

**Environmental
Resources
Management**

One Beacon Street, 5th Floor
Boston, MA 02108
(617) 646-7800
(617) 267-6447 (fax)

<http://www.erm.com>

21 February 2018
Reference: 0437996

Mr. David Costello
National Development
2310 Washington Street
Newton Lower Falls, MA 02462



Re: Transmittal of Groundwater Analytical Data
Former Raytheon Facility
430 Boston Post Road, Wayland, Massachusetts

Dear Mr. Costello:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of groundwater sample analyses for the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). The results are being submitted pursuant to 310 CMR 40.1403(10) of the Massachusetts Contingency Plan.

Innovative Engineering Solutions, Inc. (IESI) collected groundwater samples from ten monitoring wells located on National Development property in January 2018. These samples were submitted to Alpha Analytical Laboratories, Inc. of Westborough, Massachusetts, and/or TestAmerica Laboratories, Inc. of Buffalo, NY for analysis. All analytical results are attached to this letter.

Raytheon has implemented the Public Involvement Process in accordance with 310 CMR 40.1405. Documents pertaining to the Site can be found at the Board of Health Public Involvement Plan files, or at <http://raytheon.erm.com/home.htm>.

If you have any questions or comments, please contact the undersigned at (617) 646-7800 or Jonathan Hone, Raytheon Company, at (978) 858-4784.

Mr. Costello
21 February 2018
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**Environmental
Resources
Management**

Sincerely,



Lyndsey Colburn, P.G.
Partner-in-Charge



Larry Mastera
Project Manager

enclosures: BWSC-123 - Notice of Environmental Sampling
Laboratory Analytical Reports (CD)

cc: Jonathan Hone, Raytheon Company
PIP Repositories



NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

-

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: _____
City/Town: _____ Zip Code: _____

B. This notice is being provided to the following party:

1. Name: _____
2. Street Address: _____
City/Town: _____ Zip Code: _____

C. This notice is being given to inform its recipient (the party listed in Section B):

- 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.
- 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: _____
City/Town: _____ Zip Code: _____

2. MCP phase of work during which the sampling will be/has been conducted:

- | | |
|--|---|
| Immediate Response Action | Phase III Feasibility Evaluation |
| Release Abatement Measure | Phase IV Remedy Implementation Plan |
| Utility-related Abatement Measure | Phase V/Remedy Operation Status |
| Phase I Initial Site Investigation | Post-Temporary Solution Operation, Maintenance and Monitoring |
| Phase II Comprehensive Site Assessment | Other _____ |
- (specify)

3. Description of property where sampling will be/has been conducted:
residential commercial industrial school/playground Other _____
(specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

E. Contact information related to the party providing this notice:

Contact Name: _____
Street Address: _____
City/Town: _____ Zip Code: _____
Telephone: _____ Email: _____



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

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NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/eea/agencies/massdep/cleanup>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://public.dep.state.ma.us/SearchableSites2/Search.aspx> to view site-specific files on-line or <http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html> if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-130175-1

Client Project/Site: IDS Wayland

For:

Innovative Engineering Solutions, Inc

25 Spring Street

Walpole, Massachusetts 02081

Attn: Vicki Pariyar



Authorized for release by:

1/24/2018 2:53:24 PM

Denise Giglia, Project Management Assistant II

denise.giglia@testamericainc.com

Designee for

Becky Mason, Project Manager II

(413)572-4000

becky.mason@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Job ID: 480-130175-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-130175-1

Receipt

The samples were received on 1/17/2018 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

GC/MS VOA

Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-268S-20180116 (480-130175-2) and MW-268M-20180116 (480-130175-3). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-267S-20180116 (480-130175-1), REW-6-20180116 (480-130175-4), REW-11-20180116 (480-130175-5) and DUP-20180116 (480-130175-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396114 exceeded control limits for the following analytes: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : MW-267S-20180116 (480-130175-1), MW-268S-20180116 (480-130175-2), MW-268M-20180116 (480-130175-3), REW-6-20180116 (480-130175-4), REW-11-20180116 (480-130175-5), DUP-20180116 (480-130175-6) and TRIP BLANK (480-130175-7).

Method 8260C: The continuing calibration verification (CCV) for Acetone, Dichlorodifluoromethane, Chloromethane and 1,4-Dioxane associated with batch 480-396114 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : MW-267S-20180116 (480-130175-1), MW-268S-20180116 (480-130175-2), MW-268M-20180116 (480-130175-3), REW-6-20180116 (480-130175-4), REW-11-20180116 (480-130175-5), DUP-20180116 (480-130175-6) and TRIP BLANK (480-130175-7).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396114 exceeded control limits for the following analyte: 2-Butanone and 2-Hexanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate, in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected MW-267S-20180116 (480-130175-1), MW-268S-20180116 (480-130175-2), MW-268M-20180116 (480-130175-3), REW-6-20180116 (480-130175-4), REW-11-20180116 (480-130175-5), DUP-20180116 (480-130175-6) and TRIP BLANK (480-130175-7).

Method 8260C: The method blank for preparation batch 480-396114 contained Hexachlorobutadiene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

Method 300.0: The following sample was reported with elevated reporting limits for all analytes: MW-268M-20180116 (480-130175-3). The sample was analyzed at a dilution based on screening results.

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-267S-20180116 (480-130175-1), REW-6-20180116 (480-130175-4) and REW-11-20180116 (480-130175-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Job ID: 480-130175-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Metals

Method 6010: At the request of the client, an abbreviated/modified MCP compound list was reported for this job.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 353.2: The following samples were filtered prior to analysis: MW-267S-20180116 (480-130175-1) and MW-268M-20180116 (480-130175-3).

Method SM 4500 P E: Due to the increasing color development after the 2 minute reaction time, the following samples were diluted due to the nature of the sample matrix: REW-6-20180116 (480-130175-4) and REW-11-20180116 (480-130175-5). Elevated reporting limits (RLs) are provided.

Method 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-267S-20180116 (480-130175-1), MW-268S-20180116 (480-130175-2), MW-268M-20180116 (480-130175-3), REW-6-20180116 (480-130175-4) and REW-11-20180116 (480-130175-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-130175**

Project Location: **IDS Waltham** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):
480-130175[1-7]

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
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Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: Denise L. Giglia Position: Project Manager Assistant II
 Printed Name: Denise L. Giglia Date: 1/24/18 14:38

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-267S-20180116

Lab Sample ID: 480-130175-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	600	*	200		ug/L	20		8260C	Total/NA
Toluene	110		20		ug/L	20		8260C	Total/NA
Vinyl chloride	36		20		ug/L	20		8260C	Total/NA
Iron	410		0.050		mg/L	1		6010	Total/NA
Chloride	85		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.40		0.20		mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	4300		500		mg/L	50		410.4	Total/NA
TOC Result 1	1300		40		mg/L	40		9060A	Total/NA
TOC Result 2	1300		40		mg/L	40		9060A	Total/NA
Total Organic Carbon - Duplicates	1300		40		mg/L	40		9060A	Total/NA
Alkalinity, Total	580		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.11		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.3	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.6	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: MW-268S-20180116

Lab Sample ID: 480-130175-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	100		4.0		ug/L	4		8260C	Total/NA
Trichloroethene	230		4.0		ug/L	4		8260C	Total/NA
Iron	1.0		0.050		mg/L	1		6010	Total/NA
Chloride	16		0.50		mg/L	1		300.0	Total/NA
Sulfate	25		2.0		mg/L	1		300.0	Total/NA
Chemical Oxygen Demand	160		20		mg/L	2		410.4	Total/NA
TOC Result 1	36		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	37		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	37		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	95		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.096		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	9.5	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.5	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: MW-268M-20180116

Lab Sample ID: 480-130175-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	37		2.0		ug/L	2		8260C	Total/NA
Toluene	4.8		2.0		ug/L	2		8260C	Total/NA
Vinyl chloride	77		2.0		ug/L	2		8260C	Total/NA
Iron	33		0.050		mg/L	1		6010	Total/NA
Chloride	37		1.0		mg/L	2		300.0	Total/NA
Ammonia	0.20		0.20		mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	22		10		mg/L	1		410.4	Total/NA
TOC Result 1	3.6		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	3.8		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	3.7		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	370		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.4	HF	0.1		SU	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268M-20180116 (Continued)

Lab Sample ID: 480-130175-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Temperature	20.3	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: REW-6-20180116

Lab Sample ID: 480-130175-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	620	*	100		ug/L	10		8260C	Total/NA
Toluene	13		10		ug/L	10		8260C	Total/NA
Iron	130		0.050		mg/L	1		6010	Total/NA
Chloride	90		5.0		mg/L	10		300.0	Total/NA
Ammonia	0.30		0.20		mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	7100		2000		mg/L	200		410.4	Total/NA
TOC Result 1	2400		80		mg/L	80		9060A	Total/NA
TOC Result 2	2500		80		mg/L	80		9060A	Total/NA
Total Organic Carbon - Duplicates	2400		80		mg/L	80		9060A	Total/NA
Alkalinity, Total	880		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.18		0.040		mg/L	2		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.9	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.4	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: REW-11-20180116

Lab Sample ID: 480-130175-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	370	*	200		ug/L	20		8260C	Total/NA
Toluene	23		20		ug/L	20		8260C	Total/NA
Iron	190		0.050		mg/L	1		6010	Total/NA
Chloride	110		5.0		mg/L	10		300.0	Total/NA
Ammonia	0.53		0.20		mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	9100		2000		mg/L	200		410.4	Total/NA
TOC Result 1	2400		80		mg/L	80		9060A	Total/NA
TOC Result 2	2400		80		mg/L	80		9060A	Total/NA
Total Organic Carbon - Duplicates	2400		80		mg/L	80		9060A	Total/NA
Alkalinity, Total	920		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.23		0.040		mg/L	2		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.0	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.7	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: DUP-20180116

Lab Sample ID: 480-130175-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	620	*	100		ug/L	10		8260C	Total/NA
Toluene	13		10		ug/L	10		8260C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130175-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-267S-20180116

Lab Sample ID: 480-130175-1

Date Collected: 01/16/18 12:30

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20		ug/L			01/17/18 16:31	20
1,1,1-Trichloroethane	ND		20		ug/L			01/17/18 16:31	20
1,1,2,2-Tetrachloroethane	ND		10		ug/L			01/17/18 16:31	20
1,1,2-Trichloroethane	ND		20		ug/L			01/17/18 16:31	20
1,1-Dichloroethane	ND		20		ug/L			01/17/18 16:31	20
1,1-Dichloroethene	ND		20		ug/L			01/17/18 16:31	20
1,1-Dichloropropene	ND		20		ug/L			01/17/18 16:31	20
1,2,3-Trichlorobenzene	ND		20		ug/L			01/17/18 16:31	20
1,2,3-Trichloropropane	ND		20		ug/L			01/17/18 16:31	20
1,2,4-Trichlorobenzene	ND		20		ug/L			01/17/18 16:31	20
1,2,4-Trimethylbenzene	ND		20		ug/L			01/17/18 16:31	20
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			01/17/18 16:31	20
1,2-Dichlorobenzene	ND		20		ug/L			01/17/18 16:31	20
1,2-Dichloroethane	ND		20		ug/L			01/17/18 16:31	20
1,2-Dichloropropane	ND		20		ug/L			01/17/18 16:31	20
1,3,5-Trimethylbenzene	ND		20		ug/L			01/17/18 16:31	20
1,3-Dichlorobenzene	ND		20		ug/L			01/17/18 16:31	20
1,3-Dichloropropane	ND		20		ug/L			01/17/18 16:31	20
1,4-Dichlorobenzene	ND		20		ug/L			01/17/18 16:31	20
1,4-Dioxane	ND	*	1000		ug/L			01/17/18 16:31	20
2,2-Dichloropropane	ND		20		ug/L			01/17/18 16:31	20
2-Butanone (MEK)	600	*	200		ug/L			01/17/18 16:31	20
2-Chlorotoluene	ND		20		ug/L			01/17/18 16:31	20
2-Hexanone	ND	*	200		ug/L			01/17/18 16:31	20
4-Chlorotoluene	ND		20		ug/L			01/17/18 16:31	20
4-Isopropyltoluene	ND		20		ug/L			01/17/18 16:31	20
4-Methyl-2-pentanone (MIBK)	ND		200		ug/L			01/17/18 16:31	20
Acetone	ND		1000		ug/L			01/17/18 16:31	20
Benzene	ND		20		ug/L			01/17/18 16:31	20
Bromobenzene	ND		20		ug/L			01/17/18 16:31	20
Bromoform	ND		20		ug/L			01/17/18 16:31	20
Bromomethane	ND		40		ug/L			01/17/18 16:31	20
Carbon disulfide	ND		200		ug/L			01/17/18 16:31	20
Carbon tetrachloride	ND		20		ug/L			01/17/18 16:31	20
Chlorobenzene	ND		20		ug/L			01/17/18 16:31	20
Chlorobromomethane	ND		20		ug/L			01/17/18 16:31	20
Chlorodibromomethane	ND		10		ug/L			01/17/18 16:31	20
Chloroethane	ND		40		ug/L			01/17/18 16:31	20
Chloroform	ND		20		ug/L			01/17/18 16:31	20
Chloromethane	ND		40		ug/L			01/17/18 16:31	20
cis-1,2-Dichloroethene	ND		20		ug/L			01/17/18 16:31	20
cis-1,3-Dichloropropene	ND		8.0		ug/L			01/17/18 16:31	20
Dichlorobromomethane	ND		10		ug/L			01/17/18 16:31	20
Dichlorodifluoromethane	ND		20		ug/L			01/17/18 16:31	20
Ethyl ether	ND		20		ug/L			01/17/18 16:31	20
Ethylbenzene	ND		20		ug/L			01/17/18 16:31	20
Ethylene Dibromide	ND		20		ug/L			01/17/18 16:31	20
Hexachlorobutadiene	ND		8.0		ug/L			01/17/18 16:31	20
Isopropyl ether	ND		200		ug/L			01/17/18 16:31	20

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-267S-20180116

Lab Sample ID: 480-130175-1

Date Collected: 01/16/18 12:30

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		20		ug/L			01/17/18 16:31	20
Methyl tert-butyl ether	ND		20		ug/L			01/17/18 16:31	20
Methylene Chloride	ND		20		ug/L			01/17/18 16:31	20
m-Xylene & p-Xylene	ND		40		ug/L			01/17/18 16:31	20
Naphthalene	ND		100		ug/L			01/17/18 16:31	20
n-Butylbenzene	ND		20		ug/L			01/17/18 16:31	20
N-Propylbenzene	ND		20		ug/L			01/17/18 16:31	20
o-Xylene	ND		20		ug/L			01/17/18 16:31	20
sec-Butylbenzene	ND		20		ug/L			01/17/18 16:31	20
Styrene	ND		20		ug/L			01/17/18 16:31	20
Tert-amyl methyl ether	ND		100		ug/L			01/17/18 16:31	20
Tert-butyl ethyl ether	ND		100		ug/L			01/17/18 16:31	20
tert-Butylbenzene	ND		20		ug/L			01/17/18 16:31	20
Tetrachloroethene	ND		20		ug/L			01/17/18 16:31	20
Tetrahydrofuran	ND		200		ug/L			01/17/18 16:31	20
Toluene	110		20		ug/L			01/17/18 16:31	20
trans-1,2-Dichloroethene	ND		20		ug/L			01/17/18 16:31	20
trans-1,3-Dichloropropene	ND		8.0		ug/L			01/17/18 16:31	20
Trichloroethene	ND		20		ug/L			01/17/18 16:31	20
Trichlorofluoromethane	ND		20		ug/L			01/17/18 16:31	20
Vinyl chloride	36		20		ug/L			01/17/18 16:31	20
Dibromomethane	ND		20		ug/L			01/17/18 16:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		70 - 130		01/17/18 16:31	20
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		01/17/18 16:31	20
4-Bromofluorobenzene (Surr)	99		70 - 130		01/17/18 16:31	20

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	410		0.050		mg/L		01/17/18 08:48	01/17/18 19:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	85		2.5		mg/L			01/18/18 17:22	5
Sulfate	ND		10		mg/L			01/18/18 17:22	5
Ammonia	0.40		0.20		mg/L		01/18/18 09:02	01/20/18 12:08	1
Nitrate as N	ND		0.050		mg/L			01/17/18 15:27	1
Chemical Oxygen Demand	4300		500		mg/L			01/18/18 15:15	50
TOC Result 1	1300		40		mg/L			01/21/18 20:58	40
TOC Result 2	1300		40		mg/L			01/21/18 20:58	40
Total Organic Carbon - Duplicates	1300		40		mg/L			01/21/18 20:58	40
Alkalinity, Total	580		5.0		mg/L			01/19/18 23:19	1
ortho-Phosphate	0.11		0.020		mg/L			01/17/18 23:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.3	HF	0.1		SU			01/17/18 14:31	1
Temperature	20.6	HF	0.001		Degrees C			01/17/18 14:31	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268S-20180116

Lab Sample ID: 480-130175-2

Date Collected: 01/16/18 09:10

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0		ug/L			01/17/18 16:56	4
1,1,1-Trichloroethane	ND		4.0		ug/L			01/17/18 16:56	4
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			01/17/18 16:56	4
1,1,2-Trichloroethane	ND		4.0		ug/L			01/17/18 16:56	4
1,1-Dichloroethane	ND		4.0		ug/L			01/17/18 16:56	4
1,1-Dichloroethene	ND		4.0		ug/L			01/17/18 16:56	4
1,1-Dichloropropene	ND		4.0		ug/L			01/17/18 16:56	4
1,2,3-Trichlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,2,3-Trichloropropane	ND		4.0		ug/L			01/17/18 16:56	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,2,4-Trimethylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			01/17/18 16:56	4
1,2-Dichlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,2-Dichloroethane	ND		4.0		ug/L			01/17/18 16:56	4
1,2-Dichloropropane	ND		4.0		ug/L			01/17/18 16:56	4
1,3,5-Trimethylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,3-Dichlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,3-Dichloropropane	ND		4.0		ug/L			01/17/18 16:56	4
1,4-Dichlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
1,4-Dioxane	ND *		200		ug/L			01/17/18 16:56	4
2,2-Dichloropropane	ND		4.0		ug/L			01/17/18 16:56	4
2-Butanone (MEK)	ND *		40		ug/L			01/17/18 16:56	4
2-Chlorotoluene	ND		4.0		ug/L			01/17/18 16:56	4
2-Hexanone	ND *		40		ug/L			01/17/18 16:56	4
4-Chlorotoluene	ND		4.0		ug/L			01/17/18 16:56	4
4-Isopropyltoluene	ND		4.0		ug/L			01/17/18 16:56	4
4-Methyl-2-pentanone (MIBK)	ND		40		ug/L			01/17/18 16:56	4
Acetone	ND		200		ug/L			01/17/18 16:56	4
Benzene	ND		4.0		ug/L			01/17/18 16:56	4
Bromobenzene	ND		4.0		ug/L			01/17/18 16:56	4
Bromoform	ND		4.0		ug/L			01/17/18 16:56	4
Bromomethane	ND		8.0		ug/L			01/17/18 16:56	4
Carbon disulfide	ND		40		ug/L			01/17/18 16:56	4
Carbon tetrachloride	ND		4.0		ug/L			01/17/18 16:56	4
Chlorobenzene	ND		4.0		ug/L			01/17/18 16:56	4
Chlorobromomethane	ND		4.0		ug/L			01/17/18 16:56	4
Chlorodibromomethane	ND		2.0		ug/L			01/17/18 16:56	4
Chloroethane	ND		8.0		ug/L			01/17/18 16:56	4
Chloroform	ND		4.0		ug/L			01/17/18 16:56	4
Chloromethane	ND		8.0		ug/L			01/17/18 16:56	4
cis-1,2-Dichloroethene	100		4.0		ug/L			01/17/18 16:56	4
cis-1,3-Dichloropropene	ND		1.6		ug/L			01/17/18 16:56	4
Dichlorobromomethane	ND		2.0		ug/L			01/17/18 16:56	4
Dichlorodifluoromethane	ND		4.0		ug/L			01/17/18 16:56	4
Ethyl ether	ND		4.0		ug/L			01/17/18 16:56	4
Ethylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
Ethylene Dibromide	ND		4.0		ug/L			01/17/18 16:56	4
Hexachlorobutadiene	ND		1.6		ug/L			01/17/18 16:56	4
Isopropyl ether	ND		40		ug/L			01/17/18 16:56	4

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268S-20180116

Lab Sample ID: 480-130175-2

Date Collected: 01/16/18 09:10

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
Methyl tert-butyl ether	ND		4.0		ug/L			01/17/18 16:56	4
Methylene Chloride	ND		4.0		ug/L			01/17/18 16:56	4
m-Xylene & p-Xylene	ND		8.0		ug/L			01/17/18 16:56	4
Naphthalene	ND		20		ug/L			01/17/18 16:56	4
n-Butylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
N-Propylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
o-Xylene	ND		4.0		ug/L			01/17/18 16:56	4
sec-Butylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
Styrene	ND		4.0		ug/L			01/17/18 16:56	4
Tert-amyl methyl ether	ND		20		ug/L			01/17/18 16:56	4
Tert-butyl ethyl ether	ND		20		ug/L			01/17/18 16:56	4
tert-Butylbenzene	ND		4.0		ug/L			01/17/18 16:56	4
Tetrachloroethene	ND		4.0		ug/L			01/17/18 16:56	4
Tetrahydrofuran	ND		40		ug/L			01/17/18 16:56	4
Toluene	ND		4.0		ug/L			01/17/18 16:56	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			01/17/18 16:56	4
trans-1,3-Dichloropropene	ND		1.6		ug/L			01/17/18 16:56	4
Trichloroethene	230		4.0		ug/L			01/17/18 16:56	4
Trichlorofluoromethane	ND		4.0		ug/L			01/17/18 16:56	4
Vinyl chloride	ND		4.0		ug/L			01/17/18 16:56	4
Dibromomethane	ND		4.0		ug/L			01/17/18 16:56	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		01/17/18 16:56	4
1,2-Dichloroethane-d4 (Surr)	105		70 - 130		01/17/18 16:56	4
4-Bromofluorobenzene (Surr)	99		70 - 130		01/17/18 16:56	4

