	12/03/18 10:03	400.00	10.00

PREPARATION BENCH SHEET

A812098

Pace Analytical - Madison

Printed: 12/3/2018 3:04:03PM

Matrix: Water

Prepared using: EXPLOSIVES-GCLC - EPA 3511

Surrogate used: A803279

Lab Number	Analysis	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	Spike ul	Surrogate ul	Sample Name	Extraction Comments
A184813-01	8095 ECD Full List	12/03/2018 10:03	400	10				50	PW-975-113018	report to RL, U qualifiers added
A184813-02	8095 ECD Full List	12/03/2018 10:03	400	10				50	BD-113018	report to RL, U qualifiers added
A812098-BLK1	QC	12/03/2018 10:03	400	10				50	Blank	
A812098-BS1	QC	12/03/2018 10:03	400	10	A803122		50	50	LCS	
A812098-MS1	QC	12/03/2018 10:03	400	10	A803122	A184813-01	50	50	Matrix Spike	
A812098-MSD1	QC	12/03/2018 10:03	400	10	A803122	A184813-01	50	50	Matrix Spike Dup	
Balance ID 24	Dispenser Checked?	NA			Turbovap Temperature Checked?	NA			(VOCs Only) pH <2	NA
Pipette Used NA	Repeater Used	NA			Syringe(s) Used	SYR0018, SYR0005				

Reagents:

Standard Number	Description	Lot Number
A802893	Sodium Chloride	17A105205
A802944	Ethyl Acetate	199916
A803180	Water, Chromasolv, HPLC	DU485-H-US

NOTE I.S. ADDED TO ALL SAMPLES PRIOR TO EXTRACTION 250 UL OF A802806 AT 5.0 UG/ML
400ml HONEYWELL (A803180) USED FOR BLK AND,BS
Sample volume used comparative method.

Spiked By R. Jelson Date 03 Dec 18
Responsible Party R. Jelson Date 03 Dec 18

METHOD BLANK DATA SHEET

EPA 8095

Laboratory: <u>Pace Analytical - Madison</u>	SDG: <u>A184813</u>	
Client: <u>Kennedy Jenks Consultants</u>	Project: <u>Ashland Kenvil - Kenvil, NJ</u>	
Matrix: <u>Water</u>	Laboratory ID: <u>A812098-BLK1</u>	File ID: <u>013F1301.D.Report.TXT</u>
Prepared: <u>12/03/18 10:03</u>	Preparation: <u>EPA 3511</u>	Initial/Final: <u>400 mL / 10 mL</u>
Analyzed: <u>12/04/18 21:34</u>	Instrument: <u>3336A52146</u>	
Batch: <u>A812098</u>	Sequence: <u>A8L0308</u>	Calibration: <u>A181203</u>

CAS NO.	COMPOUND	CONC. (ug/L)	Q
35572-78-2	2-Amino-4,6-dinitrotoluene	0.025	U
35572-78-2	2-Amino-4,6-dinitrotoluene [2C]	0.025	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.050	U
19406-51-0	4-Amino-2,6-dinitrotoluene [2C]	0.050	U
618-87-1	3,5-Dinitroaniline	0.025	U
618-87-1	3,5-Dinitroaniline [2C]	0.025	U
99-65-0	1,3-Dinitrobenzene	0.025	U
99-65-0	1,3-Dinitrobenzene [2C]	0.025	U
606-20-2	2,6-Dinitrotoluene	0.025	U
606-20-2	2,6-Dinitrotoluene [2C]	0.025	U
121-14-2	2,4-Dinitrotoluene	0.025	U
121-14-2	2,4-Dinitrotoluene [2C]	0.025	U
2691-41-0	HMX	0.025	U
2691-41-0	HMX [2C]	0.025	U
55-63-0	Nitroglycerin	0.025	U
55-63-0	Nitroglycerin [2C]	0.025	U
99-08-1	3-Nitrotoluene	0.025	U
99-08-1	3-Nitrotoluene [2C]	0.025	U
99-99-0	4-Nitrotoluene	0.025	U
99-99-0	4-Nitrotoluene [2C]	0.025	U
78-11-5	PETN	0.025	U
78-11-5	PETN [2C]	0.025	U
121-82-4	RDX	0.025	U
121-82-4	RDX [2C]	0.025	U
479-45-8	Tetryl	0.025	U
479-45-8	Tetryl [2C]	0.025	U
99-35-4	1,3,5-Trinitrobenzene	0.025	U
99-35-4	1,3,5-Trinitrobenzene [2C]	0.025	U
118-96-7	2,4,6-Trinitrotoluene	0.025	U
118-96-7	2,4,6-Trinitrotoluene [2C]	0.025	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
----------------------------	--------------	-------------	-------	-----------	---

METHOD BLANK DATA SHEET

EPA 8095

Laboratory: Pace Analytical - Madison SDG: A184813
Client: Kennedy Jenks Consultants Project: Ashland Kenvil - Kenvil, NJ
Matrix: Water Laboratory ID: A812098-BLK1 File ID: 013F1301.D.Report.TXT
Prepared: 12/03/18 10:03 Preparation: EPA 3511 Initial/Final: 400 mL / 10 mL
Analyzed: 12/04/18 21:34 Instrument: 3336A52146
Batch: A812098 Sequence: A8L0308 Calibration: A181203

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2,2'-Dinitrobiphenyl	1.250	1.32	105	85.3 - 122	
2,2'-Dinitrobiphenyl [2C]	1.250	1.26	101	86.3 - 125	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1-Bromo-4-nitrobenzene	351772	4.301	187895	4.305	
1-Bromo-4-nitrobenzene [2C]	268490	3.286	120147	3.301	

=====

Acq. Operator	: RWJ	Seq. Line	: 13
Acq. Instrument	: 3337G12416	Location	: Vial 13
Injection Date	: 12/4/2018 9:39:56 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

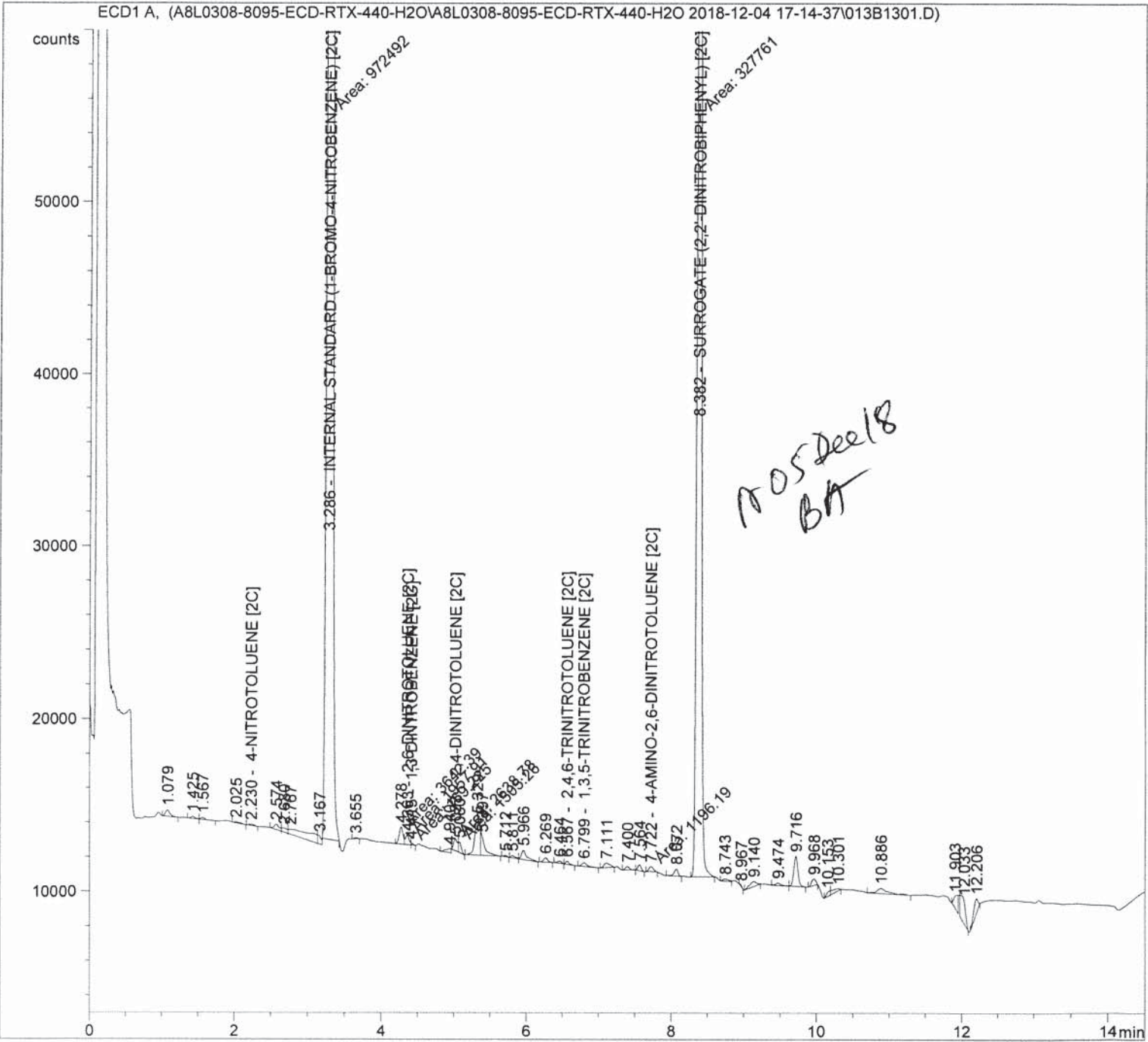
Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:03:58 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 13
Acq. Instrument	: 3337G12416	Location	: Vial 13
Injection Date	: 12/4/2018 9:39:56 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:03:58 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Internal Standard Report

=====

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 10:14:11 AM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

-----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE) [2C]
---	------------	---