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.0		0.050		mg/L		01/17/18 08:48	01/17/18 19:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16		0.50		mg/L			01/18/18 17:31	1
Sulfate	25		2.0		mg/L			01/18/18 17:31	1
Ammonia	ND		0.20		mg/L		01/18/18 09:02	01/20/18 12:09	1
Nitrate as N	ND		0.050		mg/L			01/17/18 15:28	1
Chemical Oxygen Demand	160		20		mg/L			01/18/18 15:15	2
TOC Result 1	36		1.0		mg/L			01/24/18 01:15	1
TOC Result 2	37		1.0		mg/L			01/24/18 01:15	1
Total Organic Carbon - Duplicates	37		1.0		mg/L			01/24/18 01:15	1
Alkalinity, Total	95		5.0		mg/L			01/19/18 23:26	1
ortho-Phosphate	0.096		0.020		mg/L			01/17/18 23:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.5	HF	0.1		SU			01/17/18 14:34	1
Temperature	20.5	HF	0.001		Degrees C			01/17/18 14:34	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268M-20180116

Lab Sample ID: 480-130175-3

Date Collected: 01/16/18 06:55

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			01/17/18 17:21	2
1,1,1-Trichloroethane	ND		2.0		ug/L			01/17/18 17:21	2
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/17/18 17:21	2
1,1,2-Trichloroethane	ND		2.0		ug/L			01/17/18 17:21	2
1,1-Dichloroethane	ND		2.0		ug/L			01/17/18 17:21	2
1,1-Dichloroethene	ND		2.0		ug/L			01/17/18 17:21	2
1,1-Dichloropropene	ND		2.0		ug/L			01/17/18 17:21	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,2,3-Trichloropropane	ND		2.0		ug/L			01/17/18 17:21	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,2,4-Trimethylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			01/17/18 17:21	2
1,2-Dichlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,2-Dichloroethane	ND		2.0		ug/L			01/17/18 17:21	2
1,2-Dichloropropane	ND		2.0		ug/L			01/17/18 17:21	2
1,3,5-Trimethylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,3-Dichlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,3-Dichloropropane	ND		2.0		ug/L			01/17/18 17:21	2
1,4-Dichlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
1,4-Dioxane	ND *		100		ug/L			01/17/18 17:21	2
2,2-Dichloropropane	ND		2.0		ug/L			01/17/18 17:21	2
2-Butanone (MEK)	ND *		20		ug/L			01/17/18 17:21	2
2-Chlorotoluene	ND		2.0		ug/L			01/17/18 17:21	2
2-Hexanone	ND *		20		ug/L			01/17/18 17:21	2
4-Chlorotoluene	ND		2.0		ug/L			01/17/18 17:21	2
4-Isopropyltoluene	ND		2.0		ug/L			01/17/18 17:21	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			01/17/18 17:21	2
Acetone	ND		100		ug/L			01/17/18 17:21	2
Benzene	ND		2.0		ug/L			01/17/18 17:21	2
Bromobenzene	ND		2.0		ug/L			01/17/18 17:21	2
Bromoform	ND		2.0		ug/L			01/17/18 17:21	2
Bromomethane	ND		4.0		ug/L			01/17/18 17:21	2
Carbon disulfide	ND		20		ug/L			01/17/18 17:21	2
Carbon tetrachloride	ND		2.0		ug/L			01/17/18 17:21	2
Chlorobenzene	ND		2.0		ug/L			01/17/18 17:21	2
Chlorobromomethane	ND		2.0		ug/L			01/17/18 17:21	2
Chlorodibromomethane	ND		1.0		ug/L			01/17/18 17:21	2
Chloroethane	ND		4.0		ug/L			01/17/18 17:21	2
Chloroform	ND		2.0		ug/L			01/17/18 17:21	2
Chloromethane	ND		4.0		ug/L			01/17/18 17:21	2
cis-1,2-Dichloroethene	37		2.0		ug/L			01/17/18 17:21	2
cis-1,3-Dichloropropene	ND		0.80		ug/L			01/17/18 17:21	2
Dichlorobromomethane	ND		1.0		ug/L			01/17/18 17:21	2
Dichlorodifluoromethane	ND		2.0		ug/L			01/17/18 17:21	2
Ethyl ether	ND		2.0		ug/L			01/17/18 17:21	2
Ethylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
Ethylene Dibromide	ND		2.0		ug/L			01/17/18 17:21	2
Hexachlorobutadiene	ND		0.80		ug/L			01/17/18 17:21	2
Isopropyl ether	ND		20		ug/L			01/17/18 17:21	2

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268M-20180116

Lab Sample ID: 480-130175-3

Date Collected: 01/16/18 06:55

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
Methyl tert-butyl ether	ND		2.0		ug/L			01/17/18 17:21	2
Methylene Chloride	ND		2.0		ug/L			01/17/18 17:21	2
m-Xylene & p-Xylene	ND		4.0		ug/L			01/17/18 17:21	2
Naphthalene	ND		10		ug/L			01/17/18 17:21	2
n-Butylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
N-Propylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
o-Xylene	ND		2.0		ug/L			01/17/18 17:21	2
sec-Butylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
Styrene	ND		2.0		ug/L			01/17/18 17:21	2
Tert-amyl methyl ether	ND		10		ug/L			01/17/18 17:21	2
Tert-butyl ethyl ether	ND		10		ug/L			01/17/18 17:21	2
tert-Butylbenzene	ND		2.0		ug/L			01/17/18 17:21	2
Tetrachloroethene	ND		2.0		ug/L			01/17/18 17:21	2
Tetrahydrofuran	ND		20		ug/L			01/17/18 17:21	2
Toluene	4.8		2.0		ug/L			01/17/18 17:21	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			01/17/18 17:21	2
trans-1,3-Dichloropropene	ND		0.80		ug/L			01/17/18 17:21	2
Trichloroethene	ND		2.0		ug/L			01/17/18 17:21	2
Trichlorofluoromethane	ND		2.0		ug/L			01/17/18 17:21	2
Vinyl chloride	77		2.0		ug/L			01/17/18 17:21	2
Dibromomethane	ND		2.0		ug/L			01/17/18 17:21	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130		01/17/18 17:21	2
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		01/17/18 17:21	2
4-Bromofluorobenzene (Surr)	100		70 - 130		01/17/18 17:21	2

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	33		0.050		mg/L		01/17/18 08:48	01/17/18 19:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37		1.0		mg/L			01/18/18 17:39	2
Sulfate	ND		4.0		mg/L			01/18/18 17:39	2
Ammonia	0.20		0.20		mg/L		01/18/18 09:02	01/20/18 12:09	1
Nitrate as N	ND		0.050		mg/L			01/17/18 15:29	1
Chemical Oxygen Demand	22		10		mg/L			01/18/18 15:15	1
TOC Result 1	3.6		1.0		mg/L			01/21/18 21:54	1
TOC Result 2	3.8		1.0		mg/L			01/21/18 21:54	1
Total Organic Carbon - Duplicates	3.7		1.0		mg/L			01/21/18 21:54	1
Alkalinity, Total	370		5.0		mg/L			01/19/18 23:34	1
ortho-Phosphate	ND		0.020		mg/L			01/17/18 23:00	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF	0.1		SU			01/17/18 14:36	1
Temperature	20.3	HF	0.001		Degrees C			01/17/18 14:36	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: REW-6-20180116

Lab Sample ID: 480-130175-4

Date Collected: 01/16/18 11:40

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			01/17/18 17:47	10
1,1,1-Trichloroethane	ND		10		ug/L			01/17/18 17:47	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			01/17/18 17:47	10
1,1,2-Trichloroethane	ND		10		ug/L			01/17/18 17:47	10
1,1-Dichloroethane	ND		10		ug/L			01/17/18 17:47	10
1,1-Dichloroethene	ND		10		ug/L			01/17/18 17:47	10
1,1-Dichloropropene	ND		10		ug/L			01/17/18 17:47	10
1,2,3-Trichlorobenzene	ND		10		ug/L			01/17/18 17:47	10
1,2,3-Trichloropropane	ND		10		ug/L			01/17/18 17:47	10
1,2,4-Trichlorobenzene	ND		10		ug/L			01/17/18 17:47	10
1,2,4-Trimethylbenzene	ND		10		ug/L			01/17/18 17:47	10
1,2-Dibromo-3-Chloropropane	ND		50		ug/L			01/17/18 17:47	10
1,2-Dichlorobenzene	ND		10		ug/L			01/17/18 17:47	10
1,2-Dichloroethane	ND		10		ug/L			01/17/18 17:47	10
1,2-Dichloropropane	ND		10		ug/L			01/17/18 17:47	10
1,3,5-Trimethylbenzene	ND		10		ug/L			01/17/18 17:47	10
1,3-Dichlorobenzene	ND		10		ug/L			01/17/18 17:47	10
1,3-Dichloropropane	ND		10		ug/L			01/17/18 17:47	10
1,4-Dichlorobenzene	ND		10		ug/L			01/17/18 17:47	10
1,4-Dioxane	ND *		500		ug/L			01/17/18 17:47	10
2,2-Dichloropropane	ND		10		ug/L			01/17/18 17:47	10
2-Butanone (MEK)	620 *		100		ug/L			01/17/18 17:47	10
2-Chlorotoluene	ND		10		ug/L			01/17/18 17:47	10
2-Hexanone	ND *		100		ug/L			01/17/18 17:47	10
4-Chlorotoluene	ND		10		ug/L			01/17/18 17:47	10
4-Isopropyltoluene	ND		10		ug/L			01/17/18 17:47	10
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			01/17/18 17:47	10
Acetone	ND		500		ug/L			01/17/18 17:47	10
Benzene	ND		10		ug/L			01/17/18 17:47	10
Bromobenzene	ND		10		ug/L			01/17/18 17:47	10
Bromoform	ND		10		ug/L			01/17/18 17:47	10
Bromomethane	ND		20		ug/L			01/17/18 17:47	10
Carbon disulfide	ND		100		ug/L			01/17/18 17:47	10
Carbon tetrachloride	ND		10		ug/L			01/17/18 17:47	10
Chlorobenzene	ND		10		ug/L			01/17/18 17:47	10
Chlorobromomethane	ND		10		ug/L			01/17/18 17:47	10
Chlorodibromomethane	ND		5.0		ug/L			01/17/18 17:47	10
Chloroethane	ND		20		ug/L			01/17/18 17:47	10
Chloroform	ND		10		ug/L			01/17/18 17:47	10
Chloromethane	ND		20		ug/L			01/17/18 17:47	10
cis-1,2-Dichloroethene	ND		10		ug/L			01/17/18 17:47	10
cis-1,3-Dichloropropene	ND		4.0		ug/L			01/17/18 17:47	10
Dichlorobromomethane	ND		5.0		ug/L			01/17/18 17:47	10
Dichlorodifluoromethane	ND		10		ug/L			01/17/18 17:47	10
Ethyl ether	ND		10		ug/L			01/17/18 17:47	10
Ethylbenzene	ND		10		ug/L			01/17/18 17:47	10
Ethylene Dibromide	ND		10		ug/L			01/17/18 17:47	10
Hexachlorobutadiene	ND		4.0		ug/L			01/17/18 17:47	10
Isopropyl ether	ND		100		ug/L			01/17/18 17:47	10

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: REW-6-20180116

Lab Sample ID: 480-130175-4

Date Collected: 01/16/18 11:40

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		10		ug/L			01/17/18 17:47	10
Methyl tert-butyl ether	ND		10		ug/L			01/17/18 17:47	10
Methylene Chloride	ND		10		ug/L			01/17/18 17:47	10
m-Xylene & p-Xylene	ND		20		ug/L			01/17/18 17:47	10
Naphthalene	ND		50		ug/L			01/17/18 17:47	10
n-Butylbenzene	ND		10		ug/L			01/17/18 17:47	10
N-Propylbenzene	ND		10		ug/L			01/17/18 17:47	10
o-Xylene	ND		10		ug/L			01/17/18 17:47	10
sec-Butylbenzene	ND		10		ug/L			01/17/18 17:47	10
Styrene	ND		10		ug/L			01/17/18 17:47	10
Tert-amyl methyl ether	ND		50		ug/L			01/17/18 17:47	10
Tert-butyl ethyl ether	ND		50		ug/L			01/17/18 17:47	10
tert-Butylbenzene	ND		10		ug/L			01/17/18 17:47	10
Tetrachloroethene	ND		10		ug/L			01/17/18 17:47	10
Tetrahydrofuran	ND		100		ug/L			01/17/18 17:47	10
Toluene	13		10		ug/L			01/17/18 17:47	10
trans-1,2-Dichloroethene	ND		10		ug/L			01/17/18 17:47	10
trans-1,3-Dichloropropene	ND		4.0		ug/L			01/17/18 17:47	10
Trichloroethene	ND		10		ug/L			01/17/18 17:47	10
Trichlorofluoromethane	ND		10		ug/L			01/17/18 17:47	10
Vinyl chloride	ND		10		ug/L			01/17/18 17:47	10
Dibromomethane	ND		10		ug/L			01/17/18 17:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		01/17/18 17:47	10
1,2-Dichloroethane-d4 (Surr)	104		70 - 130		01/17/18 17:47	10
4-Bromofluorobenzene (Surr)	98		70 - 130		01/17/18 17:47	10

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	130		0.050		mg/L		01/17/18 08:48	01/17/18 19:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90		5.0		mg/L			01/18/18 17:47	10
Sulfate	ND		20		mg/L			01/18/18 17:47	10
Ammonia	0.30		0.20		mg/L		01/18/18 09:02	01/20/18 12:10	1
Nitrate as N	ND		0.050		mg/L			01/17/18 15:30	1
Chemical Oxygen Demand	7100		2000		mg/L			01/18/18 15:15	200
TOC Result 1	2400		80		mg/L			01/21/18 22:22	80
TOC Result 2	2500		80		mg/L			01/21/18 22:22	80
Total Organic Carbon - Duplicates	2400		80		mg/L			01/21/18 22:22	80
Alkalinity, Total	880		5.0		mg/L			01/20/18 13:02	1
ortho-Phosphate	0.18		0.040		mg/L			01/17/18 23:00	2
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.9	HF	0.1		SU			01/17/18 14:39	1
Temperature	20.4	HF	0.001		Degrees C			01/17/18 14:39	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: REW-11-20180116

Lab Sample ID: 480-130175-5

Date Collected: 01/16/18 10:45

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20		ug/L			01/17/18 18:12	20
1,1,1-Trichloroethane	ND		20		ug/L			01/17/18 18:12	20
1,1,2,2-Tetrachloroethane	ND		10		ug/L			01/17/18 18:12	20
1,1,2-Trichloroethane	ND		20		ug/L			01/17/18 18:12	20
1,1-Dichloroethane	ND		20		ug/L			01/17/18 18:12	20
1,1-Dichloroethene	ND		20		ug/L			01/17/18 18:12	20
1,1-Dichloropropene	ND		20		ug/L			01/17/18 18:12	20
1,2,3-Trichlorobenzene	ND		20		ug/L			01/17/18 18:12	20
1,2,3-Trichloropropane	ND		20		ug/L			01/17/18 18:12	20
1,2,4-Trichlorobenzene	ND		20		ug/L			01/17/18 18:12	20
1,2,4-Trimethylbenzene	ND		20		ug/L			01/17/18 18:12	20
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			01/17/18 18:12	20
1,2-Dichlorobenzene	ND		20		ug/L			01/17/18 18:12	20
1,2-Dichloroethane	ND		20		ug/L			01/17/18 18:12	20
1,2-Dichloropropane	ND		20		ug/L			01/17/18 18:12	20
1,3,5-Trimethylbenzene	ND		20		ug/L			01/17/18 18:12	20
1,3-Dichlorobenzene	ND		20		ug/L			01/17/18 18:12	20
1,3-Dichloropropane	ND		20		ug/L			01/17/18 18:12	20
1,4-Dichlorobenzene	ND		20		ug/L			01/17/18 18:12	20
1,4-Dioxane	ND *		1000		ug/L			01/17/18 18:12	20
2,2-Dichloropropane	ND		20		ug/L			01/17/18 18:12	20
2-Butanone (MEK)	370 *		200		ug/L			01/17/18 18:12	20
2-Chlorotoluene	ND		20		ug/L			01/17/18 18:12	20
2-Hexanone	ND *		200		ug/L			01/17/18 18:12	20
4-Chlorotoluene	ND		20		ug/L			01/17/18 18:12	20
4-Isopropyltoluene	ND		20		ug/L			01/17/18 18:12	20
4-Methyl-2-pentanone (MIBK)	ND		200		ug/L			01/17/18 18:12	20
Acetone	ND		1000		ug/L			01/17/18 18:12	20
Benzene	ND		20		ug/L			01/17/18 18:12	20
Bromobenzene	ND		20		ug/L			01/17/18 18:12	20
Bromoform	ND		20		ug/L			01/17/18 18:12	20
Bromomethane	ND		40		ug/L			01/17/18 18:12	20
Carbon disulfide	ND		200		ug/L			01/17/18 18:12	20
Carbon tetrachloride	ND		20		ug/L			01/17/18 18:12	20
Chlorobenzene	ND		20		ug/L			01/17/18 18:12	20
Chlorobromomethane	ND		20		ug/L			01/17/18 18:12	20
Chlorodibromomethane	ND		10		ug/L			01/17/18 18:12	20
Chloroethane	ND		40		ug/L			01/17/18 18:12	20
Chloroform	ND		20		ug/L			01/17/18 18:12	20
Chloromethane	ND		40		ug/L			01/17/18 18:12	20
cis-1,2-Dichloroethene	ND		20		ug/L			01/17/18 18:12	20
cis-1,3-Dichloropropene	ND		8.0		ug/L			01/17/18 18:12	20
Dichlorobromomethane	ND		10		ug/L			01/17/18 18:12	20
Dichlorodifluoromethane	ND		20		ug/L			01/17/18 18:12	20
Ethyl ether	ND		20		ug/L			01/17/18 18:12	20
Ethylbenzene	ND		20		ug/L			01/17/18 18:12	20
Ethylene Dibromide	ND		20		ug/L			01/17/18 18:12	20
Hexachlorobutadiene	ND		8.0		ug/L			01/17/18 18:12	20
Isopropyl ether	ND		200		ug/L			01/17/18 18:12	20

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: REW-11-20180116

Lab Sample ID: 480-130175-5

Date Collected: 01/16/18 10:45

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		20		ug/L			01/17/18 18:12	20
Methyl tert-butyl ether	ND		20		ug/L			01/17/18 18:12	20
Methylene Chloride	ND		20		ug/L			01/17/18 18:12	20
m-Xylene & p-Xylene	ND		40		ug/L			01/17/18 18:12	20
Naphthalene	ND		100		ug/L			01/17/18 18:12	20
n-Butylbenzene	ND		20		ug/L			01/17/18 18:12	20
N-Propylbenzene	ND		20		ug/L			01/17/18 18:12	20
o-Xylene	ND		20		ug/L			01/17/18 18:12	20
sec-Butylbenzene	ND		20		ug/L			01/17/18 18:12	20
Styrene	ND		20		ug/L			01/17/18 18:12	20
Tert-amyl methyl ether	ND		100		ug/L			01/17/18 18:12	20
Tert-butyl ethyl ether	ND		100		ug/L			01/17/18 18:12	20
tert-Butylbenzene	ND		20		ug/L			01/17/18 18:12	20
Tetrachloroethene	ND		20		ug/L			01/17/18 18:12	20
Tetrahydrofuran	ND		200		ug/L			01/17/18 18:12	20
Toluene	23		20		ug/L			01/17/18 18:12	20
trans-1,2-Dichloroethene	ND		20		ug/L			01/17/18 18:12	20
trans-1,3-Dichloropropene	ND		8.0		ug/L			01/17/18 18:12	20
Trichloroethene	ND		20		ug/L			01/17/18 18:12	20
Trichlorofluoromethane	ND		20		ug/L			01/17/18 18:12	20
Vinyl chloride	ND		20		ug/L			01/17/18 18:12	20
Dibromomethane	ND		20		ug/L			01/17/18 18:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		01/17/18 18:12	20
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		01/17/18 18:12	20
4-Bromofluorobenzene (Surr)	99		70 - 130		01/17/18 18:12	20