Signal 1: ECD1 A,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
1.134	1		1	-	-	-		NITROBENZENE [2C]
1.749	1		1	-	-	-		2-NITROTOLUENE [2C]
2.070	1		1	-	-	-		3-NITROTOLUENE [2C]
2.230	1	BBA	1	77.30527	4.95208	1.78229e-4		4-NITROTOLUENE [2C]
3.286	1	MM +I	1	2.68490e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
3.732	1		1	-	-	-		NITROGLYCERIN [2C]
4.363	1	FM	1	553.73511	4.98013e-1	1.28388e-4		2,6-DINITROTOLUENE [2C]
4.415	1	FM	1	103.41725	9.65216e-1	4.64729e-5		1,3-DINTROBENZENE [2C]
5.023	1	MF	1	683.01654	1.06272	3.37933e-4		2,4-DINITROTOLUENE [2C]
5.306	1		1	-	-	-		3,4-DINITROTOLUENE [2C]
6.567	1	VB	1	182.00481	5.84881e-1	4.95601e-5		2,4,6-TRINITROTOLUENE [2C]
6.799	1	BB	1	210.64311	1.47480	1.44631e-4		1,3,5-TRINITROBENZENE [2C]
6.892	1		1	-	-	-		PETN [2C]
7.371	1		1	-	-	-		RDX [2C]
7.722	1	MM	1	289.34338	8.60875e-1	1.15967e-4		4-AMINO-2,6-DINITROTOLUENE [2C]
7.857	1		1	-	-	-		3,5-DINITROANILINE [2C]
8.020	1		1	-	-	-		2-AMINO-4,6-DINITROTOLUENE [2C]
8.382	1	MM +	1	9.00919e4	1.20607	5.05870e-2		SURROGATE (2,2'-DINITROBIPHENYL) [2
8.884	1		1	-	-	-		TETRYL [2C]
11.735	1		1	-	-	-		HMX [2C]

NOT Dec 18

```
=====
Acq. Operator   : RWJ                      Seq. Line :   13
Acq. Instrument : 3337G12416              Location  : Vial 13
Injection Date  : 12/4/2018 9:39:56 PM     Inj       :    1
                                           Inj Volume: Manually
Acq. Method     : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
                                           2018-12-04 17-14-37\8095-ECD-RTX-440.M
Last changed    : 11/9/2017 1:20:54 PM by JJK
Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M
Last changed    : 12/5/2018 10:03:58 AM by RWJ
                                           (modified after loading)
Method Info     : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
                                           FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
                                           INJECTION 2 UL.
=====
```

Totals without ISTD(s) : 5.15882e-2

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

```
=====
*** End of Report ***
=====
```

=====

Acq. Operator	: RWJ	Seq. Line	: 13
Acq. Instrument	: 3336A52146	Location	: Vial 13
Injection Date	: 12/4/2018 9:34:48 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

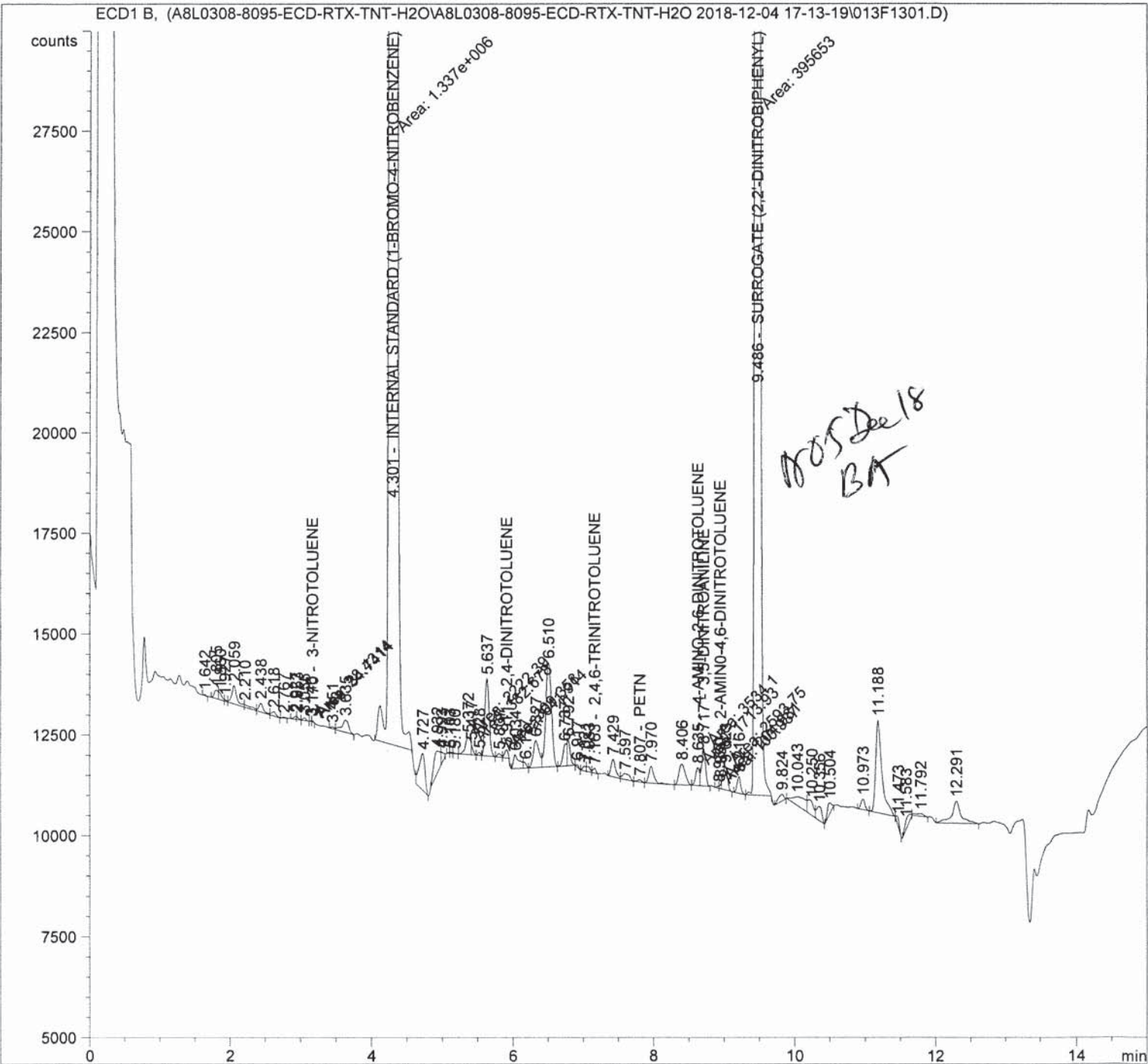
Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 13
Acq. Instrument	: 3336A52146	Location	: Vial 13
Injection Date	: 12/4/2018 9:34:48 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

Internal Standard Report

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 12:12:42 PM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

1 1.25000e-1 INTERNAL STANDARD (1-BROMO-4-NITROBENZENE)

Signal 1: ECD1 B,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
2.156	1		1	-	-	-		NITROBENZENE
2.850	1		1	-	-	-		2-NITROTOLUENE
3.170	1	FM	1	27.05532	5.25988	5.05682e-5		3-NITROTOLUENE
3.315	1		1	-	-	-		4-NITROTOLUENE
4.301	1	MM +I	1	3.51772e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
4.596	1		1	-	-	-		NITROGLYCERIN
5.209	1		1	-	-	-		1,3-DINTROBENZENE
5.346	1		1	-	-	-		2,6-DINITROTOLUENE
5.911	1	FM	1	208.23743	9.00242e-1	6.66143e-5		2,4-DINITROTOLUENE
6.305	1		1	-	-	-		3,4-DINITROTOLUENE
6.995	1		1	-	-	-		1,3,5-TRINITROBENZENE
7.163	1	VB	1	116.59019	6.43367e-1	2.66545e-5		2,4,6-TRINITROTOLUENE
7.807	1	BB	1	57.61481	9.92247e-1	2.03144e-5		PETN
8.113	1		1	-	-	-		RDX
8.635	1	MF	1	446.78329	9.08652e-1	1.44259e-4		4-AMINO-2,6-DINITROTOLUENE
8.717	1	FM	1	937.20148	9.94401e-1	3.31164e-4		3,5-DINITROANILINE
8.950	1	MF	1	168.85748	7.38526e-1	4.43134e-5		2-AMINO-4,6-DINITROTOLUENE
9.486	1	MM +	1	1.10136e5	1.34720	5.27243e-2		SURROGATE (2,2'-DINITROBIPHENYL)
9.583	1		1	-	-	-		TETRYL
12.223	1		1	-	-	-		HMX

Totals without ISTD(s) : 5.34082e-2

=====

Acq. Operator	: RWJ	Seq. Line	: 13
Acq. Instrument	: 3336A52146	Location	: Vial 13
Injection Date	: 12/4/2018 9:34:48 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPLITTER LINER USING A GOLD SEAL.