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	190		0.050		mg/L		01/17/18 08:48	01/17/18 19:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.0		mg/L			01/18/18 17:55	10
Sulfate	ND		20		mg/L			01/18/18 17:55	10
Ammonia	0.53		0.20		mg/L		01/18/18 09:02	01/20/18 12:11	1
Nitrate as N	ND		0.050		mg/L			01/17/18 15:37	1
Chemical Oxygen Demand	9100		2000		mg/L			01/18/18 15:15	200
TOC Result 1	2400		80		mg/L			01/21/18 22:49	80
TOC Result 2	2400		80		mg/L			01/21/18 22:49	80
Total Organic Carbon - Duplicates	2400		80		mg/L			01/21/18 22:49	80
Alkalinity, Total	920		5.0		mg/L			01/20/18 13:14	1
ortho-Phosphate	0.23		0.040		mg/L			01/17/18 23:00	2
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.0	HF	0.1		SU			01/17/18 14:28	1
Temperature	20.7	HF	0.001		Degrees C			01/17/18 14:28	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: DUP-20180116

Lab Sample ID: 480-130175-6

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			01/17/18 18:37	10
1,1,1-Trichloroethane	ND		10		ug/L			01/17/18 18:37	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			01/17/18 18:37	10
1,1,2-Trichloroethane	ND		10		ug/L			01/17/18 18:37	10
1,1-Dichloroethane	ND		10		ug/L			01/17/18 18:37	10
1,1-Dichloroethene	ND		10		ug/L			01/17/18 18:37	10
1,1-Dichloropropene	ND		10		ug/L			01/17/18 18:37	10
1,2,3-Trichlorobenzene	ND		10		ug/L			01/17/18 18:37	10
1,2,3-Trichloropropane	ND		10		ug/L			01/17/18 18:37	10
1,2,4-Trichlorobenzene	ND		10		ug/L			01/17/18 18:37	10
1,2,4-Trimethylbenzene	ND		10		ug/L			01/17/18 18:37	10
1,2-Dibromo-3-Chloropropane	ND		50		ug/L			01/17/18 18:37	10
1,2-Dichlorobenzene	ND		10		ug/L			01/17/18 18:37	10
1,2-Dichloroethane	ND		10		ug/L			01/17/18 18:37	10
1,2-Dichloropropane	ND		10		ug/L			01/17/18 18:37	10
1,3,5-Trimethylbenzene	ND		10		ug/L			01/17/18 18:37	10
1,3-Dichlorobenzene	ND		10		ug/L			01/17/18 18:37	10
1,3-Dichloropropane	ND		10		ug/L			01/17/18 18:37	10
1,4-Dichlorobenzene	ND		10		ug/L			01/17/18 18:37	10
1,4-Dioxane	ND *		500		ug/L			01/17/18 18:37	10
2,2-Dichloropropane	ND		10		ug/L			01/17/18 18:37	10
2-Butanone (MEK)	620 *		100		ug/L			01/17/18 18:37	10
2-Chlorotoluene	ND		10		ug/L			01/17/18 18:37	10
2-Hexanone	ND *		100		ug/L			01/17/18 18:37	10
4-Chlorotoluene	ND		10		ug/L			01/17/18 18:37	10
4-Isopropyltoluene	ND		10		ug/L			01/17/18 18:37	10
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			01/17/18 18:37	10
Acetone	ND		500		ug/L			01/17/18 18:37	10
Benzene	ND		10		ug/L			01/17/18 18:37	10
Bromobenzene	ND		10		ug/L			01/17/18 18:37	10
Bromoform	ND		10		ug/L			01/17/18 18:37	10
Bromomethane	ND		20		ug/L			01/17/18 18:37	10
Carbon disulfide	ND		100		ug/L			01/17/18 18:37	10
Carbon tetrachloride	ND		10		ug/L			01/17/18 18:37	10
Chlorobenzene	ND		10		ug/L			01/17/18 18:37	10
Chlorobromomethane	ND		10		ug/L			01/17/18 18:37	10
Chlorodibromomethane	ND		5.0		ug/L			01/17/18 18:37	10
Chloroethane	ND		20		ug/L			01/17/18 18:37	10
Chloroform	ND		10		ug/L			01/17/18 18:37	10
Chloromethane	ND		20		ug/L			01/17/18 18:37	10
cis-1,2-Dichloroethene	ND		10		ug/L			01/17/18 18:37	10
cis-1,3-Dichloropropene	ND		4.0		ug/L			01/17/18 18:37	10
Dichlorobromomethane	ND		5.0		ug/L			01/17/18 18:37	10
Dichlorodifluoromethane	ND		10		ug/L			01/17/18 18:37	10
Ethyl ether	ND		10		ug/L			01/17/18 18:37	10
Ethylbenzene	ND		10		ug/L			01/17/18 18:37	10
Ethylene Dibromide	ND		10		ug/L			01/17/18 18:37	10
Hexachlorobutadiene	ND		4.0		ug/L			01/17/18 18:37	10
Isopropyl ether	ND		100		ug/L			01/17/18 18:37	10

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: DUP-20180116

Lab Sample ID: 480-130175-6

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		10		ug/L			01/17/18 18:37	10
Methyl tert-butyl ether	ND		10		ug/L			01/17/18 18:37	10
Methylene Chloride	ND		10		ug/L			01/17/18 18:37	10
m-Xylene & p-Xylene	ND		20		ug/L			01/17/18 18:37	10
Naphthalene	ND		50		ug/L			01/17/18 18:37	10
n-Butylbenzene	ND		10		ug/L			01/17/18 18:37	10
N-Propylbenzene	ND		10		ug/L			01/17/18 18:37	10
o-Xylene	ND		10		ug/L			01/17/18 18:37	10
sec-Butylbenzene	ND		10		ug/L			01/17/18 18:37	10
Styrene	ND		10		ug/L			01/17/18 18:37	10
Tert-amyl methyl ether	ND		50		ug/L			01/17/18 18:37	10
Tert-butyl ethyl ether	ND		50		ug/L			01/17/18 18:37	10
tert-Butylbenzene	ND		10		ug/L			01/17/18 18:37	10
Tetrachloroethene	ND		10		ug/L			01/17/18 18:37	10
Tetrahydrofuran	ND		100		ug/L			01/17/18 18:37	10
Toluene	13		10		ug/L			01/17/18 18:37	10
trans-1,2-Dichloroethene	ND		10		ug/L			01/17/18 18:37	10
trans-1,3-Dichloropropene	ND		4.0		ug/L			01/17/18 18:37	10
Trichloroethene	ND		10		ug/L			01/17/18 18:37	10
Trichlorofluoromethane	ND		10		ug/L			01/17/18 18:37	10
Vinyl chloride	ND		10		ug/L			01/17/18 18:37	10
Dibromomethane	ND		10		ug/L			01/17/18 18:37	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	103		70 - 130		01/17/18 18:37	10
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		70 - 130		01/17/18 18:37	10
<i>4-Bromofluorobenzene (Surr)</i>	99		70 - 130		01/17/18 18:37	10

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130175-7

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/17/18 19:03	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/17/18 19:03	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/17/18 19:03	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/17/18 19:03	1
1,1-Dichloroethane	ND		1.0		ug/L			01/17/18 19:03	1
1,1-Dichloroethene	ND		1.0		ug/L			01/17/18 19:03	1
1,1-Dichloropropene	ND		1.0		ug/L			01/17/18 19:03	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/17/18 19:03	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/17/18 19:03	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,2-Dichloroethane	ND		1.0		ug/L			01/17/18 19:03	1
1,2-Dichloropropane	ND		1.0		ug/L			01/17/18 19:03	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/17/18 19:03	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130175-7

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,3-Dichloropropane	ND		1.0		ug/L			01/17/18 19:03	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
1,4-Dioxane	ND	*	50		ug/L			01/17/18 19:03	1
2,2-Dichloropropane	ND		1.0		ug/L			01/17/18 19:03	1
2-Butanone (MEK)	ND	*	10		ug/L			01/17/18 19:03	1
2-Chlorotoluene	ND		1.0		ug/L			01/17/18 19:03	1
2-Hexanone	ND	*	10		ug/L			01/17/18 19:03	1
4-Chlorotoluene	ND		1.0		ug/L			01/17/18 19:03	1
4-Isopropyltoluene	ND		1.0		ug/L			01/17/18 19:03	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/17/18 19:03	1
Acetone	ND		50		ug/L			01/17/18 19:03	1
Benzene	ND		1.0		ug/L			01/17/18 19:03	1
Bromobenzene	ND		1.0		ug/L			01/17/18 19:03	1
Bromoform	ND		1.0		ug/L			01/17/18 19:03	1
Bromomethane	ND		2.0		ug/L			01/17/18 19:03	1
Carbon disulfide	ND		10		ug/L			01/17/18 19:03	1
Carbon tetrachloride	ND		1.0		ug/L			01/17/18 19:03	1
Chlorobenzene	ND		1.0		ug/L			01/17/18 19:03	1
Chlorobromomethane	ND		1.0		ug/L			01/17/18 19:03	1
Chlorodibromomethane	ND		0.50		ug/L			01/17/18 19:03	1
Chloroethane	ND		2.0		ug/L			01/17/18 19:03	1
Chloroform	ND		1.0		ug/L			01/17/18 19:03	1
Chloromethane	ND		2.0		ug/L			01/17/18 19:03	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/17/18 19:03	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/17/18 19:03	1
Dichlorobromomethane	ND		0.50		ug/L			01/17/18 19:03	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/17/18 19:03	1
Ethyl ether	ND		1.0		ug/L			01/17/18 19:03	1
Ethylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
Ethylene Dibromide	ND		1.0		ug/L			01/17/18 19:03	1
Hexachlorobutadiene	ND		0.40		ug/L			01/17/18 19:03	1
Isopropyl ether	ND		10		ug/L			01/17/18 19:03	1
Isopropylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/17/18 19:03	1
Methylene Chloride	ND		1.0		ug/L			01/17/18 19:03	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/17/18 19:03	1
Naphthalene	ND		5.0		ug/L			01/17/18 19:03	1
n-Butylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
N-Propylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
o-Xylene	ND		1.0		ug/L			01/17/18 19:03	1
sec-Butylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
Styrene	ND		1.0		ug/L			01/17/18 19:03	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/17/18 19:03	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/17/18 19:03	1
tert-Butylbenzene	ND		1.0		ug/L			01/17/18 19:03	1
Tetrachloroethene	ND		1.0		ug/L			01/17/18 19:03	1
Tetrahydrofuran	ND		10		ug/L			01/17/18 19:03	1
Toluene	ND		1.0		ug/L			01/17/18 19:03	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130175-7

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/17/18 19:03	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/17/18 19:03	1
Trichloroethene	ND		1.0		ug/L			01/17/18 19:03	1
Trichlorofluoromethane	ND		1.0		ug/L			01/17/18 19:03	1
Vinyl chloride	ND		1.0		ug/L			01/17/18 19:03	1
Dibromomethane	ND		1.0		ug/L			01/17/18 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		01/17/18 19:03	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		01/17/18 19:03	1
4-Bromofluorobenzene (Surr)	100		70 - 130		01/17/18 19:03	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TOL (70-130)	DCA (70-130)	BFB (70-130)
480-130175-1	MW-267S-20180116	105	105	99
480-130175-2	MW-268S-20180116	103	105	99
480-130175-3	MW-268M-20180116	104	102	100
480-130175-4	REW-6-20180116	103	104	98
480-130175-5	REW-11-20180116	103	100	99
480-130175-6	DUP-20180116	103	101	99
480-130175-7	TRIP BLANK	103	103	100
LCS 480-396114/5	Lab Control Sample	106	108	100
LCSD 480-396114/9	Lab Control Sample Dup	105	111	100
MB 480-396114/7	Method Blank	104	109	98

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-396114/7

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/17/18 12:02	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/17/18 12:02	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/17/18 12:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/17/18 12:02	1
1,1-Dichloroethane	ND		1.0		ug/L			01/17/18 12:02	1
1,1-Dichloroethene	ND		1.0		ug/L			01/17/18 12:02	1
1,1-Dichloropropene	ND		1.0		ug/L			01/17/18 12:02	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/17/18 12:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/17/18 12:02	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,2-Dichloroethane	ND		1.0		ug/L			01/17/18 12:02	1
1,2-Dichloropropane	ND		1.0		ug/L			01/17/18 12:02	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,3-Dichloropropane	ND		1.0		ug/L			01/17/18 12:02	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
1,4-Dioxane	ND		50		ug/L			01/17/18 12:02	1
2,2-Dichloropropane	ND		1.0		ug/L			01/17/18 12:02	1
2-Butanone (MEK)	ND		10		ug/L			01/17/18 12:02	1
2-Chlorotoluene	ND		1.0		ug/L			01/17/18 12:02	1
2-Hexanone	ND		10		ug/L			01/17/18 12:02	1
4-Chlorotoluene	ND		1.0		ug/L			01/17/18 12:02	1
4-Isopropyltoluene	ND		1.0		ug/L			01/17/18 12:02	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/17/18 12:02	1
Acetone	ND		50		ug/L			01/17/18 12:02	1
Benzene	ND		1.0		ug/L			01/17/18 12:02	1
Bromobenzene	ND		1.0		ug/L			01/17/18 12:02	1
Bromoform	ND		1.0		ug/L			01/17/18 12:02	1
Bromomethane	ND		2.0		ug/L			01/17/18 12:02	1
Carbon disulfide	ND		10		ug/L			01/17/18 12:02	1
Carbon tetrachloride	ND		1.0		ug/L			01/17/18 12:02	1
Chlorobenzene	ND		1.0		ug/L			01/17/18 12:02	1
Chlorobromomethane	ND		1.0		ug/L			01/17/18 12:02	1
Chlorodibromomethane	ND		0.50		ug/L			01/17/18 12:02	1
Chloroethane	ND		2.0		ug/L			01/17/18 12:02	1
Chloroform	ND		1.0		ug/L			01/17/18 12:02	1
Chloromethane	ND		2.0		ug/L			01/17/18 12:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/17/18 12:02	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/17/18 12:02	1
Dichlorobromomethane	ND		0.50		ug/L			01/17/18 12:02	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/17/18 12:02	1
Ethyl ether	ND		1.0		ug/L			01/17/18 12:02	1
Ethylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
Ethylene Dibromide	ND		1.0		ug/L			01/17/18 12:02	1
Hexachlorobutadiene	0.683		0.40		ug/L			01/17/18 12:02	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-396114/7

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10		ug/L			01/17/18 12:02	1
Isopropylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/17/18 12:02	1
Methylene Chloride	ND		1.0		ug/L			01/17/18 12:02	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/17/18 12:02	1
Naphthalene	ND		5.0		ug/L			01/17/18 12:02	1
n-Butylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
N-Propylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
o-Xylene	ND		1.0		ug/L			01/17/18 12:02	1
sec-Butylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
Styrene	ND		1.0		ug/L			01/17/18 12:02	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/17/18 12:02	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/17/18 12:02	1
tert-Butylbenzene	ND		1.0		ug/L			01/17/18 12:02	1
Tetrachloroethene	ND		1.0		ug/L			01/17/18 12:02	1
Tetrahydrofuran	ND		10		ug/L			01/17/18 12:02	1
Toluene	ND		1.0		ug/L			01/17/18 12:02	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/17/18 12:02	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/17/18 12:02	1
Trichloroethene	ND		1.0		ug/L			01/17/18 12:02	1
Trichlorofluoromethane	ND		1.0		ug/L			01/17/18 12:02	1
Vinyl chloride	ND		1.0		ug/L			01/17/18 12:02	1
Dibromomethane	ND		1.0		ug/L			01/17/18 12:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		70 - 130		01/17/18 12:02	1
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		01/17/18 12:02	1
4-Bromofluorobenzene (Surr)	98		70 - 130		01/17/18 12:02	1

Lab Sample ID: LCS 480-396114/5

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.1		ug/L		105	70 - 130
1,1,2-Trichloroethane	25.0	26.3		ug/L		105	70 - 130
1,1-Dichloroethane	25.0	24.4		ug/L		98	70 - 130
1,1-Dichloroethene	25.0	23.9		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	25.0	26.6		ug/L		106	70 - 130
1,2,3-Trichloropropane	25.0	26.4		ug/L		106	70 - 130
1,2,4-Trichlorobenzene	25.0	26.6		ug/L		106	70 - 130
1,2,4-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.1		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	26.1		ug/L		105	70 - 130
1,2-Dichloroethane	25.0	24.1		ug/L		97	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396114/5

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	24.8		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
1,4-Dioxane	500	680	*	ug/L		136	70 - 130
2,2-Dichloropropane	25.0	24.5		ug/L		98	70 - 130
2-Butanone (MEK)	125	227	*	ug/L		182	70 - 130
2-Chlorotoluene	25.0	28.2		ug/L		113	70 - 130
2-Hexanone	125	198	*	ug/L		159	70 - 130
4-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
4-Isopropyltoluene	25.0	27.1		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	136		ug/L		108	70 - 130
Acetone	125	135		ug/L		108	70 - 130
Benzene	25.0	24.3		ug/L		97	70 - 130
Bromobenzene	25.0	25.5		ug/L		102	70 - 130
Bromoform	25.0	27.2		ug/L		109	70 - 130
Bromomethane	25.0	22.2		ug/L		89	70 - 130
Carbon disulfide	25.0	24.0		ug/L		96	70 - 130
Carbon tetrachloride	25.0	25.7		ug/L		103	70 - 130
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130
Chlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Chlorodibromomethane	25.0	26.4		ug/L		105	70 - 130
Chloroethane	25.0	23.4		ug/L		94	70 - 130
Chloroform	25.0	24.0		ug/L		96	70 - 130
Chloromethane	25.0	23.9		ug/L		95	70 - 130
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130
cis-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 130
Dichlorobromomethane	25.0	24.9		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	25.3		ug/L		101	70 - 130
Ethyl ether	25.0	25.4		ug/L		101	70 - 130
Ethylbenzene	25.0	26.2		ug/L		105	70 - 130
Ethylene Dibromide	25.0	27.0		ug/L		108	70 - 130
Hexachlorobutadiene	25.0	25.2		ug/L		101	70 - 130
Isopropyl ether	25.0	25.7		ug/L		103	70 - 130
Isopropylbenzene	25.0	26.3		ug/L		105	70 - 130
Methyl tert-butyl ether	25.0	24.4		ug/L		97	70 - 130
Methylene Chloride	25.0	22.7		ug/L		91	70 - 130
m-Xylene & p-Xylene	25.0	26.5		ug/L		106	70 - 130
Naphthalene	25.0	27.1		ug/L		108	70 - 130
n-Butylbenzene	25.0	26.4		ug/L		105	70 - 130
N-Propylbenzene	25.0	26.4		ug/L		106	70 - 130
o-Xylene	25.0	26.5		ug/L		106	70 - 130
sec-Butylbenzene	25.0	26.4		ug/L		106	70 - 130
Styrene	25.0	27.1		ug/L		109	70 - 130
Tert-amyl methyl ether	25.0	26.4		ug/L		106	70 - 130
Tert-butyl ethyl ether	25.0	26.1		ug/L		104	70 - 130
tert-Butylbenzene	25.0	25.4		ug/L		102	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396114/5

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	28.8		ug/L		115	70 - 130
Tetrahydrofuran	50.0	50.3		ug/L		101	70 - 130
Toluene	25.0	25.9		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	23.6		ug/L		94	70 - 130
trans-1,3-Dichloropropene	25.0	26.6		ug/L		107	70 - 130
Trichloroethene	25.0	25.0		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	22.7		ug/L		91	70 - 130
Vinyl chloride	25.0	21.2		ug/L		85	70 - 130
Dibromomethane	25.0	25.1		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	106		70 - 130
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 480-396114/9

Matrix: Water

Analysis Batch: 396114

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130	0	20
1,1,1-Trichloroethane	25.0	27.6		ug/L		110	70 - 130	9	20
1,1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	1	20
1,1,1,2-Trichloroethane	25.0	25.7		ug/L		103	70 - 130	2	20
1,1-Dichloroethane	25.0	26.3		ug/L		105	70 - 130	7	20
1,1-Dichloroethene	25.0	26.0		ug/L		104	70 - 130	8	20
1,1-Dichloropropene	25.0	27.4		ug/L		109	70 - 130	10	20
1,2,3-Trichlorobenzene	25.0	27.1		ug/L		109	70 - 130	2	20
1,2,3-Trichloropropane	25.0	27.0		ug/L		108	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	27.3		ug/L		109	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		99	70 - 130	3	20
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130	1	20
1,2-Dichloroethane	25.0	25.2		ug/L		101	70 - 130	4	20
1,2-Dichloropropane	25.0	26.4		ug/L		106	70 - 130	6	20
1,3,5-Trimethylbenzene	25.0	27.1		ug/L		108	70 - 130	4	20
1,3-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	2	20
1,3-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	1	20
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130	2	20
1,4-Dioxane	500	697	*	ug/L		139	70 - 130	2	20
2,2-Dichloropropane	25.0	26.6		ug/L		107	70 - 130	8	20
2-Butanone (MEK)	125	232	*	ug/L		186	70 - 130	2	20
2-Chlorotoluene	25.0	29.4		ug/L		117	70 - 130	4	20
2-Hexanone	125	195	*	ug/L		156	70 - 130	2	20
4-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130	2	20
4-Isopropyltoluene	25.0	28.3		ug/L		113	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	125	133		ug/L		107	70 - 130	2	20
Acetone	125	136		ug/L		109	70 - 130	1	20