=====

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found

=====

*** End of Report ***

LCS / LCS DUPLICATE RECOVERY

EPA 8095

Laboratory: Pace Analytical - Madison

SDG: A184813

Client: Kennedy Jenks Consultants

Project: Ashland Kenvil - Kenvil, NJ

Matrix: Water

Batch: A812098

Laboratory ID: A812098-BS1

Preparation: EPA 3511

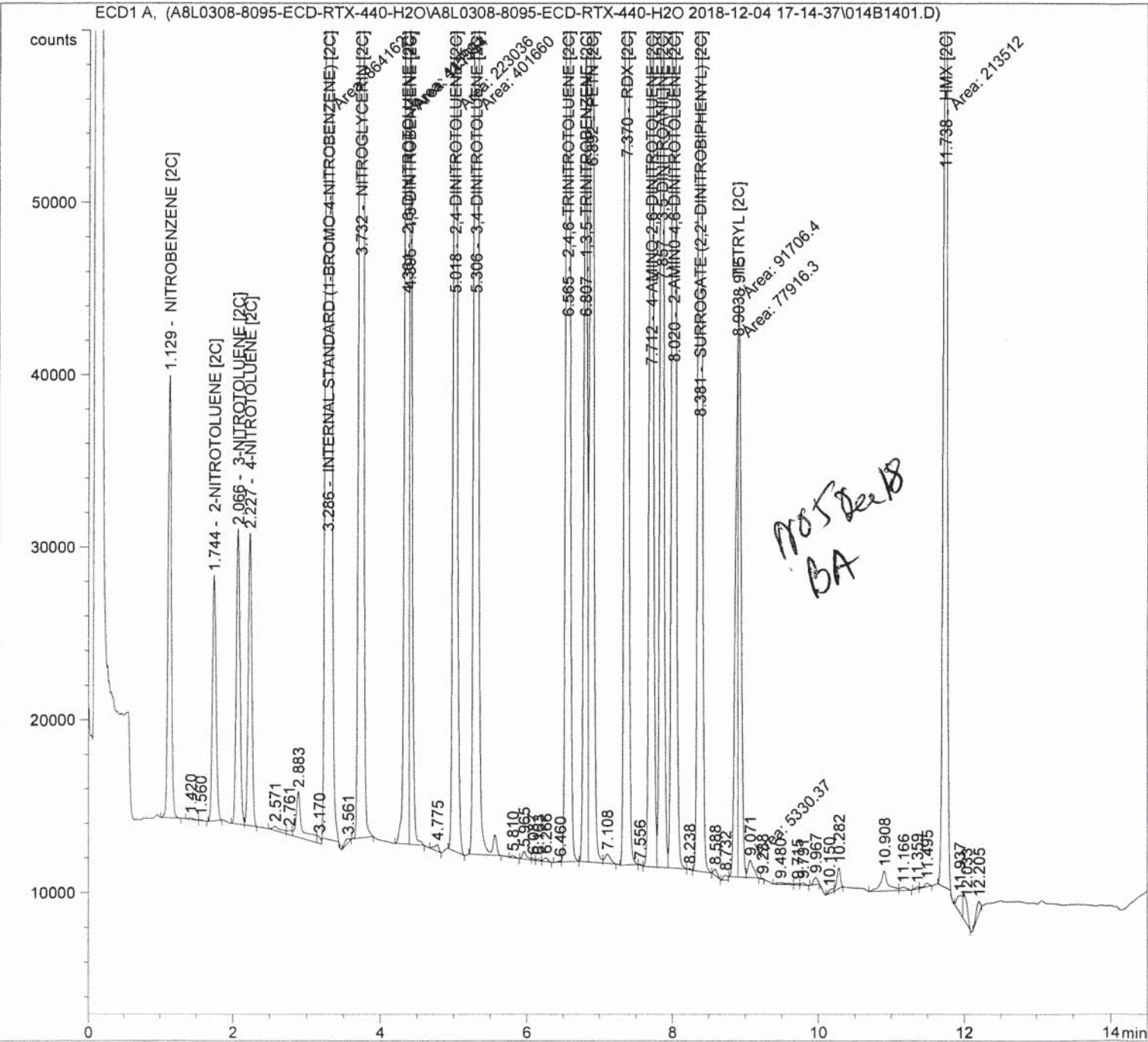
Initial/Final: 400 mL / 10 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
2-Amino-4,6-dinitrotoluene	1.250	1.25	99.7	77.4 - 118
2-Amino-4,6-dinitrotoluene [2C]	1.250	1.31	105	85.8 - 111
4-Amino-2,6-dinitrotoluene	1.250	1.20	96.1	80.6 - 116
4-Amino-2,6-dinitrotoluene [2C]	1.250	1.29	103	86.6 - 111
3,5-Dinitroaniline	1.250	1.22	97.5	70 - 130
3,5-Dinitroaniline [2C]	1.250	1.29	103	70 - 130
1,3-Dinitrobenzene	1.250	1.15	92.3	82.2 - 106
1,3-Dinitrobenzene [2C]	1.250	1.26	101	71.7 - 118
2,6-Dinitrotoluene	1.250	1.20	95.7	87.2 - 107
2,6-Dinitrotoluene [2C]	1.250	1.20	95.9	86.9 - 109
2,4-Dinitrotoluene	1.250	1.20	96.1	84.7 - 106
2,4-Dinitrotoluene [2C]	1.250	1.22	97.8	86.1 - 108
HMX	1.250	1.30	104	70 - 130
HMX [2C]	1.250	1.36	109	70 - 130
Nitroglycerin	1.250	1.26	100	70 - 130
Nitroglycerin [2C]	1.250	1.32	106	70 - 130
3-Nitrotoluene	1.250	1.26	101	82.9 - 118
3-Nitrotoluene [2C]	1.250	1.26	101	87.2 - 109
4-Nitrotoluene	1.250	1.28	102	90.5 - 120
4-Nitrotoluene [2C]	1.250	1.25	100	87.2 - 117
PETN	1.250	1.23	98.1	70 - 130
PETN [2C]	1.250	1.35	108	70 - 130
RDX	1.250	1.19	95.5	75.6 - 113
RDX [2C]	1.250	1.26	101	78.6 - 113
Tetryl	1.250	1.10	88.0	70 - 130
Tetryl [2C]	1.250	1.43	114	70 - 130
1,3,5-Trinitrobenzene	1.250	1.13	90.1	79.8 - 106
1,3,5-Trinitrobenzene [2C]	1.250	1.19	95.1	79 - 110
2,4,6-Trinitrotoluene	1.250	1.29	104	72.9 - 134
2,4,6-Trinitrotoluene [2C]	1.250	1.37	109	70.4 - 138

=====

Acq. Operator	: RWJ	Seq. Line	: 14
Acq. Instrument	: 3337G12416	Location	: Vial 14
Injection Date	: 12/4/2018 10:01:34 PM	Inj	: 1
		Inj Volume	: Manually
Acq. Method	: C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O 2018-12-04 17-14-37\8095-ECD-RTX-440.M		
Last changed	: 11/9/2017 1:20:54 PM by JJK		
Analysis Method	: C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M		
Last changed	: 12/5/2018 10:27:07 AM by RWJ (modified after loading)		
Method Info	: Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL. INJECTION 2 UL.		