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-396114/9

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 396114

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	26.1		ug/L		105	70 - 130	7	20
Bromobenzene	25.0	26.2		ug/L		105	70 - 130	3	20
Bromoform	25.0	27.2		ug/L		109	70 - 130	0	20
Bromomethane	25.0	23.9		ug/L		95	70 - 130	7	20
Carbon disulfide	25.0	26.4		ug/L		105	70 - 130	9	20
Carbon tetrachloride	25.0	28.1		ug/L		113	70 - 130	9	20
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130	3	20
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130	4	20
Chlorodibromomethane	25.0	27.1		ug/L		108	70 - 130	3	20
Chloroethane	25.0	25.1		ug/L		100	70 - 130	7	20
Chloroform	25.0	25.6		ug/L		102	70 - 130	7	20
Chloromethane	25.0	25.9		ug/L		103	70 - 130	8	20
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 130	6	20
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	3	20
Dichlorobromomethane	25.0	26.3		ug/L		105	70 - 130	6	20
Dichlorodifluoromethane	25.0	28.0		ug/L		112	70 - 130	10	20
Ethyl ether	25.0	26.1		ug/L		104	70 - 130	3	20
Ethylbenzene	25.0	27.3		ug/L		109	70 - 130	4	20
Ethylene Dibromide	25.0	26.6		ug/L		106	70 - 130	2	20
Hexachlorobutadiene	25.0	27.3		ug/L		109	70 - 130	8	20
Isopropyl ether	25.0	26.9		ug/L		108	70 - 130	5	20
Isopropylbenzene	25.0	27.6		ug/L		110	70 - 130	5	20
Methyl tert-butyl ether	25.0	25.1		ug/L		100	70 - 130	3	20
Methylene Chloride	25.0	23.5		ug/L		94	70 - 130	3	20
m-Xylene & p-Xylene	25.0	27.1		ug/L		108	70 - 130	2	20
Naphthalene	25.0	27.0		ug/L		108	70 - 130	0	20
n-Butylbenzene	25.0	27.9		ug/L		112	70 - 130	6	20
N-Propylbenzene	25.0	27.6		ug/L		110	70 - 130	4	20
o-Xylene	25.0	27.1		ug/L		108	70 - 130	2	20
sec-Butylbenzene	25.0	27.8		ug/L		111	70 - 130	5	20
Styrene	25.0	27.9		ug/L		111	70 - 130	3	20
Tert-amyl methyl ether	25.0	27.3		ug/L		109	70 - 130	3	20
Tert-butyl ethyl ether	25.0	27.1		ug/L		109	70 - 130	4	20
tert-Butylbenzene	25.0	27.0		ug/L		108	70 - 130	6	20
Tetrachloroethene	25.0	30.8		ug/L		123	70 - 130	7	20
Tetrahydrofuran	50.0	50.7		ug/L		101	70 - 130	1	20
Toluene	25.0	26.7		ug/L		107	70 - 130	3	20
trans-1,2-Dichloroethene	25.0	25.9		ug/L		103	70 - 130	9	20
trans-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 130	0	20
Trichloroethene	25.0	27.0		ug/L		108	70 - 130	8	20
Trichlorofluoromethane	25.0	25.2		ug/L		101	70 - 130	10	20
Vinyl chloride	25.0	23.5		ug/L		94	70 - 130	10	20
Dibromomethane	25.0	25.9		ug/L		104	70 - 130	3	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	105		70 - 130
1,2-Dichloroethane-d4 (Surr)	111		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-396079/1-A
Matrix: Water
Analysis Batch: 396322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		01/17/18 08:48	01/17/18 17:17	1

Lab Sample ID: LCS 480-396079/2-A
Matrix: Water
Analysis Batch: 396322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	10.2		mg/L		102	80 - 120

Lab Sample ID: LCSD 480-396079/25-A
Matrix: Water
Analysis Batch: 396322

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396079

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10.0	9.98		mg/L		100	80 - 120	2	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-396412/5
Matrix: Water
Analysis Batch: 396412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			01/18/18 15:20	1
Sulfate	ND		2.0		mg/L			01/18/18 15:20	1

Lab Sample ID: LCS 480-396412/4
Matrix: Water
Analysis Batch: 396412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Sulfate	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: 480-130175-5 MS
Matrix: Water
Analysis Batch: 396412

Client Sample ID: REW-11-20180116
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		500	581		mg/L		95	81 - 120
Sulfate	ND		500	549		mg/L		110	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-396519/2-A
Matrix: Water
Analysis Batch: 396649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		01/18/18 09:02	01/20/18 11:56	1

Lab Sample ID: LCS 480-396519/1-A
Matrix: Water
Analysis Batch: 396649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.05		mg/L		105	90 - 110

Method: 410.4 - COD

Lab Sample ID: MB 480-396434/27
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			01/18/18 15:15	1

Lab Sample ID: MB 480-396434/3
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			01/18/18 15:15	1

Lab Sample ID: LCS 480-396434/28
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.1		mg/L		92	90 - 110

Lab Sample ID: LCS 480-396434/4
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	25.5		mg/L		102	90 - 110

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-396690/4
Matrix: Water
Analysis Batch: 396690

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0		mg/L			01/21/18 13:06	1
TOC Result 2	ND		1.0		mg/L			01/21/18 13:06	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			01/21/18 13:06	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Lab Sample ID: LCS 480-396690/5
Matrix: Water
Analysis Batch: 396690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	58.1		mg/L		97	90 - 110
TOC Result 2	60.0	59.0		mg/L		98	90 - 110
Total Organic Carbon - Duplicates	60.0	58.5		mg/L		98	90 - 110

Lab Sample ID: MB 480-397090/4
Matrix: Water
Analysis Batch: 397090

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND	^	1.0		mg/L			01/23/18 15:51	1
TOC Result 2	ND		1.0		mg/L			01/23/18 15:51	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			01/23/18 15:51	1

Lab Sample ID: LCS 480-397090/5
Matrix: Water
Analysis Batch: 397090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.5	^	mg/L		96	90 - 110
TOC Result 2	60.0	61.0		mg/L		102	90 - 110
Total Organic Carbon - Duplicates	60.0	59.2		mg/L		99	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-396640/54
Matrix: Water
Analysis Batch: 396640

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			01/19/18 22:24	1

Lab Sample ID: LCS 480-396640/55
Matrix: Water
Analysis Batch: 396640

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	97.2		mg/L		97	90 - 110

Lab Sample ID: MB 480-396753/30
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			01/20/18 15:53	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 480-396753/7
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			01/20/18 12:34	1

Lab Sample ID: LCS 480-396753/31
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	97.3		mg/L		97	90 - 110

Lab Sample ID: LCS 480-396753/8
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	95.8		mg/L		96	90 - 110

Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-396275/3
Matrix: Water
Analysis Batch: 396275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ortho-Phosphate	ND		0.020		mg/L			01/17/18 23:00	1

Lab Sample ID: LCS 480-396275/4
Matrix: Water
Analysis Batch: 396275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.200	0.201		mg/L		101	90 - 110

Lab Sample ID: 480-130175-2 MS
Matrix: Water
Analysis Batch: 396275

Client Sample ID: MW-268S-20180116
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.096		1.00	1.26		mg/L		116	49 - 138

Lab Sample ID: 480-130175-2 MSD
Matrix: Water
Analysis Batch: 396275

Client Sample ID: MW-268S-20180116
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.096		1.00	1.25		mg/L		115	49 - 138	1	20

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

GC/MS VOA

Analysis Batch: 396114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	8260C	
480-130175-2	MW-268S-20180116	Total/NA	Water	8260C	
480-130175-3	MW-268M-20180116	Total/NA	Water	8260C	
480-130175-4	REW-6-20180116	Total/NA	Water	8260C	
480-130175-5	REW-11-20180116	Total/NA	Water	8260C	
480-130175-6	DUP-20180116	Total/NA	Water	8260C	
480-130175-7	TRIP BLANK	Total/NA	Water	8260C	
MB 480-396114/7	Method Blank	Total/NA	Water	8260C	
LCS 480-396114/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-396114/9	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 396079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	3005A	
480-130175-2	MW-268S-20180116	Total/NA	Water	3005A	
480-130175-3	MW-268M-20180116	Total/NA	Water	3005A	
480-130175-4	REW-6-20180116	Total/NA	Water	3005A	
480-130175-5	REW-11-20180116	Total/NA	Water	3005A	
MB 480-396079/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-396079/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-396079/25-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Analysis Batch: 396322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	6010	396079
480-130175-2	MW-268S-20180116	Total/NA	Water	6010	396079
480-130175-3	MW-268M-20180116	Total/NA	Water	6010	396079
480-130175-4	REW-6-20180116	Total/NA	Water	6010	396079
480-130175-5	REW-11-20180116	Total/NA	Water	6010	396079
MB 480-396079/1-A	Method Blank	Total/NA	Water	6010	396079
LCS 480-396079/2-A	Lab Control Sample	Total/NA	Water	6010	396079
LCSD 480-396079/25-A	Lab Control Sample Dup	Total/NA	Water	6010	396079

General Chemistry

Analysis Batch: 396247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	9040C	
480-130175-2	MW-268S-20180116	Total/NA	Water	9040C	
480-130175-3	MW-268M-20180116	Total/NA	Water	9040C	
480-130175-4	REW-6-20180116	Total/NA	Water	9040C	
480-130175-5	REW-11-20180116	Total/NA	Water	9040C	
LCS 480-396247/1	Lab Control Sample	Total/NA	Water	9040C	

Analysis Batch: 396275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	SM 4500 P E	
480-130175-2	MW-268S-20180116	Total/NA	Water	SM 4500 P E	

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

General Chemistry (Continued)

Analysis Batch: 396275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-3	MW-268M-20180116	Total/NA	Water	SM 4500 P E	
480-130175-4	REW-6-20180116	Total/NA	Water	SM 4500 P E	
480-130175-5	REW-11-20180116	Total/NA	Water	SM 4500 P E	
MB 480-396275/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-396275/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-130175-2 MS	MW-268S-20180116	Total/NA	Water	SM 4500 P E	
480-130175-2 MSD	MW-268S-20180116	Total/NA	Water	SM 4500 P E	

Analysis Batch: 396279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	353.2	
480-130175-2	MW-268S-20180116	Total/NA	Water	353.2	
480-130175-3	MW-268M-20180116	Total/NA	Water	353.2	
480-130175-4	REW-6-20180116	Total/NA	Water	353.2	
480-130175-5	REW-11-20180116	Total/NA	Water	353.2	

Analysis Batch: 396412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	300.0	
480-130175-2	MW-268S-20180116	Total/NA	Water	300.0	
480-130175-3	MW-268M-20180116	Total/NA	Water	300.0	
480-130175-4	REW-6-20180116	Total/NA	Water	300.0	
480-130175-5	REW-11-20180116	Total/NA	Water	300.0	
MB 480-396412/5	Method Blank	Total/NA	Water	300.0	
LCS 480-396412/4	Lab Control Sample	Total/NA	Water	300.0	
480-130175-5 MS	REW-11-20180116	Total/NA	Water	300.0	

Analysis Batch: 396434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	410.4	
480-130175-2	MW-268S-20180116	Total/NA	Water	410.4	
480-130175-3	MW-268M-20180116	Total/NA	Water	410.4	
480-130175-4	REW-6-20180116	Total/NA	Water	410.4	
480-130175-5	REW-11-20180116	Total/NA	Water	410.4	
MB 480-396434/27	Method Blank	Total/NA	Water	410.4	
MB 480-396434/3	Method Blank	Total/NA	Water	410.4	
LCS 480-396434/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-396434/4	Lab Control Sample	Total/NA	Water	410.4	

Prep Batch: 396519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	Distill/Ammonia	
480-130175-2	MW-268S-20180116	Total/NA	Water	Distill/Ammonia	
480-130175-3	MW-268M-20180116	Total/NA	Water	Distill/Ammonia	
480-130175-4	REW-6-20180116	Total/NA	Water	Distill/Ammonia	
480-130175-5	REW-11-20180116	Total/NA	Water	Distill/Ammonia	
MB 480-396519/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-396519/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

General Chemistry (Continued)

Analysis Batch: 396640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	SM 2320B	
480-130175-2	MW-268S-20180116	Total/NA	Water	SM 2320B	
480-130175-3	MW-268M-20180116	Total/NA	Water	SM 2320B	
MB 480-396640/54	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-396640/55	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 396649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	350.1	396519
480-130175-2	MW-268S-20180116	Total/NA	Water	350.1	396519
480-130175-3	MW-268M-20180116	Total/NA	Water	350.1	396519
480-130175-4	REW-6-20180116	Total/NA	Water	350.1	396519
480-130175-5	REW-11-20180116	Total/NA	Water	350.1	396519
MB 480-396519/2-A	Method Blank	Total/NA	Water	350.1	396519
LCS 480-396519/1-A	Lab Control Sample	Total/NA	Water	350.1	396519

Analysis Batch: 396690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-1	MW-267S-20180116	Total/NA	Water	9060A	
480-130175-3	MW-268M-20180116	Total/NA	Water	9060A	
480-130175-4	REW-6-20180116	Total/NA	Water	9060A	
480-130175-5	REW-11-20180116	Total/NA	Water	9060A	
MB 480-396690/4	Method Blank	Total/NA	Water	9060A	
LCS 480-396690/5	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 396753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-4	REW-6-20180116	Total/NA	Water	SM 2320B	
480-130175-5	REW-11-20180116	Total/NA	Water	SM 2320B	
MB 480-396753/30	Method Blank	Total/NA	Water	SM 2320B	
MB 480-396753/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-396753/31	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-396753/8	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 397090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130175-2	MW-268S-20180116	Total/NA	Water	9060A	
MB 480-397090/4	Method Blank	Total/NA	Water	9060A	
LCS 480-397090/5	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-267S-20180116

Lab Sample ID: 480-130175-1

Date Collected: 01/16/18 12:30

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	396114	01/17/18 16:31	KMN	TAL BUF
Total/NA	Prep	3005A			396079	01/17/18 08:48	EMB	TAL BUF
Total/NA	Analysis	6010		1	396322	01/17/18 19:11	AMH	TAL BUF
Total/NA	Analysis	300.0		5	396412	01/18/18 17:22	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:08	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396279	01/17/18 15:27	LED	TAL BUF
Total/NA	Analysis	410.4		50	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396247	01/17/18 14:31	DSC	TAL BUF
Total/NA	Analysis	9060A		40	396690	01/21/18 20:58	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396640	01/19/18 23:19	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396275	01/17/18 23:00	LED	TAL BUF

Client Sample ID: MW-268S-20180116

Lab Sample ID: 480-130175-2

Date Collected: 01/16/18 09:10

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	396114	01/17/18 16:56	KMN	TAL BUF
Total/NA	Prep	3005A			396079	01/17/18 08:48	EMB	TAL BUF
Total/NA	Analysis	6010		1	396322	01/17/18 19:18	AMH	TAL BUF
Total/NA	Analysis	300.0		1	396412	01/18/18 17:31	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:09	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396279	01/17/18 15:28	LED	TAL BUF
Total/NA	Analysis	410.4		2	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396247	01/17/18 14:34	DSC	TAL BUF
Total/NA	Analysis	9060A		1	397090	01/24/18 01:15	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396640	01/19/18 23:26	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396275	01/17/18 23:00	LED	TAL BUF

Client Sample ID: MW-268M-20180116

Lab Sample ID: 480-130175-3

Date Collected: 01/16/18 06:55

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	396114	01/17/18 17:21	KMN	TAL BUF
Total/NA	Prep	3005A			396079	01/17/18 08:48	EMB	TAL BUF
Total/NA	Analysis	6010		1	396322	01/17/18 19:22	AMH	TAL BUF
Total/NA	Analysis	300.0		2	396412	01/18/18 17:39	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: MW-268M-20180116

Lab Sample ID: 480-130175-3

Date Collected: 01/16/18 06:55

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	396649	01/20/18 12:09	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396279	01/17/18 15:29	LED	TAL BUF
Total/NA	Analysis	410.4		1	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396247	01/17/18 14:36	DSC	TAL BUF
Total/NA	Analysis	9060A		1	396690	01/21/18 21:54	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396640	01/19/18 23:34	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396275	01/17/18 23:00	LED	TAL BUF

Client Sample ID: REW-6-20180116

Lab Sample ID: 480-130175-4

Date Collected: 01/16/18 11:40

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	396114	01/17/18 17:47	KMN	TAL BUF
Total/NA	Prep	3005A			396079	01/17/18 08:48	EMB	TAL BUF
Total/NA	Analysis	6010		1	396322	01/17/18 19:25	AMH	TAL BUF
Total/NA	Analysis	300.0		10	396412	01/18/18 17:47	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:10	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396279	01/17/18 15:30	LED	TAL BUF
Total/NA	Analysis	410.4		200	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396247	01/17/18 14:39	DSC	TAL BUF
Total/NA	Analysis	9060A		80	396690	01/21/18 22:22	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 13:02	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		2	396275	01/17/18 23:00	LED	TAL BUF

Client Sample ID: REW-11-20180116

Lab Sample ID: 480-130175-5

Date Collected: 01/16/18 10:45

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	396114	01/17/18 18:12	KMN	TAL BUF
Total/NA	Prep	3005A			396079	01/17/18 08:48	EMB	TAL BUF
Total/NA	Analysis	6010		1	396322	01/17/18 19:29	AMH	TAL BUF
Total/NA	Analysis	300.0		10	396412	01/18/18 17:55	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:11	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396279	01/17/18 15:37	LED	TAL BUF
Total/NA	Analysis	410.4		200	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396247	01/17/18 14:28	DSC	TAL BUF
Total/NA	Analysis	9060A		80	396690	01/21/18 22:49	EKB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Client Sample ID: REW-11-20180116

Lab Sample ID: 480-130175-5

Date Collected: 01/16/18 10:45

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 13:14	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		2	396275	01/17/18 23:00	LED	TAL BUF

Client Sample ID: DUP-20180116

Lab Sample ID: 480-130175-6

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	396114	01/17/18 18:37	KMN	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130175-7

Date Collected: 01/16/18 00:00

Matrix: Water

Date Received: 01/17/18 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	396114	01/17/18 19:03	KMN	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-18
California	State Program	9	2931	04-01-18
Connecticut	State Program	1	PH-0568	09-30-18
Florida	NELAP	4	E87672	06-30-18
Georgia	State Program	4	10026 (NY)	03-31-18
Georgia	State Program	4	956	03-31-18
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18 *
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-18
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-18
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-18
Massachusetts	State Program	1	M-NY044	06-30-18
Michigan	State Program	5	9937	03-31-18
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18
New Jersey	NELAP	2	NY455	06-30-18
New York	NELAP	2	10026	03-31-18
North Dakota	State Program	8	R-176	03-31-18
Oklahoma	State Program	6	9421	08-31-18
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-18
Rhode Island	State Program	1	LAO00328	12-30-17 *
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-18
USDA	Federal		P330-11-00386	11-26-17 *
Virginia	NELAP	3	460185	09-14-18
Washington	State Program	10	C784	02-10-18 *
Wisconsin	State Program	5	998310390	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
9040C	pH	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 4500 P E	Orthophosphate	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130175-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-130175-1	MW-267S-20180116	Water	01/16/18 12:30	01/17/18 01:30
480-130175-2	MW-268S-20180116	Water	01/16/18 09:10	01/17/18 01:30
480-130175-3	MW-268M-20180116	Water	01/16/18 06:55	01/17/18 01:30
480-130175-4	REW-6-20180116	Water	01/16/18 11:40	01/17/18 01:30
480-130175-5	REW-11-20180116	Water	01/16/18 10:45	01/17/18 01:30
480-130175-6	DUP-20180116	Water	01/16/18 00:00	01/17/18 01:30
480-130175-7	TRIP BLANK	Water	01/16/18 00:00	01/17/18 01:30

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Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-130175-1

Login Number: 130175

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	IESI
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Client Information: Client Contact: <u>Vicki Paragon</u> Company: <u>Innovative Engineering Solutions Inc</u> Address: <u>25 Spring St</u> City: <u>Windsor</u> State and Zip: <u>MA 02081</u> Client's Phone: <u>508-668-0033</u> Client's Contact Email: <u>vparagon@iesonline.com</u> Client's Project Name/Number: <u>Reservoir water lead RA-008</u> Sample Collection Site Name & Location: <u>Windsor MA</u>		Lab Pmt: E-Mail: Sample Collector's Name (Please Print Neatly): <u>Dawn Davis</u> Sample Collector's Phone: <u>508-401-3196</u>	
Due Date Requested: <u>11/24/18</u> Turnaround Time (TAT) Requested (business days): <u>5 days</u>		Analysis Required: 8960 MCP 9060A TOR 6010 MCP Total Iron 3501 NH3 / NH4 COD 300A 830 803 / CR / 8960A PH 3320B Alkalinity 4500-PH ORPH for water Cl- 353-B HOB	
Sample Collection Date (MM/DD/YY) 11/16/18 11/16/18 11/16/18 11/16/18 11/16/18 11/16/18		Sample Collection Time (24 Hour Clock) 1230 0910 0755 1140 1045 -	
Sample Type: C=Comp G=Grab C C C C C C		Matrix Type ** W W W W W W	
Sample Identification MW-2675 - 20180116 MW-2675 - 20180116 MW-268M - 20180116 RW-6 - 20180116 RW-11 - 20180116 Dup - 20180116 Trip Blank		Preservation Codes → A X X X X X X	
Possible Hazard Identification (please check off each that may apply): <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month): <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Requisitioned by: <u>[Signature]</u> Requisitioned by: <u>[Signature]</u> Requisitioned by: <u>[Signature]</u>		Received by: <u>Test America</u> Date/Time: <u>11-16-18 1330</u> Date/Time: <u>11-16-18 1100</u> Date/Time: <u>11-17-18 0130</u>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: 2.8 #1	

COC No: <u>37444</u>	Page: <u>1</u> of <u>1</u>	Job #:
Preservation Codes: A - Hydrochloric Acid B - Sodium Hydroxide C - Zinc Acetate D - Nitric Acid E - Sodium Bisulfite F - Methanol H - Ascorbic Acid J - Deionized Water M - Hexane N - No Preservative P - Sodium Sulfate Q - Sodium Sulfite R - Sodium Thiosulfate S - Sulfuric Acid Z - other (Specify)		
Regulatory Programs: MCP <input type="checkbox"/> GW/IS1 <input type="checkbox"/> RCP <input type="checkbox"/> CT RSR <input type="checkbox"/> DEP Form <input type="checkbox"/> EDD Required <input type="checkbox"/> eDEP Filing <input type="checkbox"/> NPDES <input type="checkbox"/>		
SUBCONTRACT POLICY: Unless you provide in-advance to permit TestAmerica to use certified instructions to the contrary, or subcontract labs, without specifying which sub-contract any additional notification labs are or are not to be made by us, as necessary used, you agree in to fulfill your work order.		
Special Instructions & Notes: CW-3 requirements		
Total Number of Containers (enter total for each line)	↓	
	10	
	10	
	10	
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	10	
	3	
	2	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-130240-1
Client Project/Site: IDS Wayland

For:
Innovative Engineering Solutions, Inc
25 Spring Street
Walpole, Massachusetts 02081

Attn: Vicki Pariyar



Authorized for release by:
1/25/2018 4:27:25 PM

Becky Mason, Project Manager II
(413)572-4000
becky.mason@testamericainc.com

LINKS

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results through
TotalAccess

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Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Job ID: 480-130240-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-130240-1

Receipt

The samples were received on 1/18/2018 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

GC/MS VOA

Method 8260C: With the exception of diluted samples, per question G on the MassDEP Analytical Protocol Certification Form, TestAmerica's routine reporting limits do not achieve the CAM reporting limits specified in this CAM protocol for 1,2-dibromo-3-chloropropane, Carbon Disulfide, Isopropyl Ether, Naphthalene, tert-Amyl Methyl Ether and Tetrahydrofuran.

Method 8260C: Due to the dilutions required, per question G on the MassDEP Analytical Protocol Certification Form, the CAM reporting limits specified in this CAM protocol could not be achieved for some or all samples/analytes.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396313 exceeded control limits for the following analytes: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : MW-563-20180117 (480-130240-3), REW-7-20180117 (480-130240-4), REW-12-20180117 (480-130240-5) and TRIP BLANK (480-130240-6).

Method 8260C: The continuing calibration verification (CCV) for 1,4-Dioxane associated with batch 480-396313 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following samples were affected : MW-563-20180117 (480-130240-3), REW-7-20180117 (480-130240-4), REW-12-20180117 (480-130240-5) and TRIP BLANK (480-130240-6).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396313 exceeded control limits for the following analyte: 2-Butanone and 2-Hexanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following samples were affected: MW-563-20180117 (480-130240-3), REW-7-20180117 (480-130240-4), REW-12-20180117 (480-130240-5) and TRIP BLANK (480-130240-6).

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: REW-12-20180117 (480-130240-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-562-20180117 (480-130240-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for Acetone and 1,4-Dioxane associated with batch 480-396532 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following sample was affected : MW-562-20180117 (480-130240-2)

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-396532 exceeded control limits for the following analytes: 2-Butanone and 2-Hexanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was affected : MW-562-20180117 (480-130240-2).

Method 8260C: The laboratory control sample (LCS) and/ or the laboratory control sample duplicate (LCSD) for batch 480-396532 exceeded control limits for the following analytes: Acetone and 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following sample was affected : MW-562-20180117 (480-130240-2)

Case Narrative

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Job ID: 480-130240-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method 8260C: The method blank for analytical batch 480-396532 contained Hexachlorobutadiene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of sample was not performed. The following sample is impacted: MW-562-20180117 (480-130240-2).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396842 exceeded control limits for the following analytes: Acetone. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following sample was affected : MW-265M-20180117 (480-130240-1).

Method 8260C: The continuing calibration verification (CCV) for sec-Butylbenzene, Acetone, 4-Isopropyltoluene, n-Butylbenzene, Dichlorodifluoromethane, 1,4-Dioxane and Hexachlorobutadiene associated with batch 480-396842 recovered outside the MCP control limit criteria. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. Difficult analytes are allowed to be outside the 20% difference but not over 60% difference. The following sample was affected : MW-265M-20180117 (480-130240-1).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-396842 exceeded control limits for the following analyte: 2-Butanone and 2-Hexanone. Unlike the calibration tandards, this is due to the coelution with Ethyl Acetate and n-butyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was affected: MW-265M-20180117 (480-130240-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

Method 300.0: The following sample was reported with elevated reporting limits for all analytes: MW-265M-20180117 (480-130240-1). The sample was analyzed at a dilution based on screening results.

Method 300.0: The following samples were diluted due to the nature of the sample matrix: MW-562-20180117 (480-130240-2) and REW-12-20180117 (480-130240-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010: At the request of the client, an abbreviated MCP analyte list was reported for this job.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 353.2: The following samples were filtered prior to analysis. MW-265M-20180117 (480-130240-1), MW-562-20180117 (480-130240-2), MW-563-20180117 (480-130240-3), REW-7-20180117 (480-130240-4) and REW-12-20180117 (480-130240-5)

Method 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-265M-20180117 (480-130240-1), MW-562-20180117 (480-130240-2), MW-563-20180117 (480-130240-3), REW-7-20180117 (480-130240-4) and REW-12-20180117 (480-130240-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-130240-1**

Project Location: **IDS Wayland** RTN:

This form provides certifications for the data set for the following Laboratory Sample ID Number(s):
480-130240-1[1-6]

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocols (check all that apply below):

8260 VOC CAM II A <input checked="" type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	Mass DEP VPH CAM IV A <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	Mass DEP APH CAM IX A <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	Mass DEP EPH CAM IV B <input type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>
6010 Metals CAM III A <input checked="" type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9012 / 9014/ 4500CN Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding time.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	a. VPH, EPH and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WCS-07-350

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No ¹

¹ All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature:  Position: Project Manager
 Printed Name: Becky Mason Date: 1/25/18 16:25

This form has been electronically signed and approved

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-265M-20180117

Lab Sample ID: 480-130240-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.8		1.0		ug/L	1		8260C	Total/NA
Ethylbenzene	4.8		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	19		2.0		ug/L	1		8260C	Total/NA
o-Xylene	5.6		1.0		ug/L	1		8260C	Total/NA
Tetrahydrofuran	20		10		ug/L	1		8260C	Total/NA
Toluene	2.1		1.0		ug/L	1		8260C	Total/NA
Iron	270		0.050		mg/L	1		6010	Total/NA
Chloride	25		2.5		mg/L	5		300.0	Total/NA
Ammonia	3.4		0.40		mg/L	2		350.1	Total/NA
Chemical Oxygen Demand	69		10		mg/L	1		410.4	Total/NA
TOC Result 1	7.4		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	7.7		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	7.5		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	910		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	0.1		SU	1		9040C	Total/NA
Temperature	19.9	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: MW-562-20180117

Lab Sample ID: 480-130240-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	310	*	100		ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	4.1		4.0		ug/L	2		8260C	Total/NA
Toluene	9.2		2.0		ug/L	2		8260C	Total/NA
Iron	130		0.050		mg/L	1		6010	Total/NA
Chloride	17		1.0		mg/L	2		300.0	Total/NA
Ammonia	2.0		0.20		mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	180		20		mg/L	2		410.4	Total/NA
TOC Result 1	78	F1	1.0		mg/L	1		9060A	Total/NA
TOC Result 2	80		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	79		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	330		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.74		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.5	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.3	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: MW-563-20180117

Lab Sample ID: 480-130240-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	14		0.050		mg/L	1		6010	Total/NA
Chloride	14		0.50		mg/L	1		300.0	Total/NA
Ammonia	0.58		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	1.1		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	1.7		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	1.4		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	140		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.5	HF	0.001		Degrees C	1		9040C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-7-20180117

Lab Sample ID: 480-130240-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	3.5		0.050		mg/L	1		6010	Total/NA
Chloride	9.5		0.50		mg/L	1		300.0	Total/NA
Sulfate	11		2.0		mg/L	1		300.0	Total/NA
Ammonia	1.9		0.20		mg/L	1		350.1	Total/NA
TOC Result 2	1.1		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	1.0		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	100		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.15		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.4	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.7	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: REW-12-20180117

Lab Sample ID: 480-130240-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	83		0.050		mg/L	1		6010	Total/NA
Chloride	33		2.5		mg/L	5		300.0	Total/NA
Ammonia	11		2.0		mg/L	10		350.1	Total/NA
Chemical Oxygen Demand	290		20		mg/L	2		410.4	Total/NA
TOC Result 1	110		2.0		mg/L	2		9060A	Total/NA
TOC Result 2	110		2.0		mg/L	2		9060A	Total/NA
Total Organic Carbon - Duplicates	110		2.0		mg/L	2		9060A	Total/NA
Alkalinity, Total	280		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.25		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.7	HF	0.1		SU	1		9040C	Total/NA
Temperature	20.5	HF	0.001		Degrees C	1		9040C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130240-6

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-265M-20180117

Lab Sample ID: 480-130240-1

Date Collected: 01/17/18 10:50

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/23/18 12:27	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/23/18 12:27	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/23/18 12:27	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/23/18 12:27	1
1,1-Dichloroethane	ND		1.0		ug/L			01/23/18 12:27	1
1,1-Dichloroethene	ND		1.0		ug/L			01/23/18 12:27	1
1,1-Dichloropropene	ND		1.0		ug/L			01/23/18 12:27	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/23/18 12:27	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/23/18 12:27	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,2-Dichloroethane	ND		1.0		ug/L			01/23/18 12:27	1
1,2-Dichloropropane	ND		1.0		ug/L			01/23/18 12:27	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,3-Dichloropropane	ND		1.0		ug/L			01/23/18 12:27	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
1,4-Dioxane	ND		50		ug/L			01/23/18 12:27	1
2,2-Dichloropropane	ND		1.0		ug/L			01/23/18 12:27	1
2-Butanone (MEK)	ND	*	10		ug/L			01/23/18 12:27	1
2-Chlorotoluene	ND		1.0		ug/L			01/23/18 12:27	1
2-Hexanone	ND	*	10		ug/L			01/23/18 12:27	1
4-Chlorotoluene	ND		1.0		ug/L			01/23/18 12:27	1
4-Isopropyltoluene	ND		1.0		ug/L			01/23/18 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/23/18 12:27	1
Acetone	ND	*	50		ug/L			01/23/18 12:27	1
Benzene	ND		1.0		ug/L			01/23/18 12:27	1
Bromobenzene	ND		1.0		ug/L			01/23/18 12:27	1
Bromoform	ND		1.0		ug/L			01/23/18 12:27	1
Bromomethane	ND		2.0		ug/L			01/23/18 12:27	1
Carbon disulfide	ND		10		ug/L			01/23/18 12:27	1
Carbon tetrachloride	ND		1.0		ug/L			01/23/18 12:27	1
Chlorobenzene	ND		1.0		ug/L			01/23/18 12:27	1
Chlorobromomethane	ND		1.0		ug/L			01/23/18 12:27	1
Chlorodibromomethane	ND		0.50		ug/L			01/23/18 12:27	1
Chloroethane	ND		2.0		ug/L			01/23/18 12:27	1
Chloroform	ND		1.0		ug/L			01/23/18 12:27	1
Chloromethane	ND		2.0		ug/L			01/23/18 12:27	1
cis-1,2-Dichloroethene	3.8		1.0		ug/L			01/23/18 12:27	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/23/18 12:27	1
Dichlorobromomethane	ND		0.50		ug/L			01/23/18 12:27	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/23/18 12:27	1
Ethyl ether	ND		1.0		ug/L			01/23/18 12:27	1
Ethylbenzene	4.8		1.0		ug/L			01/23/18 12:27	1
Ethylene Dibromide	ND		1.0		ug/L			01/23/18 12:27	1
Hexachlorobutadiene	ND		0.40		ug/L			01/23/18 12:27	1
Isopropyl ether	ND		10		ug/L			01/23/18 12:27	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-265M-20180117

Lab Sample ID: 480-130240-1

Date Collected: 01/17/18 10:50

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/23/18 12:27	1
Methylene Chloride	ND		1.0		ug/L			01/23/18 12:27	1
m-Xylene & p-Xylene	19		2.0		ug/L			01/23/18 12:27	1
Naphthalene	ND		5.0		ug/L			01/23/18 12:27	1
n-Butylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
N-Propylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
o-Xylene	5.6		1.0		ug/L			01/23/18 12:27	1
sec-Butylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
Styrene	ND		1.0		ug/L			01/23/18 12:27	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/23/18 12:27	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/23/18 12:27	1
tert-Butylbenzene	ND		1.0		ug/L			01/23/18 12:27	1
Tetrachloroethene	ND		1.0		ug/L			01/23/18 12:27	1
Tetrahydrofuran	20		10		ug/L			01/23/18 12:27	1
Toluene	2.1		1.0		ug/L			01/23/18 12:27	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/23/18 12:27	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/23/18 12:27	1
Trichloroethene	ND		1.0		ug/L			01/23/18 12:27	1
Trichlorofluoromethane	ND		1.0		ug/L			01/23/18 12:27	1
Vinyl chloride	ND		1.0		ug/L			01/23/18 12:27	1
Dibromomethane	ND		1.0		ug/L			01/23/18 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		01/23/18 12:27	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/23/18 12:27	1
4-Bromofluorobenzene (Surr)	103		70 - 130		01/23/18 12:27	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	270		0.050		mg/L		01/18/18 08:20	01/18/18 23:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.5		mg/L			01/18/18 20:38	5
Sulfate	ND		10		mg/L			01/18/18 20:38	5
Ammonia	3.4		0.40		mg/L		01/18/18 09:02	01/20/18 12:37	2
Nitrate as N	ND		0.050		mg/L			01/18/18 15:21	1
Chemical Oxygen Demand	69		10		mg/L			01/18/18 15:15	1
TOC Result 1	7.4		1.0		mg/L			01/22/18 01:06	1
TOC Result 2	7.7		1.0		mg/L			01/22/18 01:06	1
Total Organic Carbon - Duplicates	7.5		1.0		mg/L			01/22/18 01:06	1
Alkalinity, Total	910		5.0		mg/L			01/20/18 16:12	1
ortho-Phosphate	ND		0.020		mg/L			01/18/18 12:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1		SU			01/18/18 14:13	1
Temperature	19.9	HF	0.001		Degrees C			01/18/18 14:13	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-562-20180117

Lab Sample ID: 480-130240-2

Date Collected: 01/17/18 10:05

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			01/19/18 13:50	2
1,1,1-Trichloroethane	ND		2.0		ug/L			01/19/18 13:50	2
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/19/18 13:50	2
1,1,2-Trichloroethane	ND		2.0		ug/L			01/19/18 13:50	2
1,1-Dichloroethane	ND		2.0		ug/L			01/19/18 13:50	2
1,1-Dichloroethene	ND		2.0		ug/L			01/19/18 13:50	2
1,1-Dichloropropene	ND		2.0		ug/L			01/19/18 13:50	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,2,3-Trichloropropane	ND		2.0		ug/L			01/19/18 13:50	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,2,4-Trimethylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			01/19/18 13:50	2
1,2-Dichlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,2-Dichloroethane	ND		2.0		ug/L			01/19/18 13:50	2
1,2-Dichloropropane	ND		2.0		ug/L			01/19/18 13:50	2
1,3,5-Trimethylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,3-Dichlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,3-Dichloropropane	ND		2.0		ug/L			01/19/18 13:50	2
1,4-Dichlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
1,4-Dioxane	ND *		100		ug/L			01/19/18 13:50	2
2,2-Dichloropropane	ND		2.0		ug/L			01/19/18 13:50	2
2-Butanone (MEK)	ND *		20		ug/L			01/19/18 13:50	2
2-Chlorotoluene	ND		2.0		ug/L			01/19/18 13:50	2
2-Hexanone	ND *		20		ug/L			01/19/18 13:50	2
4-Chlorotoluene	ND		2.0		ug/L			01/19/18 13:50	2
4-Isopropyltoluene	ND		2.0		ug/L			01/19/18 13:50	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			01/19/18 13:50	2
Acetone	310 *		100		ug/L			01/19/18 13:50	2
Benzene	ND		2.0		ug/L			01/19/18 13:50	2
Bromobenzene	ND		2.0		ug/L			01/19/18 13:50	2
Bromoform	ND		2.0		ug/L			01/19/18 13:50	2
Bromomethane	ND		4.0		ug/L			01/19/18 13:50	2
Carbon disulfide	ND		20		ug/L			01/19/18 13:50	2
Carbon tetrachloride	ND		2.0		ug/L			01/19/18 13:50	2
Chlorobenzene	ND		2.0		ug/L			01/19/18 13:50	2
Chlorobromomethane	ND		2.0		ug/L			01/19/18 13:50	2
Chlorodibromomethane	ND		1.0		ug/L			01/19/18 13:50	2
Chloroethane	ND		4.0		ug/L			01/19/18 13:50	2
Chloroform	ND		2.0		ug/L			01/19/18 13:50	2
Chloromethane	ND		4.0		ug/L			01/19/18 13:50	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			01/19/18 13:50	2
cis-1,3-Dichloropropene	ND		0.80		ug/L			01/19/18 13:50	2
Dichlorobromomethane	ND		1.0		ug/L			01/19/18 13:50	2
Dichlorodifluoromethane	ND		2.0		ug/L			01/19/18 13:50	2
Ethyl ether	ND		2.0		ug/L			01/19/18 13:50	2
Ethylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
Ethylene Dibromide	ND		2.0		ug/L			01/19/18 13:50	2
Hexachlorobutadiene	ND		0.80		ug/L			01/19/18 13:50	2
Isopropyl ether	ND		20		ug/L			01/19/18 13:50	2

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-562-20180117

Lab Sample ID: 480-130240-2

Date Collected: 01/17/18 10:05

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
Methyl tert-butyl ether	ND		2.0		ug/L			01/19/18 13:50	2
Methylene Chloride	ND		2.0		ug/L			01/19/18 13:50	2
m-Xylene & p-Xylene	4.1		4.0		ug/L			01/19/18 13:50	2
Naphthalene	ND		10		ug/L			01/19/18 13:50	2
n-Butylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
N-Propylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
o-Xylene	ND		2.0		ug/L			01/19/18 13:50	2
sec-Butylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
Styrene	ND		2.0		ug/L			01/19/18 13:50	2
Tert-amyl methyl ether	ND		10		ug/L			01/19/18 13:50	2
Tert-butyl ethyl ether	ND		10		ug/L			01/19/18 13:50	2
tert-Butylbenzene	ND		2.0		ug/L			01/19/18 13:50	2
Tetrachloroethene	ND		2.0		ug/L			01/19/18 13:50	2
Tetrahydrofuran	ND		20		ug/L			01/19/18 13:50	2
Toluene	9.2		2.0		ug/L			01/19/18 13:50	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			01/19/18 13:50	2
trans-1,3-Dichloropropene	ND		0.80		ug/L			01/19/18 13:50	2
Trichloroethene	ND		2.0		ug/L			01/19/18 13:50	2
Trichlorofluoromethane	ND		2.0		ug/L			01/19/18 13:50	2
Vinyl chloride	ND		2.0		ug/L			01/19/18 13:50	2
Dibromomethane	ND		2.0		ug/L			01/19/18 13:50	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		70 - 130		01/19/18 13:50	2
1,2-Dichloroethane-d4 (Surr)	85		70 - 130		01/19/18 13:50	2
4-Bromofluorobenzene (Surr)	110		70 - 130		01/19/18 13:50	2

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	130		0.050		mg/L		01/18/18 08:20	01/18/18 23:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		1.0		mg/L			01/18/18 20:46	2
Sulfate	ND		4.0		mg/L			01/18/18 20:46	2
Ammonia	2.0		0.20		mg/L		01/18/18 09:02	01/20/18 12:01	1
Nitrate as N	ND		0.050		mg/L			01/18/18 15:22	1
Chemical Oxygen Demand	180		20		mg/L			01/22/18 16:30	2
TOC Result 1	78	F1	1.0		mg/L			01/22/18 02:01	1
TOC Result 2	80		1.0		mg/L			01/22/18 02:01	1
Total Organic Carbon - Duplicates	79		1.0		mg/L			01/22/18 02:01	1
Alkalinity, Total	330		5.0		mg/L			01/20/18 16:19	1
ortho-Phosphate	0.74		0.020		mg/L			01/18/18 12:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.5	HF	0.1		SU			01/18/18 14:20	1
Temperature	20.3	HF	0.001		Degrees C			01/18/18 14:20	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-563-20180117