=====



=====

Acq. Operator	: RWJ	Seq. Line	: 14
Acq. Instrument	: 3337G12416	Location	: Vial 14
Injection Date	: 12/4/2018 10:01:34 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Internal Standard Report

=====

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 10:27:19 AM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
#		

-----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE) [2C]
---	------------	---

Signal 1: ECD1 A,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
1.129	1	BBA	1	2.56622e4	3.62739	4.90984e-2		NITROBENZENE [2C]
1.744	1	BBA	1	1.41990e4	6.61347	4.95297e-2		2-NITROTOLUENE [2C]
2.066	1	BV	1	1.70979e4	5.57720	5.02964e-2		3-NITROTOLUENE [2C]
2.227	1	VBA	1	1.69590e4	5.60062	5.00974e-2		4-NITROTOLUENE [2C]
3.286	1	MM +I	1	2.36991e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
3.732	1	BBA	1	1.38763e5	7.21288e-1	5.27912e-2		NITROGLYCERIN [2C]
4.361	1	MF	1	1.19987e5	7.57571e-1	4.79441e-2		2,6-DINITROTOLUENE [2C]
4.395	1	FM	1	6.50427e4	1.47350	5.05508e-2		1,3-DINTROBENZENE [2C]
5.018	1	MM	1	6.32786e4	1.46465	4.88844e-2		2,4-DINITROTOLUENE [2C]
5.306	1	MM	1	1.11578e5	8.43562e-1	4.96450e-2		3,4-DINITROTOLUENE [2C]
6.565	1	VB	1	1.06456e5	9.73687e-1	5.46723e-2		2,4,6-TRINITROTOLUENE [2C]
6.807	1	BV	1	4.68472e4	1.92404	4.75418e-2		1,3,5-TRINITROBENZENE [2C]
6.892	1	VV	1	7.99948e4	1.28249	5.41122e-2		PETN [2C]
7.370	1	BBA	1	1.28104e5	7.44361e-1	5.02949e-2		RDX [2C]
7.712	1	BV	1	7.01107e4	1.39432	5.15613e-2		4-AMINO-2,6-DINITROTOLUENE [2C]
7.857	1	VV	1	7.30253e4	1.33849	5.15545e-2		3,5-DINITROANILINE [2C]
8.020	1	VBA	1	8.51645e4	1.16691	5.24174e-2		2-AMINO-4,6-DINITROTOLUENE [2C]
8.381	1	BB +	1	8.84364e4	1.22821	5.72904e-2		SURROGATE (2,2'-DINITROBIPHENYL) [2
8.903	1	MF	1	3.10840e4	3.48229	5.70927e-2		TETRYL [2C]
11.738	1	MM	1	6.68243e4	1.54578	5.44829e-2		HMX [2C]

=====

Acq. Operator	: RWJ	Seq. Line	: 14
Acq. Instrument	: 3337G12416	Location	: Vial 14
Injection Date	: 12/4/2018 10:01:34 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\2\DATA\A8L0308-8095-ECD-RTX-440-H2O\A8L0308-8095-ECD-RTX-440-H2O
2018-12-04 17-14-37\8095-ECD-RTX-440.M

Last changed : 11/9/2017 1:20:54 PM by JJK

Analysis Method : C:\CHEM32\2\METHODS\A8L0308-8095-ECD-RTX-440-H2O.M

Last changed : 12/5/2018 10:27:07 AM by RWJ
(modified after loading)

Method Info : Method 8095 for Explosives using an RTX-440 6M BY 0.53 MM ID 0.5 MICRON
FILM (S/A 1161164). USING CYCLOSPLITTER LINER ANND GOLD SEAL.
INJECTION 2 UL.