Lab Sample ID: 480-130240-3

Date Collected: 01/17/18 12:35

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/18/18 17:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/18/18 17:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/18 17:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/18/18 17:36	1
1,1-Dichloroethane	ND		1.0		ug/L			01/18/18 17:36	1
1,1-Dichloroethene	ND		1.0		ug/L			01/18/18 17:36	1
1,1-Dichloropropene	ND		1.0		ug/L			01/18/18 17:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/18/18 17:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/18 17:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,2-Dichloroethane	ND		1.0		ug/L			01/18/18 17:36	1
1,2-Dichloropropane	ND		1.0		ug/L			01/18/18 17:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,3-Dichloropropane	ND		1.0		ug/L			01/18/18 17:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
1,4-Dioxane	ND *		50		ug/L			01/18/18 17:36	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/18 17:36	1
2-Butanone (MEK)	ND *		10		ug/L			01/18/18 17:36	1
2-Chlorotoluene	ND		1.0		ug/L			01/18/18 17:36	1
2-Hexanone	ND *		10		ug/L			01/18/18 17:36	1
4-Chlorotoluene	ND		1.0		ug/L			01/18/18 17:36	1
4-Isopropyltoluene	ND		1.0		ug/L			01/18/18 17:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/18/18 17:36	1
Acetone	ND		50		ug/L			01/18/18 17:36	1
Benzene	ND		1.0		ug/L			01/18/18 17:36	1
Bromobenzene	ND		1.0		ug/L			01/18/18 17:36	1
Bromoform	ND		1.0		ug/L			01/18/18 17:36	1
Bromomethane	ND		2.0		ug/L			01/18/18 17:36	1
Carbon disulfide	ND		10		ug/L			01/18/18 17:36	1
Carbon tetrachloride	ND		1.0		ug/L			01/18/18 17:36	1
Chlorobenzene	ND		1.0		ug/L			01/18/18 17:36	1
Chlorobromomethane	ND		1.0		ug/L			01/18/18 17:36	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/18 17:36	1
Chloroethane	ND		2.0		ug/L			01/18/18 17:36	1
Chloroform	ND		1.0		ug/L			01/18/18 17:36	1
Chloromethane	ND		2.0		ug/L			01/18/18 17:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 17:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 17:36	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/18 17:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/18/18 17:36	1
Ethyl ether	ND		1.0		ug/L			01/18/18 17:36	1
Ethylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
Ethylene Dibromide	ND		1.0		ug/L			01/18/18 17:36	1
Hexachlorobutadiene	ND		0.40		ug/L			01/18/18 17:36	1
Isopropyl ether	ND		10		ug/L			01/18/18 17:36	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-563-20180117

Lab Sample ID: 480-130240-3

Date Collected: 01/17/18 12:35

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/18/18 17:36	1
Methylene Chloride	ND		1.0		ug/L			01/18/18 17:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/18/18 17:36	1
Naphthalene	ND		5.0		ug/L			01/18/18 17:36	1
n-Butylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
N-Propylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
o-Xylene	ND		1.0		ug/L			01/18/18 17:36	1
sec-Butylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
Styrene	ND		1.0		ug/L			01/18/18 17:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/18/18 17:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/18/18 17:36	1
tert-Butylbenzene	ND		1.0		ug/L			01/18/18 17:36	1
Tetrachloroethene	ND		1.0		ug/L			01/18/18 17:36	1
Tetrahydrofuran	ND		10		ug/L			01/18/18 17:36	1
Toluene	ND		1.0		ug/L			01/18/18 17:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 17:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 17:36	1
Trichloroethene	ND		1.0		ug/L			01/18/18 17:36	1
Trichlorofluoromethane	ND		1.0		ug/L			01/18/18 17:36	1
Vinyl chloride	ND		1.0		ug/L			01/18/18 17:36	1
Dibromomethane	ND		1.0		ug/L			01/18/18 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/18/18 17:36	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		01/18/18 17:36	1
4-Bromofluorobenzene (Surr)	103		70 - 130		01/18/18 17:36	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	14		0.050		mg/L		01/18/18 08:20	01/18/18 23:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		0.50		mg/L			01/18/18 20:54	1
Sulfate	ND		2.0		mg/L			01/18/18 20:54	1
Ammonia	0.58		0.20		mg/L		01/18/18 09:02	01/20/18 12:02	1
Nitrate as N	ND		0.050		mg/L			01/18/18 15:27	1
Chemical Oxygen Demand	ND		10		mg/L			01/18/18 15:15	1
TOC Result 1	1.1		1.0		mg/L			01/22/18 02:57	1
TOC Result 2	1.7		1.0		mg/L			01/22/18 02:57	1
Total Organic Carbon - Duplicates	1.4		1.0		mg/L			01/22/18 02:57	1
Alkalinity, Total	140		5.0		mg/L			01/20/18 16:27	1
ortho-Phosphate	ND		0.020		mg/L			01/18/18 12:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2	HF	0.1		SU			01/18/18 14:23	1
Temperature	20.5	HF	0.001		Degrees C			01/18/18 14:23	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-7-20180117

Lab Sample ID: 480-130240-4

Date Collected: 01/17/18 13:25

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/18/18 18:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/18/18 18:01	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/18 18:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/18/18 18:01	1
1,1-Dichloroethane	ND		1.0		ug/L			01/18/18 18:01	1
1,1-Dichloroethene	ND		1.0		ug/L			01/18/18 18:01	1
1,1-Dichloropropene	ND		1.0		ug/L			01/18/18 18:01	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/18/18 18:01	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/18 18:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,2-Dichloroethane	ND		1.0		ug/L			01/18/18 18:01	1
1,2-Dichloropropane	ND		1.0		ug/L			01/18/18 18:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,3-Dichloropropane	ND		1.0		ug/L			01/18/18 18:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
1,4-Dioxane	ND *		50		ug/L			01/18/18 18:01	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/18 18:01	1
2-Butanone (MEK)	ND *		10		ug/L			01/18/18 18:01	1
2-Chlorotoluene	ND		1.0		ug/L			01/18/18 18:01	1
2-Hexanone	ND *		10		ug/L			01/18/18 18:01	1
4-Chlorotoluene	ND		1.0		ug/L			01/18/18 18:01	1
4-Isopropyltoluene	ND		1.0		ug/L			01/18/18 18:01	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/18/18 18:01	1
Acetone	ND		50		ug/L			01/18/18 18:01	1
Benzene	ND		1.0		ug/L			01/18/18 18:01	1
Bromobenzene	ND		1.0		ug/L			01/18/18 18:01	1
Bromoform	ND		1.0		ug/L			01/18/18 18:01	1
Bromomethane	ND		2.0		ug/L			01/18/18 18:01	1
Carbon disulfide	ND		10		ug/L			01/18/18 18:01	1
Carbon tetrachloride	ND		1.0		ug/L			01/18/18 18:01	1
Chlorobenzene	ND		1.0		ug/L			01/18/18 18:01	1
Chlorobromomethane	ND		1.0		ug/L			01/18/18 18:01	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/18 18:01	1
Chloroethane	ND		2.0		ug/L			01/18/18 18:01	1
Chloroform	ND		1.0		ug/L			01/18/18 18:01	1
Chloromethane	ND		2.0		ug/L			01/18/18 18:01	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 18:01	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 18:01	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/18 18:01	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/18/18 18:01	1
Ethyl ether	ND		1.0		ug/L			01/18/18 18:01	1
Ethylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
Ethylene Dibromide	ND		1.0		ug/L			01/18/18 18:01	1
Hexachlorobutadiene	ND		0.40		ug/L			01/18/18 18:01	1
Isopropyl ether	ND		10		ug/L			01/18/18 18:01	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-7-20180117

Lab Sample ID: 480-130240-4

Date Collected: 01/17/18 13:25

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/18/18 18:01	1
Methylene Chloride	ND		1.0		ug/L			01/18/18 18:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/18/18 18:01	1
Naphthalene	ND		5.0		ug/L			01/18/18 18:01	1
n-Butylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
N-Propylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
o-Xylene	ND		1.0		ug/L			01/18/18 18:01	1
sec-Butylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
Styrene	ND		1.0		ug/L			01/18/18 18:01	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/18/18 18:01	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/18/18 18:01	1
tert-Butylbenzene	ND		1.0		ug/L			01/18/18 18:01	1
Tetrachloroethene	ND		1.0		ug/L			01/18/18 18:01	1
Tetrahydrofuran	ND		10		ug/L			01/18/18 18:01	1
Toluene	ND		1.0		ug/L			01/18/18 18:01	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 18:01	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 18:01	1
Trichloroethene	ND		1.0		ug/L			01/18/18 18:01	1
Trichlorofluoromethane	ND		1.0		ug/L			01/18/18 18:01	1
Vinyl chloride	ND		1.0		ug/L			01/18/18 18:01	1
Dibromomethane	ND		1.0		ug/L			01/18/18 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/18/18 18:01	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		01/18/18 18:01	1
4-Bromofluorobenzene (Surr)	102		70 - 130		01/18/18 18:01	1

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	3.5		0.050		mg/L		01/18/18 08:20	01/18/18 23:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.5		0.50		mg/L			01/18/18 21:02	1
Sulfate	11		2.0		mg/L			01/18/18 21:02	1
Ammonia	1.9		0.20		mg/L		01/18/18 09:02	01/20/18 12:03	1
Nitrate as N	ND		0.050		mg/L			01/18/18 15:28	1
Chemical Oxygen Demand	ND		10		mg/L			01/18/18 15:15	1
TOC Result 1	ND		1.0		mg/L			01/22/18 03:25	1
TOC Result 2	1.1		1.0		mg/L			01/22/18 03:25	1
Total Organic Carbon - Duplicates	1.0		1.0		mg/L			01/22/18 03:25	1
Alkalinity, Total	100		5.0		mg/L			01/20/18 16:34	1
ortho-Phosphate	0.15		0.020		mg/L			01/18/18 12:55	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.4	HF	0.1		SU			01/18/18 14:26	1
Temperature	20.7	HF	0.001		Degrees C			01/18/18 14:26	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-12-20180117

Lab Sample ID: 480-130240-5

Date Collected: 01/17/18 11:45

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40		ug/L			01/18/18 18:27	40
1,1,1-Trichloroethane	ND		40		ug/L			01/18/18 18:27	40
1,1,2,2-Tetrachloroethane	ND		20		ug/L			01/18/18 18:27	40
1,1,2-Trichloroethane	ND		40		ug/L			01/18/18 18:27	40
1,1-Dichloroethane	ND		40		ug/L			01/18/18 18:27	40
1,1-Dichloroethene	ND		40		ug/L			01/18/18 18:27	40
1,1-Dichloropropene	ND		40		ug/L			01/18/18 18:27	40
1,2,3-Trichlorobenzene	ND		40		ug/L			01/18/18 18:27	40
1,2,3-Trichloropropane	ND		40		ug/L			01/18/18 18:27	40
1,2,4-Trichlorobenzene	ND		40		ug/L			01/18/18 18:27	40
1,2,4-Trimethylbenzene	ND		40		ug/L			01/18/18 18:27	40
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			01/18/18 18:27	40
1,2-Dichlorobenzene	ND		40		ug/L			01/18/18 18:27	40
1,2-Dichloroethane	ND		40		ug/L			01/18/18 18:27	40
1,2-Dichloropropane	ND		40		ug/L			01/18/18 18:27	40
1,3,5-Trimethylbenzene	ND		40		ug/L			01/18/18 18:27	40
1,3-Dichlorobenzene	ND		40		ug/L			01/18/18 18:27	40
1,3-Dichloropropane	ND		40		ug/L			01/18/18 18:27	40
1,4-Dichlorobenzene	ND		40		ug/L			01/18/18 18:27	40
1,4-Dioxane	ND *		2000		ug/L			01/18/18 18:27	40
2,2-Dichloropropane	ND		40		ug/L			01/18/18 18:27	40
2-Butanone (MEK)	ND *		400		ug/L			01/18/18 18:27	40
2-Chlorotoluene	ND		40		ug/L			01/18/18 18:27	40
2-Hexanone	ND *		400		ug/L			01/18/18 18:27	40
4-Chlorotoluene	ND		40		ug/L			01/18/18 18:27	40
4-Isopropyltoluene	ND		40		ug/L			01/18/18 18:27	40
4-Methyl-2-pentanone (MIBK)	ND		400		ug/L			01/18/18 18:27	40
Acetone	ND		2000		ug/L			01/18/18 18:27	40
Benzene	ND		40		ug/L			01/18/18 18:27	40
Bromobenzene	ND		40		ug/L			01/18/18 18:27	40
Bromoform	ND		40		ug/L			01/18/18 18:27	40
Bromomethane	ND		80		ug/L			01/18/18 18:27	40
Carbon disulfide	ND		400		ug/L			01/18/18 18:27	40
Carbon tetrachloride	ND		40		ug/L			01/18/18 18:27	40
Chlorobenzene	ND		40		ug/L			01/18/18 18:27	40
Chlorobromomethane	ND		40		ug/L			01/18/18 18:27	40
Chlorodibromomethane	ND		20		ug/L			01/18/18 18:27	40
Chloroethane	ND		80		ug/L			01/18/18 18:27	40
Chloroform	ND		40		ug/L			01/18/18 18:27	40
Chloromethane	ND		80		ug/L			01/18/18 18:27	40
cis-1,2-Dichloroethene	ND		40		ug/L			01/18/18 18:27	40
cis-1,3-Dichloropropene	ND		16		ug/L			01/18/18 18:27	40
Dichlorobromomethane	ND		20		ug/L			01/18/18 18:27	40
Dichlorodifluoromethane	ND		40		ug/L			01/18/18 18:27	40
Ethyl ether	ND		40		ug/L			01/18/18 18:27	40
Ethylbenzene	ND		40		ug/L			01/18/18 18:27	40
Ethylene Dibromide	ND		40		ug/L			01/18/18 18:27	40
Hexachlorobutadiene	ND		16		ug/L			01/18/18 18:27	40
Isopropyl ether	ND		400		ug/L			01/18/18 18:27	40

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-12-20180117

Lab Sample ID: 480-130240-5

Date Collected: 01/17/18 11:45

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		40		ug/L			01/18/18 18:27	40
Methyl tert-butyl ether	ND		40		ug/L			01/18/18 18:27	40
Methylene Chloride	ND		40		ug/L			01/18/18 18:27	40
m-Xylene & p-Xylene	ND		80		ug/L			01/18/18 18:27	40
Naphthalene	ND		200		ug/L			01/18/18 18:27	40
n-Butylbenzene	ND		40		ug/L			01/18/18 18:27	40
N-Propylbenzene	ND		40		ug/L			01/18/18 18:27	40
o-Xylene	ND		40		ug/L			01/18/18 18:27	40
sec-Butylbenzene	ND		40		ug/L			01/18/18 18:27	40
Styrene	ND		40		ug/L			01/18/18 18:27	40
Tert-amyl methyl ether	ND		200		ug/L			01/18/18 18:27	40
Tert-butyl ethyl ether	ND		200		ug/L			01/18/18 18:27	40
tert-Butylbenzene	ND		40		ug/L			01/18/18 18:27	40
Tetrachloroethene	ND		40		ug/L			01/18/18 18:27	40
Tetrahydrofuran	ND		400		ug/L			01/18/18 18:27	40
Toluene	ND		40		ug/L			01/18/18 18:27	40
trans-1,2-Dichloroethene	ND		40		ug/L			01/18/18 18:27	40
trans-1,3-Dichloropropene	ND		16		ug/L			01/18/18 18:27	40
Trichloroethene	ND		40		ug/L			01/18/18 18:27	40
Trichlorofluoromethane	ND		40		ug/L			01/18/18 18:27	40
Vinyl chloride	ND		40		ug/L			01/18/18 18:27	40
Dibromomethane	ND		40		ug/L			01/18/18 18:27	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/18/18 18:27	40
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		01/18/18 18:27	40
4-Bromofluorobenzene (Surr)	105		70 - 130		01/18/18 18:27	40

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	83		0.050		mg/L		01/18/18 08:20	01/18/18 23:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33		2.5		mg/L			01/18/18 21:10	5
Sulfate	ND		10		mg/L			01/18/18 21:10	5
Ammonia	11		2.0		mg/L		01/18/18 09:02	01/20/18 12:37	10
Nitrate as N	ND		0.050		mg/L			01/18/18 15:29	1
Chemical Oxygen Demand	290		20		mg/L			01/24/18 16:30	2
TOC Result 1	110		2.0		mg/L			01/24/18 01:45	2
TOC Result 2	110		2.0		mg/L			01/24/18 01:45	2
Total Organic Carbon - Duplicates	110		2.0		mg/L			01/24/18 01:45	2
Alkalinity, Total	280		5.0		mg/L			01/20/18 16:41	1
ortho-Phosphate	0.25		0.020		mg/L			01/18/18 12:55	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.7	HF	0.1		SU			01/18/18 14:29	1
Temperature	20.5	HF	0.001		Degrees C			01/18/18 14:29	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130240-6

Date Collected: 01/17/18 00:00

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/18/18 18:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/18/18 18:52	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/18 18:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/18/18 18:52	1
1,1-Dichloroethane	ND		1.0		ug/L			01/18/18 18:52	1
1,1-Dichloroethene	ND		1.0		ug/L			01/18/18 18:52	1
1,1-Dichloropropene	ND		1.0		ug/L			01/18/18 18:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/18/18 18:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/18 18:52	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,2-Dichloroethane	ND		1.0		ug/L			01/18/18 18:52	1
1,2-Dichloropropane	ND		1.0		ug/L			01/18/18 18:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,3-Dichloropropane	ND		1.0		ug/L			01/18/18 18:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
1,4-Dioxane	ND *		50		ug/L			01/18/18 18:52	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/18 18:52	1
2-Butanone (MEK)	ND *		10		ug/L			01/18/18 18:52	1
2-Chlorotoluene	ND		1.0		ug/L			01/18/18 18:52	1
2-Hexanone	ND *		10		ug/L			01/18/18 18:52	1
4-Chlorotoluene	ND		1.0		ug/L			01/18/18 18:52	1
4-Isopropyltoluene	ND		1.0		ug/L			01/18/18 18:52	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/18/18 18:52	1
Acetone	ND		50		ug/L			01/18/18 18:52	1
Benzene	ND		1.0		ug/L			01/18/18 18:52	1
Bromobenzene	ND		1.0		ug/L			01/18/18 18:52	1
Bromoform	ND		1.0		ug/L			01/18/18 18:52	1
Bromomethane	ND		2.0		ug/L			01/18/18 18:52	1
Carbon disulfide	ND		10		ug/L			01/18/18 18:52	1
Carbon tetrachloride	ND		1.0		ug/L			01/18/18 18:52	1
Chlorobenzene	ND		1.0		ug/L			01/18/18 18:52	1
Chlorobromomethane	ND		1.0		ug/L			01/18/18 18:52	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/18 18:52	1
Chloroethane	ND		2.0		ug/L			01/18/18 18:52	1
Chloroform	ND		1.0		ug/L			01/18/18 18:52	1
Chloromethane	ND		2.0		ug/L			01/18/18 18:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 18:52	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 18:52	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/18 18:52	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/18/18 18:52	1
Ethyl ether	ND		1.0		ug/L			01/18/18 18:52	1
Ethylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
Ethylene Dibromide	ND		1.0		ug/L			01/18/18 18:52	1
Hexachlorobutadiene	ND		0.40		ug/L			01/18/18 18:52	1
Isopropyl ether	ND		10		ug/L			01/18/18 18:52	1

TestAmerica Buffalo

Client Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130240-6

Date Collected: 01/17/18 00:00

Matrix: Water

Date Received: 01/18/18 01:00

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/18/18 18:52	1
Methylene Chloride	ND		1.0		ug/L			01/18/18 18:52	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/18/18 18:52	1
Naphthalene	ND		5.0		ug/L			01/18/18 18:52	1
n-Butylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
N-Propylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
o-Xylene	ND		1.0		ug/L			01/18/18 18:52	1
sec-Butylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
Styrene	ND		1.0		ug/L			01/18/18 18:52	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/18/18 18:52	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/18/18 18:52	1
tert-Butylbenzene	ND		1.0		ug/L			01/18/18 18:52	1
Tetrachloroethene	ND		1.0		ug/L			01/18/18 18:52	1
Tetrahydrofuran	ND		10		ug/L			01/18/18 18:52	1
Toluene	ND		1.0		ug/L			01/18/18 18:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 18:52	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 18:52	1
Trichloroethene	ND		1.0		ug/L			01/18/18 18:52	1
Trichlorofluoromethane	ND		1.0		ug/L			01/18/18 18:52	1
Vinyl chloride	ND		1.0		ug/L			01/18/18 18:52	1
Dibromomethane	ND		1.0		ug/L			01/18/18 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/18/18 18:52	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		01/18/18 18:52	1
4-Bromofluorobenzene (Surr)	105		70 - 130		01/18/18 18:52	1

Surrogate Summary

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	DCA (70-130)	BFB (70-130)
480-130240-1	MW-265M-20180117	101	99	103
480-130240-2	MW-562-20180117	94	85	110
480-130240-3	MW-563-20180117	99	99	103
480-130240-4	REW-7-20180117	99	96	102
480-130240-5	REW-12-20180117	99	94	105
480-130240-6	TRIP BLANK	99	95	105
LCS 480-396313/5	Lab Control Sample	100	101	103
LCS 480-396532/5	Lab Control Sample	95	89	109
LCS 480-396842/5	Lab Control Sample	102	101	104
LCSD 480-396313/6	Lab Control Sample Dup	100	100	103
LCSD 480-396532/9	Lab Control Sample Dup	95	87	110
LCSD 480-396842/6	Lab Control Sample Dup	102	103	104
MB 480-396313/34	Method Blank	99	98	102
MB 480-396532/7	Method Blank	96	86	109
MB 480-396842/8	Method Blank	103	98	106

Surrogate Legend

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-396313/34

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/18/18 12:41	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/18/18 12:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/18/18 12:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/18/18 12:41	1
1,1-Dichloroethane	ND		1.0		ug/L			01/18/18 12:41	1
1,1-Dichloroethene	ND		1.0		ug/L			01/18/18 12:41	1
1,1-Dichloropropene	ND		1.0		ug/L			01/18/18 12:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/18/18 12:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/18/18 12:41	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,2-Dichloroethane	ND		1.0		ug/L			01/18/18 12:41	1
1,2-Dichloropropane	ND		1.0		ug/L			01/18/18 12:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,3-Dichloropropane	ND		1.0		ug/L			01/18/18 12:41	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
1,4-Dioxane	ND		50		ug/L			01/18/18 12:41	1
2,2-Dichloropropane	ND		1.0		ug/L			01/18/18 12:41	1
2-Butanone (MEK)	ND		10		ug/L			01/18/18 12:41	1
2-Chlorotoluene	ND		1.0		ug/L			01/18/18 12:41	1
2-Hexanone	ND		10		ug/L			01/18/18 12:41	1
4-Chlorotoluene	ND		1.0		ug/L			01/18/18 12:41	1
4-Isopropyltoluene	ND		1.0		ug/L			01/18/18 12:41	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/18/18 12:41	1
Acetone	ND		50		ug/L			01/18/18 12:41	1
Benzene	ND		1.0		ug/L			01/18/18 12:41	1
Bromobenzene	ND		1.0		ug/L			01/18/18 12:41	1
Bromoform	ND		1.0		ug/L			01/18/18 12:41	1
Bromomethane	ND		2.0		ug/L			01/18/18 12:41	1
Carbon disulfide	ND		10		ug/L			01/18/18 12:41	1
Carbon tetrachloride	ND		1.0		ug/L			01/18/18 12:41	1
Chlorobenzene	ND		1.0		ug/L			01/18/18 12:41	1
Chlorobromomethane	ND		1.0		ug/L			01/18/18 12:41	1
Chlorodibromomethane	ND		0.50		ug/L			01/18/18 12:41	1
Chloroethane	ND		2.0		ug/L			01/18/18 12:41	1
Chloroform	ND		1.0		ug/L			01/18/18 12:41	1
Chloromethane	ND		2.0		ug/L			01/18/18 12:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 12:41	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 12:41	1
Dichlorobromomethane	ND		0.50		ug/L			01/18/18 12:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/18/18 12:41	1
Ethyl ether	ND		1.0		ug/L			01/18/18 12:41	1
Ethylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
Ethylene Dibromide	ND		1.0		ug/L			01/18/18 12:41	1
Hexachlorobutadiene	ND		0.40		ug/L			01/18/18 12:41	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-396313/34

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl ether	ND		10		ug/L			01/18/18 12:41	1
Isopropylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/18/18 12:41	1
Methylene Chloride	ND		1.0		ug/L			01/18/18 12:41	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/18/18 12:41	1
Naphthalene	ND		5.0		ug/L			01/18/18 12:41	1
n-Butylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
N-Propylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
o-Xylene	ND		1.0		ug/L			01/18/18 12:41	1
sec-Butylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
Styrene	ND		1.0		ug/L			01/18/18 12:41	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/18/18 12:41	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/18/18 12:41	1
tert-Butylbenzene	ND		1.0		ug/L			01/18/18 12:41	1
Tetrachloroethene	ND		1.0		ug/L			01/18/18 12:41	1
Tetrahydrofuran	ND		10		ug/L			01/18/18 12:41	1
Toluene	ND		1.0		ug/L			01/18/18 12:41	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/18/18 12:41	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/18/18 12:41	1
Trichloroethene	ND		1.0		ug/L			01/18/18 12:41	1
Trichlorofluoromethane	ND		1.0		ug/L			01/18/18 12:41	1
Vinyl chloride	ND		1.0		ug/L			01/18/18 12:41	1
Dibromomethane	ND		1.0		ug/L			01/18/18 12:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		01/18/18 12:41	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		01/18/18 12:41	1
4-Bromofluorobenzene (Surr)	102		70 - 130		01/18/18 12:41	1

Lab Sample ID: LCS 480-396313/5

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		106	70 - 130
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	70 - 130
1,1-Dichloroethane	25.0	24.5		ug/L		98	70 - 130
1,1-Dichloroethane	25.0	23.2		ug/L		93	70 - 130
1,1-Dichloropropene	25.0	25.1		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	27.1		ug/L		108	70 - 130
1,2,3-Trichloropropane	25.0	27.2		ug/L		109	70 - 130
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	25.0	26.5		ug/L		106	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	24.4		ug/L		97	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396313/5

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,3-Dichloropropane	25.0	26.6		ug/L		106	70 - 130
1,4-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130
1,4-Dioxane	500	686	*	ug/L		137	70 - 130
2,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
2-Butanone (MEK)	125	237	*	ug/L		189	70 - 130
2-Chlorotoluene	25.0	28.2		ug/L		113	70 - 130
2-Hexanone	125	202	*	ug/L		161	70 - 130
4-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130
4-Isopropyltoluene	25.0	27.3		ug/L		109	70 - 130
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		110	70 - 130
Acetone	125	133		ug/L		107	70 - 130
Benzene	25.0	24.6		ug/L		98	70 - 130
Bromobenzene	25.0	25.9		ug/L		104	70 - 130
Bromoform	25.0	26.8		ug/L		107	70 - 130
Bromomethane	25.0	23.1		ug/L		93	70 - 130
Carbon disulfide	25.0	23.7		ug/L		95	70 - 130
Carbon tetrachloride	25.0	25.7		ug/L		103	70 - 130
Chlorobenzene	25.0	25.9		ug/L		104	70 - 130
Chlorobromomethane	25.0	25.5		ug/L		102	70 - 130
Chlorodibromomethane	25.0	26.5		ug/L		106	70 - 130
Chloroethane	25.0	23.6		ug/L		94	70 - 130
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	24.1		ug/L		97	70 - 130
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130
Dichlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	25.6		ug/L		102	70 - 130
Ethyl ether	25.0	25.7		ug/L		103	70 - 130
Ethylbenzene	25.0	26.7		ug/L		107	70 - 130
Ethylene Dibromide	25.0	27.5		ug/L		110	70 - 130
Hexachlorobutadiene	25.0	26.2		ug/L		105	70 - 130
Isopropyl ether	25.0	27.2		ug/L		109	70 - 130
Isopropylbenzene	25.0	26.6		ug/L		107	70 - 130
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130
Methylene Chloride	25.0	22.6		ug/L		90	70 - 130
m-Xylene & p-Xylene	25.0	26.6		ug/L		106	70 - 130
Naphthalene	25.0	27.1		ug/L		108	70 - 130
n-Butylbenzene	25.0	26.9		ug/L		108	70 - 130
N-Propylbenzene	25.0	26.8		ug/L		107	70 - 130
o-Xylene	25.0	26.8		ug/L		107	70 - 130
sec-Butylbenzene	25.0	26.8		ug/L		107	70 - 130
Styrene	25.0	27.3		ug/L		109	70 - 130
Tert-amyl methyl ether	25.0	28.0		ug/L		112	70 - 130
Tert-butyl ethyl ether	25.0	27.5		ug/L		110	70 - 130
tert-Butylbenzene	25.0	26.4		ug/L		105	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396313/5

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	28.7		ug/L		115	70 - 130
Tetrahydrofuran	50.0	50.4		ug/L		101	70 - 130
Toluene	25.0	26.1		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 130
Trichloroethene	25.0	25.1		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	23.7		ug/L		95	70 - 130
Vinyl chloride	25.0	22.2		ug/L		89	70 - 130
Dibromomethane	25.0	25.8		ug/L		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 480-396313/6

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	27.7		ug/L		111	70 - 130	4	20
1,1,1-Trichloroethane	25.0	27.0		ug/L		108	70 - 130	6	20
1,1,1,2,2-Tetrachloroethane	25.0	27.1		ug/L		109	70 - 130	2	20
1,1,1,2-Trichloroethane	25.0	27.1		ug/L		108	70 - 130	3	20
1,1-Dichloroethane	25.0	26.0		ug/L		104	70 - 130	6	20
1,1-Dichloroethene	25.0	25.1		ug/L		101	70 - 130	8	20
1,1-Dichloropropene	25.0	27.5		ug/L		110	70 - 130	9	20
1,2,3-Trichlorobenzene	25.0	28.3		ug/L		113	70 - 130	4	20
1,2,3-Trichloropropane	25.0	28.0		ug/L		112	70 - 130	3	20
1,2,4-Trichlorobenzene	25.0	28.8		ug/L		115	70 - 130	6	20
1,2,4-Trimethylbenzene	25.0	28.2		ug/L		113	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		97	70 - 130	0	20
1,2-Dichlorobenzene	25.0	27.5		ug/L		110	70 - 130	4	20
1,2-Dichloroethane	25.0	24.7		ug/L		99	70 - 130	1	20
1,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	6	20
1,3-Dichlorobenzene	25.0	27.8		ug/L		111	70 - 130	6	20
1,3-Dichloropropane	25.0	27.0		ug/L		108	70 - 130	2	20
1,4-Dichlorobenzene	25.0	28.0		ug/L		112	70 - 130	4	20
1,4-Dioxane	500	715	*	ug/L		143	70 - 130	4	20
2,2-Dichloropropane	25.0	26.6		ug/L		106	70 - 130	6	20
2-Butanone (MEK)	125	234	*	ug/L		188	70 - 130	1	20
2-Chlorotoluene	25.0	30.7		ug/L		123	70 - 130	8	20
2-Hexanone	125	202	*	ug/L		162	70 - 130	0	20
4-Chlorotoluene	25.0	28.4		ug/L		114	70 - 130	5	20
4-Isopropyltoluene	25.0	29.6		ug/L		119	70 - 130	8	20
4-Methyl-2-pentanone (MIBK)	125	137		ug/L		110	70 - 130	0	20
Acetone	125	132		ug/L		106	70 - 130	1	20

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-396313/6

Matrix: Water

Analysis Batch: 396313

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
							RPD	Limit		
Benzene	25.0	26.1		ug/L		105	70 - 130	6	20	
Bromobenzene	25.0	27.4		ug/L		110	70 - 130	6	20	
Bromoform	25.0	26.8		ug/L		107	70 - 130	0	20	
Bromomethane	25.0	24.4		ug/L		97	70 - 130	5	20	
Carbon disulfide	25.0	25.5		ug/L		102	70 - 130	7	20	
Carbon tetrachloride	25.0	27.7		ug/L		111	70 - 130	7	20	
Chlorobenzene	25.0	27.6		ug/L		110	70 - 130	6	20	
Chlorobromomethane	25.0	25.7		ug/L		103	70 - 130	1	20	
Chlorodibromomethane	25.0	27.6		ug/L		110	70 - 130	4	20	
Chloroethane	25.0	25.8		ug/L		103	70 - 130	9	20	
Chloroform	25.0	25.2		ug/L		101	70 - 130	5	20	
Chloromethane	25.0	26.2		ug/L		105	70 - 130	8	20	
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130	5	20	
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130	4	20	
Dichlorobromomethane	25.0	25.6		ug/L		103	70 - 130	2	20	
Dichlorodifluoromethane	25.0	28.1		ug/L		112	70 - 130	9	20	
Ethyl ether	25.0	26.2		ug/L		105	70 - 130	2	20	
Ethylbenzene	25.0	28.5		ug/L		114	70 - 130	6	20	
Ethylene Dibromide	25.0	27.6		ug/L		110	70 - 130	0	20	
Hexachlorobutadiene	25.0	29.0		ug/L		116	70 - 130	10	20	
Isopropyl ether	25.0	27.7		ug/L		111	70 - 130	2	20	
Isopropylbenzene	25.0	28.8		ug/L		115	70 - 130	8	20	
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130	0	20	
Methylene Chloride	25.0	23.2		ug/L		93	70 - 130	3	20	
m-Xylene & p-Xylene	25.0	28.4		ug/L		114	70 - 130	7	20	
Naphthalene	25.0	27.7		ug/L		111	70 - 130	2	20	
n-Butylbenzene	25.0	29.5		ug/L		118	70 - 130	9	20	
N-Propylbenzene	25.0	28.9		ug/L		116	70 - 130	8	20	
o-Xylene	25.0	28.3		ug/L		113	70 - 130	5	20	
sec-Butylbenzene	25.0	29.3		ug/L		117	70 - 130	9	20	
Styrene	25.0	28.8		ug/L		115	70 - 130	5	20	
Tert-amyl methyl ether	25.0	28.1		ug/L		112	70 - 130	0	20	
Tert-butyl ethyl ether	25.0	28.0		ug/L		112	70 - 130	2	20	
tert-Butylbenzene	25.0	28.4		ug/L		114	70 - 130	8	20	
Tetrachloroethene	25.0	31.5		ug/L		126	70 - 130	9	20	
Tetrahydrofuran	50.0	50.1		ug/L		100	70 - 130	0	20	
Toluene	25.0	28.1		ug/L		112	70 - 130	7	20	
trans-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130	8	20	
trans-1,3-Dichloropropene	25.0	27.6		ug/L		110	70 - 130	4	20	
Trichloroethene	25.0	26.9		ug/L		108	70 - 130	7	20	
Trichlorofluoromethane	25.0	26.2		ug/L		105	70 - 130	10	20	
Vinyl chloride	25.0	24.3		ug/L		97	70 - 130	9	20	
Dibromomethane	25.0	25.7		ug/L		103	70 - 130	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Lab Sample ID: MB 480-396532/7

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/19/18 12:39	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/19/18 12:39	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/19/18 12:39	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/19/18 12:39	1
1,1-Dichloroethane	ND		1.0		ug/L			01/19/18 12:39	1
1,1-Dichloroethene	ND		1.0		ug/L			01/19/18 12:39	1
1,1-Dichloropropene	ND		1.0		ug/L			01/19/18 12:39	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/19/18 12:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/19/18 12:39	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,2-Dichloroethane	ND		1.0		ug/L			01/19/18 12:39	1
1,2-Dichloropropane	ND		1.0		ug/L			01/19/18 12:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,3-Dichloropropane	ND		1.0		ug/L			01/19/18 12:39	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
1,4-Dioxane	ND		50		ug/L			01/19/18 12:39	1
2,2-Dichloropropane	ND		1.0		ug/L			01/19/18 12:39	1
2-Butanone (MEK)	ND		10		ug/L			01/19/18 12:39	1
2-Chlorotoluene	ND		1.0		ug/L			01/19/18 12:39	1
2-Hexanone	ND		10		ug/L			01/19/18 12:39	1
4-Chlorotoluene	ND		1.0		ug/L			01/19/18 12:39	1
4-Isopropyltoluene	ND		1.0		ug/L			01/19/18 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/19/18 12:39	1
Acetone	ND		50		ug/L			01/19/18 12:39	1
Benzene	ND		1.0		ug/L			01/19/18 12:39	1
Bromobenzene	ND		1.0		ug/L			01/19/18 12:39	1
Bromoform	ND		1.0		ug/L			01/19/18 12:39	1
Bromomethane	ND		2.0		ug/L			01/19/18 12:39	1
Carbon disulfide	ND		10		ug/L			01/19/18 12:39	1
Carbon tetrachloride	ND		1.0		ug/L			01/19/18 12:39	1
Chlorobenzene	ND		1.0		ug/L			01/19/18 12:39	1
Chlorobromomethane	ND		1.0		ug/L			01/19/18 12:39	1
Chlorodibromomethane	ND		0.50		ug/L			01/19/18 12:39	1
Chloroethane	ND		2.0		ug/L			01/19/18 12:39	1
Chloroform	ND		1.0		ug/L			01/19/18 12:39	1
Chloromethane	ND		2.0		ug/L			01/19/18 12:39	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/19/18 12:39	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/19/18 12:39	1
Dichlorobromomethane	ND		0.50		ug/L			01/19/18 12:39	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/19/18 12:39	1
Ethyl ether	ND		1.0		ug/L			01/19/18 12:39	1
Ethylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
Ethylene Dibromide	ND		1.0		ug/L			01/19/18 12:39	1
Hexachlorobutadiene	0.638		0.40		ug/L			01/19/18 12:39	1
Isopropyl ether	ND		10		ug/L			01/19/18 12:39	1
Isopropylbenzene	ND		1.0		ug/L			01/19/18 12:39	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-396532/7

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			01/19/18 12:39	1
Methylene Chloride	ND		1.0		ug/L			01/19/18 12:39	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/19/18 12:39	1
Naphthalene	ND		5.0		ug/L			01/19/18 12:39	1
n-Butylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
N-Propylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
o-Xylene	ND		1.0		ug/L			01/19/18 12:39	1
sec-Butylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
Styrene	ND		1.0		ug/L			01/19/18 12:39	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/19/18 12:39	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/19/18 12:39	1
tert-Butylbenzene	ND		1.0		ug/L			01/19/18 12:39	1
Tetrachloroethene	ND		1.0		ug/L			01/19/18 12:39	1
Tetrahydrofuran	ND		10		ug/L			01/19/18 12:39	1
Toluene	ND		1.0		ug/L			01/19/18 12:39	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/19/18 12:39	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/19/18 12:39	1
Trichloroethene	ND		1.0		ug/L			01/19/18 12:39	1
Trichlorofluoromethane	ND		1.0		ug/L			01/19/18 12:39	1
Vinyl chloride	ND		1.0		ug/L			01/19/18 12:39	1
Dibromomethane	ND		1.0		ug/L			01/19/18 12:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130		01/19/18 12:39	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 130		01/19/18 12:39	1
4-Bromofluorobenzene (Surr)	109		70 - 130		01/19/18 12:39	1

Lab Sample ID: LCS 480-396532/5

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.4		ug/L		102	70 - 130
1,1,1-Trichloroethane	25.0	24.6		ug/L		98	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130
1,1-Dichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloroethene	25.0	22.3		ug/L		89	70 - 130
1,1-Dichloropropene	25.0	23.9		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		103	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	23.3		ug/L		93	70 - 130
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	22.6		ug/L		91	70 - 130
1,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396532/5

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
1,4-Dioxane	500	635		ug/L		127	70 - 130
2,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 130
2-Butanone (MEK)	125	204	*	ug/L		164	70 - 130
2-Chlorotoluene	25.0	28.6		ug/L		114	70 - 130
2-Hexanone	125	176	*	ug/L		141	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
4-Isopropyltoluene	25.0	27.1		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		101	70 - 130
Acetone	125	86.8	*	ug/L		69	70 - 130
Benzene	25.0	23.5		ug/L		94	70 - 130
Bromobenzene	25.0	25.2		ug/L		101	70 - 130
Bromoform	25.0	25.4		ug/L		102	70 - 130
Bromomethane	25.0	22.8		ug/L		91	70 - 130
Carbon disulfide	25.0	23.1		ug/L		92	70 - 130
Carbon tetrachloride	25.0	24.2		ug/L		97	70 - 130
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130
Chlorobromomethane	25.0	23.7		ug/L		95	70 - 130
Chlorodibromomethane	25.0	25.4		ug/L		101	70 - 130
Chloroethane	25.0	24.3		ug/L		97	70 - 130
Chloroform	25.0	22.8		ug/L		91	70 - 130
Chloromethane	25.0	24.2		ug/L		97	70 - 130
cis-1,2-Dichloroethene	25.0	23.2		ug/L		93	70 - 130
cis-1,3-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
Dichlorobromomethane	25.0	23.7		ug/L		95	70 - 130
Dichlorodifluoromethane	25.0	23.2		ug/L		93	70 - 130
Ethyl ether	25.0	24.0		ug/L		96	70 - 130
Ethylbenzene	25.0	25.8		ug/L		103	70 - 130
Ethylene Dibromide	25.0	25.2		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	25.8		ug/L		103	70 - 130
Isopropyl ether	25.0	27.0		ug/L		108	70 - 130
Isopropylbenzene	25.0	26.2		ug/L		105	70 - 130
Methyl tert-butyl ether	25.0	23.5		ug/L		94	70 - 130
Methylene Chloride	25.0	22.2		ug/L		89	70 - 130
m-Xylene & p-Xylene	25.0	25.5		ug/L		102	70 - 130
Naphthalene	25.0	25.9		ug/L		103	70 - 130
n-Butylbenzene	25.0	26.4		ug/L		106	70 - 130
N-Propylbenzene	25.0	26.1		ug/L		104	70 - 130
o-Xylene	25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 130
Styrene	25.0	26.2		ug/L		105	70 - 130
Tert-amyl methyl ether	25.0	27.6		ug/L		110	70 - 130
Tert-butyl ethyl ether	25.0	27.6		ug/L		110	70 - 130
tert-Butylbenzene	25.0	25.6		ug/L		103	70 - 130
Tetrachloroethene	25.0	27.8		ug/L		111	70 - 130
Tetrahydrofuran	50.0	46.8		ug/L		94	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396532/5

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	25.0	25.3		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	22.6		ug/L		90	70 - 130
trans-1,3-Dichloropropene	25.0	25.6		ug/L		103	70 - 130
Trichloroethene	25.0	24.0		ug/L		96	70 - 130
Trichlorofluoromethane	25.0	23.3		ug/L		93	70 - 130
Vinyl chloride	25.0	22.5		ug/L		90	70 - 130
Dibromomethane	25.0	23.7		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	89		70 - 130
4-Bromofluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 480-396532/9