=====

Totals without ISTD(s) : 9.79858e-1

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

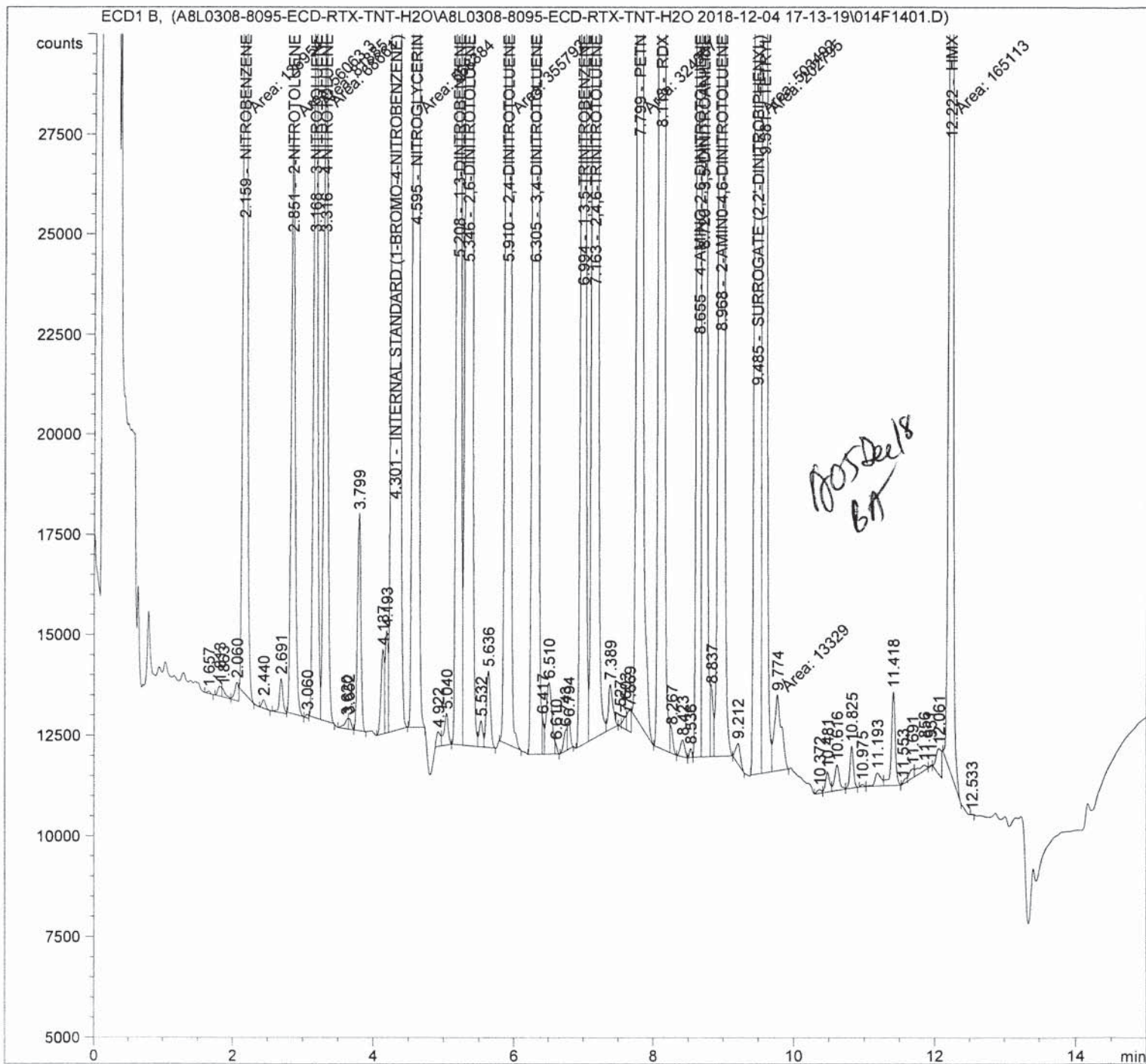
=====

*** End of Report ***

```

Acq. Operator   : RWJ                               Seq. Line :   14
Acq. Instrument : 3336A52146                         Location  : Vial 14
Injection Date  : 12/4/2018 9:56:07 PM                Inj       :    1
                                                    Inj Volume : Manually
Acq. Method     : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
                  2018-12-04 17-13-19\8095-ECD-RTX-TNT.M
Last changed    : 11/27/2018 11:38:48 AM by RWJ
Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M
Last changed    : 12/5/2018 12:13:01 PM by RWJ
Method Info     : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID   1.5 MICRON
                  FILM, (S/N 1153047/P).
                  INJECTION 2 UL INTO A 4 MM CYCLOSPLITTER LINER USING A GOLD SEAL.

```



=====

Acq. Operator	: RWJ	Seq. Line	: 14
Acq. Instrument	: 3336A52146	Location	: Vial 14
Injection Date	: 12/4/2018 9:56:07 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

Internal Standard Report

Sorted By : Retention Time

Calib. Data Modified : 12/5/2018 12:12:42 PM

Multiplier: : 1.0000

Dilution: : 1.0000

Sample Amount: : 1.00000 [] (not used in calc.)

Do not use Multiplier & Dilution Factor with ISTDs

Sample ISTD Information:

ISTD	ISTD Amount	Name
------	-------------	------

#

----|-----|-----

1	1.25000e-1	INTERNAL STANDARD (1-BROMO-4-NITROBENZENE)
---	------------	--

Signal 1: ECD1 B,

RetTime	Sig	Type	ISTD	Height	Amt/Height	Amount	Grp	Name
[min]			used	[counts]	ratio			
2.159	1	MM	1	3.56726e4	4.45754	4.64430e-2		NITROBENZENE
2.851	1	MM	1	1.48288e4	11.68424	5.06053e-2		2-NITROTOLUENE
3.168	1	MF	1	2.22270e4	7.77029	5.04438e-2		3-NITROTOLUENE
3.316	1	FM	1	1.84046e4	9.51804	5.11639e-2		4-NITROTOLUENE
4.301	1	VB +I	1	4.27976e5	1.00000	1.25000e-1		INTERNAL STANDARD (1-BROMO-4-NITROB
4.595	1	MM	1	1.66347e5	1.03347	5.02119e-2		NITROGLYCERIN
5.208	1	BV	1	5.24133e4	3.01456	4.61483e-2		1,3-DINTROBENZENE
5.346	1	VV	1	1.99059e5	8.22872e-1	4.78414e-2		2,6-DINITROTOLUENE
5.910	1	MM	1	9.91328e4	1.65924	4.80415e-2		2,4-DINITROTOLUENE
6.305	1	BV	1	1.72033e5	9.99583e-1	5.02251e-2		3,4-DINITROTOLUENE
6.994	1	BV	1	6.48703e4	2.37797	4.50549e-2		1,3,5-TRINITROBENZENE
7.163	1	VV	1	1.46714e5	1.20796	5.17628e-2		2,4,6-TRINITROTOLUENE
7.799	1	MM	1	8.33489e4	2.01513	4.90563e-2		PETN
8.113	1	BV	1	2.20366e5	7.41855e-1	4.77479e-2		RDX
8.655	1	BV	1	1.10119e5	1.49337	4.80308e-2		4-AMINO-2,6-DINITROTOLUENE
8.720	1	VV	1	1.04152e5	1.60240	4.87449e-2		3,5-DINITROANILINE
8.968	1	VB	1	1.25191e5	1.36269	4.98266e-2		2-AMINO-4,6-DINITROTOLUENE
9.485	1	MF +	1	1.38575e5	1.35600	5.48826e-2		SURROGATE (2,2'-DINITROBIPHENYL)
9.581	1	FM	1	5.60728e4	2.68680	4.40026e-2		TETRYL
12.222	1	MM	1	4.99552e4	3.55960	5.19366e-2		HMX

Totals without ISTD(s) : 9.32170e-1

=====

Acq. Operator	: RWJ	Seq. Line	: 14
Acq. Instrument	: 3336A52146	Location	: Vial 14
Injection Date	: 12/4/2018 9:56:07 PM	Inj	: 1
		Inj Volume	: Manually

Acq. Method : C:\CHEM32\1\DATA\A8L0308-8095-ECD-RTX-TNT-H2O\A8L0308-8095-ECD-RTX-TNT-H2O
2018-12-04 17-13-19\8095-ECD-RTX-TNT.M

Last changed : 11/27/2018 11:38:48 AM by RWJ

Analysis Method : C:\CHEM32\1\METHODS\A8L0308-ECD-8095-RTX-TNT-H2O.M

Last changed : 12/5/2018 12:13:01 PM by RWJ

Method Info : Method 8095 for Explosives using an RTX-TNT 6 M BY 0.53 MM ID 1.5 MICRON
FILM, (S/N 1153047/P).
INJECTION 2 UL INTO A 4 MM CYCLOSPITTER LINER USING A GOLD SEAL.

=====

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

*** End of Report ***

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8095

PW-975-113018

Laboratory: Pace Analytical - Madison

SDG: A184813

Client: Kennedy Jenks Consultants

Project: Ashland Kenvil - Kenvil, NJ

Matrix: Water

Batch: A812098

% Solids:

Source Sample Name: A184813-01

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
2-Amino-4,6-dinitrotoluene	1.250	ND	1.44	115		72.3 - 116
2-Amino-4,6-dinitrotoluene [2C]	1.250	ND	1.62	129	M	79.2 - 115
4-Amino-2,6-dinitrotoluene	1.250	0.00475	1.40	112		73.8 - 117
4-Amino-2,6-dinitrotoluene [2C]	1.250	0.00702	1.45	116	M	80.1 - 112
3,5-Dinitroaniline	1.250	0.00572	1.51	120		70 - 130
3,5-Dinitroaniline [2C]	1.250	ND	1.47	117		70 - 130
1,3-Dinitrobenzene	1.250	ND	1.28	103		71.8 - 109
1,3-Dinitrobenzene [2C]	1.250	ND	1.39	111		71.7 - 116
2,6-Dinitrotoluene	1.250	0.00138	1.29	103		85.9 - 106
2,6-Dinitrotoluene [2C]	1.250	ND	1.24	98.9		86.9 - 106
2,4-Dinitrotoluene	1.250	0.00502	1.44	115	M	84.6 - 105
2,4-Dinitrotoluene [2C]	1.250	0.00464	1.32	105		80.4 - 111
HMX	1.250	ND	1.22	98.0		70 - 130
HMX [2C]	1.250	ND	1.40	112		70 - 130
Nitroglycerin	1.250	ND	1.02	81.2		70 - 130
Nitroglycerin [2C]	1.250	ND	1.22	98.0		70 - 130
3-Nitrotoluene	1.250	ND	1.19	94.9		83.1 - 117
3-Nitrotoluene [2C]	1.250	ND	1.25	99.7		80.1 - 113
4-Nitrotoluene	1.250	ND	1.21	96.7		88.9 - 121
4-Nitrotoluene [2C]	1.250	ND	1.23	98.8		82.2 - 115
PETN	1.250	ND	0.971	77.7		70 - 130
PETN [2C]	1.250	ND	1.27	101		70 - 130
RDX	1.250	ND	1.03	82.5		73.7 - 111
RDX [2C]	1.250	ND	1.32	105		66.5 - 124
Tetryl	1.250	ND	1.35	108		70 - 130
Tetryl [2C]	1.250	0.0257	1.60	126		70 - 130
1,3,5-Trinitrobenzene	1.250	ND	1.46	117	M	72.6 - 110
1,3,5-Trinitrobenzene [2C]	1.250	0.0122	1.38	109		75.3 - 110
2,4,6-Trinitrotoluene	1.250	ND	1.57	126		68.8 - 135
2,4,6-Trinitrotoluene [2C]	1.250	ND	1.56	125		66.4 - 141

N