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	2	20
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	70 - 130	3	20
1,1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 130	1	20
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130	1	20
1,1-Dichloroethane	25.0	24.2		ug/L		97	70 - 130	2	20
1,1-Dichloroethene	25.0	23.5		ug/L		94	70 - 130	6	20
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130	3	20
1,2,3-Trichlorobenzene	25.0	26.9		ug/L		108	70 - 130	1	20
1,2,3-Trichloropropane	25.0	25.1		ug/L		100	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	27.2		ug/L		109	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		106	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	22.4		ug/L		90	70 - 130	4	20
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130	1	20
1,2-Dichloroethane	25.0	22.6		ug/L		90	70 - 130	0	20
1,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 130	0	20
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130	3	20
1,3-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130	2	20
1,3-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	3	20
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130	0	20
1,4-Dioxane	500	664	*	ug/L		133	70 - 130	4	20
2,2-Dichloropropane	25.0	24.5		ug/L		98	70 - 130	1	20
2-Butanone (MEK)	125	202	*	ug/L		162	70 - 130	1	20
2-Chlorotoluene	25.0	29.7		ug/L		119	70 - 130	4	20
2-Hexanone	125	180	*	ug/L		144	70 - 130	2	20
4-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130	1	20
4-Isopropyltoluene	25.0	27.9		ug/L		112	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	128		ug/L		102	70 - 130	1	20
Acetone	125	87.4		ug/L		70	70 - 130	1	20
Benzene	25.0	23.8		ug/L		95	70 - 130	1	20
Bromobenzene	25.0	25.4		ug/L		102	70 - 130	1	20

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-396532/9

Matrix: Water

Analysis Batch: 396532

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	
								RPD	Limit
Bromoform	25.0	25.9		ug/L		104	70 - 130	2	20
Bromomethane	25.0	23.2		ug/L		93	70 - 130	1	20
Carbon disulfide	25.0	23.9		ug/L		96	70 - 130	4	20
Carbon tetrachloride	25.0	25.0		ug/L		100	70 - 130	3	20
Chlorobenzene	25.0	26.0		ug/L		104	70 - 130	4	20
Chlorobromomethane	25.0	23.8		ug/L		95	70 - 130	0	20
Chlorodibromomethane	25.0	25.7		ug/L		103	70 - 130	1	20
Chloroethane	25.0	25.1		ug/L		100	70 - 130	3	20
Chloroform	25.0	22.9		ug/L		92	70 - 130	1	20
Chloromethane	25.0	24.8		ug/L		99	70 - 130	2	20
cis-1,2-Dichloroethene	25.0	23.2		ug/L		93	70 - 130	0	20
cis-1,3-Dichloropropene	25.0	24.4		ug/L		97	70 - 130	0	20
Dichlorobromomethane	25.0	23.5		ug/L		94	70 - 130	1	20
Dichlorodifluoromethane	25.0	24.0		ug/L		96	70 - 130	4	20
Ethyl ether	25.0	23.9		ug/L		96	70 - 130	0	20
Ethylbenzene	25.0	26.9		ug/L		108	70 - 130	4	20
Ethylene Dibromide	25.0	25.4		ug/L		102	70 - 130	1	20
Hexachlorobutadiene	25.0	26.4		ug/L		106	70 - 130	3	20
Isopropyl ether	25.0	27.0		ug/L		108	70 - 130	0	20
Isopropylbenzene	25.0	27.3		ug/L		109	70 - 130	4	20
Methyl tert-butyl ether	25.0	23.5		ug/L		94	70 - 130	0	20
Methylene Chloride	25.0	22.2		ug/L		89	70 - 130	0	20
m-Xylene & p-Xylene	25.0	26.7		ug/L		107	70 - 130	5	20
Naphthalene	25.0	25.9		ug/L		103	70 - 130	0	20
n-Butylbenzene	25.0	27.2		ug/L		109	70 - 130	3	20
N-Propylbenzene	25.0	26.8		ug/L		107	70 - 130	3	20
o-Xylene	25.0	27.0		ug/L		108	70 - 130	4	20
sec-Butylbenzene	25.0	27.4		ug/L		110	70 - 130	4	20
Styrene	25.0	27.2		ug/L		109	70 - 130	4	20
Tert-amyl methyl ether	25.0	27.5		ug/L		110	70 - 130	0	20
Tert-butyl ethyl ether	25.0	27.6		ug/L		110	70 - 130	0	20
tert-Butylbenzene	25.0	26.4		ug/L		106	70 - 130	3	20
Tetrachloroethene	25.0	29.8		ug/L		119	70 - 130	7	20
Tetrahydrofuran	50.0	45.6		ug/L		91	70 - 130	3	20
Toluene	25.0	26.2		ug/L		105	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	1	20
Trichloroethene	25.0	24.6		ug/L		99	70 - 130	2	20
Trichlorofluoromethane	25.0	24.4		ug/L		97	70 - 130	4	20
Vinyl chloride	25.0	23.1		ug/L		92	70 - 130	3	20
Dibromomethane	25.0	23.6		ug/L		94	70 - 130	0	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	87		70 - 130
4-Bromofluorobenzene (Surr)	110		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-396842/8

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/23/18 10:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/23/18 10:59	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			01/23/18 10:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/23/18 10:59	1
1,1-Dichloroethane	ND		1.0		ug/L			01/23/18 10:59	1
1,1-Dichloroethene	ND		1.0		ug/L			01/23/18 10:59	1
1,1-Dichloropropene	ND		1.0		ug/L			01/23/18 10:59	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/23/18 10:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			01/23/18 10:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,2-Dichloroethane	ND		1.0		ug/L			01/23/18 10:59	1
1,2-Dichloropropane	ND		1.0		ug/L			01/23/18 10:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,3-Dichloropropane	ND		1.0		ug/L			01/23/18 10:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
1,4-Dioxane	ND		50		ug/L			01/23/18 10:59	1
2,2-Dichloropropane	ND		1.0		ug/L			01/23/18 10:59	1
2-Butanone (MEK)	ND		10		ug/L			01/23/18 10:59	1
2-Chlorotoluene	ND		1.0		ug/L			01/23/18 10:59	1
2-Hexanone	ND		10		ug/L			01/23/18 10:59	1
4-Chlorotoluene	ND		1.0		ug/L			01/23/18 10:59	1
4-Isopropyltoluene	ND		1.0		ug/L			01/23/18 10:59	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			01/23/18 10:59	1
Acetone	ND		50		ug/L			01/23/18 10:59	1
Benzene	ND		1.0		ug/L			01/23/18 10:59	1
Bromobenzene	ND		1.0		ug/L			01/23/18 10:59	1
Bromoform	ND		1.0		ug/L			01/23/18 10:59	1
Bromomethane	ND		2.0		ug/L			01/23/18 10:59	1
Carbon disulfide	ND		10		ug/L			01/23/18 10:59	1
Carbon tetrachloride	ND		1.0		ug/L			01/23/18 10:59	1
Chlorobenzene	ND		1.0		ug/L			01/23/18 10:59	1
Chlorobromomethane	ND		1.0		ug/L			01/23/18 10:59	1
Chlorodibromomethane	ND		0.50		ug/L			01/23/18 10:59	1
Chloroethane	ND		2.0		ug/L			01/23/18 10:59	1
Chloroform	ND		1.0		ug/L			01/23/18 10:59	1
Chloromethane	ND		2.0		ug/L			01/23/18 10:59	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/23/18 10:59	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			01/23/18 10:59	1
Dichlorobromomethane	ND		0.50		ug/L			01/23/18 10:59	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/23/18 10:59	1
Ethyl ether	ND		1.0		ug/L			01/23/18 10:59	1
Ethylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
Ethylene Dibromide	ND		1.0		ug/L			01/23/18 10:59	1
Hexachlorobutadiene	ND		0.40		ug/L			01/23/18 10:59	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-396842/8

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Isopropyl ether	ND		10		ug/L			01/23/18 10:59	1
Isopropylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/23/18 10:59	1
Methylene Chloride	ND		1.0		ug/L			01/23/18 10:59	1
m-Xylene & p-Xylene	ND		2.0		ug/L			01/23/18 10:59	1
Naphthalene	ND		5.0		ug/L			01/23/18 10:59	1
n-Butylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
N-Propylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
o-Xylene	ND		1.0		ug/L			01/23/18 10:59	1
sec-Butylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
Styrene	ND		1.0		ug/L			01/23/18 10:59	1
Tert-amyl methyl ether	ND		5.0		ug/L			01/23/18 10:59	1
Tert-butyl ethyl ether	ND		5.0		ug/L			01/23/18 10:59	1
tert-Butylbenzene	ND		1.0		ug/L			01/23/18 10:59	1
Tetrachloroethene	ND		1.0		ug/L			01/23/18 10:59	1
Tetrahydrofuran	ND		10		ug/L			01/23/18 10:59	1
Toluene	ND		1.0		ug/L			01/23/18 10:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/23/18 10:59	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			01/23/18 10:59	1
Trichloroethene	ND		1.0		ug/L			01/23/18 10:59	1
Trichlorofluoromethane	ND		1.0		ug/L			01/23/18 10:59	1
Vinyl chloride	ND		1.0		ug/L			01/23/18 10:59	1
Dibromomethane	ND		1.0		ug/L			01/23/18 10:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	103		70 - 130		01/23/18 10:59	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		01/23/18 10:59	1
4-Bromofluorobenzene (Surr)	106		70 - 130		01/23/18 10:59	1

Lab Sample ID: LCS 480-396842/5

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	25.0	26.7		ug/L		107	70 - 130
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.1		ug/L		96	70 - 130
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	25.1		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	24.1		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	25.5		ug/L		102	70 - 130
1,2,3-Trichlorobenzene	25.0	28.0		ug/L		112	70 - 130
1,2,3-Trichloropropane	25.0	25.0		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	25.0	28.6		ug/L		115	70 - 130
1,2,4-Trimethylbenzene	25.0	27.4		ug/L		110	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.1		ug/L		88	70 - 130
1,2-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	23.5		ug/L		94	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396842/5

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	25.0	27.6		ug/L		110	70 - 130
1,3-Dichlorobenzene	25.0	26.6		ug/L		107	70 - 130
1,3-Dichloropropane	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,4-Dioxane	500	590		ug/L		118	70 - 130
2,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130
2-Butanone (MEK)	125	190	*	ug/L		152	70 - 130
2-Chlorotoluene	25.0	29.9		ug/L		120	70 - 130
2-Hexanone	125	167	*	ug/L		133	70 - 130
4-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130
4-Isopropyltoluene	25.0	29.8		ug/L		119	70 - 130
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	70 - 130
Acetone	125	80.9	*	ug/L		65	70 - 130
Benzene	25.0	24.8		ug/L		99	70 - 130
Bromobenzene	25.0	26.1		ug/L		105	70 - 130
Bromoform	25.0	25.6		ug/L		102	70 - 130
Bromomethane	25.0	23.8		ug/L		95	70 - 130
Carbon disulfide	25.0	25.1		ug/L		101	70 - 130
Carbon tetrachloride	25.0	25.8		ug/L		103	70 - 130
Chlorobenzene	25.0	26.4		ug/L		106	70 - 130
Chlorobromomethane	25.0	24.3		ug/L		97	70 - 130
Chlorodibromomethane	25.0	25.5		ug/L		102	70 - 130
Chloroethane	25.0	24.6		ug/L		98	70 - 130
Chloroform	25.0	23.9		ug/L		96	70 - 130
Chloromethane	25.0	26.4		ug/L		106	70 - 130
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130
Dichlorobromomethane	25.0	24.3		ug/L		97	70 - 130
Dichlorodifluoromethane	25.0	27.3		ug/L		109	70 - 130
Ethyl ether	25.0	24.9		ug/L		100	70 - 130
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130
Ethylene Dibromide	25.0	25.2		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	30.3		ug/L		121	70 - 130
Isopropyl ether	25.0	26.6		ug/L		107	70 - 130
Isopropylbenzene	25.0	27.7		ug/L		111	70 - 130
Methyl tert-butyl ether	25.0	23.6		ug/L		95	70 - 130
Methylene Chloride	25.0	22.5		ug/L		90	70 - 130
m-Xylene & p-Xylene	25.0	27.1		ug/L		108	70 - 130
Naphthalene	25.0	25.3		ug/L		101	70 - 130
n-Butylbenzene	25.0	29.9		ug/L		119	70 - 130
N-Propylbenzene	25.0	28.0		ug/L		112	70 - 130
o-Xylene	25.0	27.2		ug/L		109	70 - 130
sec-Butylbenzene	25.0	29.4		ug/L		118	70 - 130
Styrene	25.0	27.2		ug/L		109	70 - 130
Tert-amyl methyl ether	25.0	26.4		ug/L		106	70 - 130
Tert-butyl ethyl ether	25.0	26.7		ug/L		107	70 - 130
tert-Butylbenzene	25.0	28.0		ug/L		112	70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-396842/5

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	28.9		ug/L		116	70 - 130
Tetrahydrofuran	50.0	44.6		ug/L		89	70 - 130
Toluene	25.0	26.6		ug/L		106	70 - 130
trans-1,2-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	24.9		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	24.4		ug/L		98	70 - 130
Vinyl chloride	25.0	23.5		ug/L		94	70 - 130
Dibromomethane	25.0	24.2		ug/L		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 480-396842/6

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	27.1		ug/L		108	70 - 130	2	20
1,1,1-Trichloroethane	25.0	27.9		ug/L		112	70 - 130	9	20
1,1,1,2,2-Tetrachloroethane	25.0	24.2		ug/L		97	70 - 130	0	20
1,1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	1	20
1,1-Dichloroethane	25.0	26.9		ug/L		108	70 - 130	7	20
1,1-Dichloroethene	25.0	26.7		ug/L		107	70 - 130	10	20
1,1-Dichloropropene	25.0	27.8		ug/L		111	70 - 130	9	20
1,2,3-Trichlorobenzene	25.0	28.2		ug/L		113	70 - 130	1	20
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	29.0		ug/L		116	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	28.5		ug/L		114	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	22.0		ug/L		88	70 - 130	0	20
1,2-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130	2	20
1,2-Dichloroethane	25.0	24.0		ug/L		96	70 - 130	2	20
1,2-Dichloropropane	25.0	26.7		ug/L		107	70 - 130	5	20
1,3,5-Trimethylbenzene	25.0	28.6		ug/L		114	70 - 130	4	20
1,3-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	1	20
1,4-Dichlorobenzene	25.0	27.4		ug/L		109	70 - 130	3	20
1,4-Dioxane	500	625		ug/L		125	70 - 130	6	20
2,2-Dichloropropane	25.0	27.1		ug/L		109	70 - 130	7	20
2-Butanone (MEK)	125	195	*	ug/L		156	70 - 130	3	20
2-Chlorotoluene	25.0	31.3		ug/L		125	70 - 130	4	20
2-Hexanone	125	168	*	ug/L		134	70 - 130	0	20
4-Chlorotoluene	25.0	28.1		ug/L		113	70 - 130	3	20
4-Isopropyltoluene	25.0	31.3		ug/L		125	70 - 130	5	20
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		97	70 - 130	0	20
Acetone	125	82.7	*	ug/L		66	70 - 130	2	20

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-396842/6

Matrix: Water

Analysis Batch: 396842

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Benzene	25.0	26.5		ug/L		106	70 - 130	7	20	
Bromobenzene	25.0	26.8		ug/L		107	70 - 130	2	20	
Bromoform	25.0	24.9		ug/L		100	70 - 130	3	20	
Bromomethane	25.0	25.6		ug/L		102	70 - 130	7	20	
Carbon disulfide	25.0	28.1		ug/L		113	70 - 130	11	20	
Carbon tetrachloride	25.0	28.2		ug/L		113	70 - 130	9	20	
Chlorobenzene	25.0	27.1		ug/L		109	70 - 130	3	20	
Chlorobromomethane	25.0	25.3		ug/L		101	70 - 130	4	20	
Chlorodibromomethane	25.0	26.1		ug/L		105	70 - 130	3	20	
Chloroethane	25.0	27.0		ug/L		108	70 - 130	9	20	
Chloroform	25.0	25.3		ug/L		101	70 - 130	5	20	
Chloromethane	25.0	28.8		ug/L		115	70 - 130	9	20	
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 130	5	20	
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 130	5	20	
Dichlorobromomethane	25.0	25.4		ug/L		101	70 - 130	4	20	
Dichlorodifluoromethane	25.0	30.2		ug/L		121	70 - 130	10	20	
Ethyl ether	25.0	26.1		ug/L		104	70 - 130	5	20	
Ethylbenzene	25.0	28.1		ug/L		113	70 - 130	4	20	
Ethylene Dibromide	25.0	25.2		ug/L		101	70 - 130	0	20	
Hexachlorobutadiene	25.0	32.3		ug/L		129	70 - 130	6	20	
Isopropyl ether	25.0	27.5		ug/L		110	70 - 130	3	20	
Isopropylbenzene	25.0	29.1		ug/L		117	70 - 130	5	20	
Methyl tert-butyl ether	25.0	24.3		ug/L		97	70 - 130	3	20	
Methylene Chloride	25.0	23.6		ug/L		95	70 - 130	5	20	
m-Xylene & p-Xylene	25.0	28.2		ug/L		113	70 - 130	4	20	
Naphthalene	25.0	25.3		ug/L		101	70 - 130	0	20	
n-Butylbenzene	25.0	31.4		ug/L		126	70 - 130	5	20	
N-Propylbenzene	25.0	29.4		ug/L		118	70 - 130	5	20	
o-Xylene	25.0	27.8		ug/L		111	70 - 130	2	20	
sec-Butylbenzene	25.0	30.7		ug/L		123	70 - 130	4	20	
Styrene	25.0	28.1		ug/L		112	70 - 130	3	20	
Tert-amyl methyl ether	25.0	27.0		ug/L		108	70 - 130	2	20	
Tert-butyl ethyl ether	25.0	27.8		ug/L		111	70 - 130	4	20	
tert-Butylbenzene	25.0	29.2		ug/L		117	70 - 130	4	20	
Tetrachloroethene	25.0	30.5		ug/L		122	70 - 130	5	20	
Tetrahydrofuran	50.0	45.0		ug/L		90	70 - 130	1	20	
Toluene	25.0	27.7		ug/L		111	70 - 130	4	20	
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	70 - 130	9	20	
trans-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130	1	20	
Trichloroethene	25.0	27.0		ug/L		108	70 - 130	8	20	
Trichlorofluoromethane	25.0	26.7		ug/L		107	70 - 130	9	20	
Vinyl chloride	25.0	26.3		ug/L		105	70 - 130	11	20	
Dibromomethane	25.0	24.4		ug/L		98	70 - 130	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-396294/1-A
Matrix: Water
Analysis Batch: 396533

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		01/18/18 08:20	01/18/18 22:36	1

Lab Sample ID: LCS 480-396294/2-A
Matrix: Water
Analysis Batch: 396533

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	9.48		mg/L		95	80 - 120

Lab Sample ID: LCSD 480-396294/3-A
Matrix: Water
Analysis Batch: 396533

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 396294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10.0	9.58		mg/L		96	80 - 120	1	20

Lab Sample ID: 480-130240-2 MS
Matrix: Water
Analysis Batch: 396533

Client Sample ID: MW-562-20180117
Prep Type: Total/NA
Prep Batch: 396294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	130		10.0	134	4	mg/L		87	75 - 125

Lab Sample ID: 480-130240-2 MSD
Matrix: Water
Analysis Batch: 396533

Client Sample ID: MW-562-20180117
Prep Type: Total/NA
Prep Batch: 396294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	130		10.0	129	4	mg/L		33	75 - 125	4	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-396412/29
Matrix: Water
Analysis Batch: 396412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			01/18/18 18:36	1
Sulfate	ND		2.0		mg/L			01/18/18 18:36	1

Lab Sample ID: LCS 480-396412/28
Matrix: Water
Analysis Batch: 396412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.8		mg/L		98	90 - 110
Sulfate	50.0	49.2		mg/L		98	90 - 110

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 480-130240-5 MS
Matrix: Water
Analysis Batch: 396412

Client Sample ID: REW-12-20180117
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	33		250	274		mg/L		97	81 - 120
Sulfate	ND		250	245		mg/L		98	80 - 120

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-396519/2-A
Matrix: Water
Analysis Batch: 396649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 396519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		01/18/18 09:02	01/20/18 11:56	1

Lab Sample ID: LCS 480-396519/1-A
Matrix: Water
Analysis Batch: 396649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 396519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.05		mg/L		105	90 - 110

Lab Sample ID: 480-130240-5 MS
Matrix: Water
Analysis Batch: 396649

Client Sample ID: REW-12-20180117
Prep Type: Total/NA
Prep Batch: 396519

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	11		0.500	13.3	4	mg/L		480	90 - 110

Lab Sample ID: 480-130240-4 DU
Matrix: Water
Analysis Batch: 396649

Client Sample ID: REW-7-20180117
Prep Type: Total/NA
Prep Batch: 396519

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia	1.9		1.89		mg/L		2	20

Method: 410.4 - COD

Lab Sample ID: MB 480-396434/27
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			01/18/18 15:15	1

Lab Sample ID: LCS 480-396434/28
Matrix: Water
Analysis Batch: 396434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.1		mg/L		92	90 - 110

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 410.4 - COD (Continued)

Lab Sample ID: MB 480-397193/27
Matrix: Water
Analysis Batch: 397193

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			01/24/18 16:30	1

Lab Sample ID: MB 480-397193/3
Matrix: Water
Analysis Batch: 397193

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			01/24/18 16:30	1

Lab Sample ID: LCS 480-397193/28
Matrix: Water
Analysis Batch: 397193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.4		mg/L		93	90 - 110

Lab Sample ID: LCS 480-397193/4
Matrix: Water
Analysis Batch: 397193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	25.0	23.1		mg/L		92	90 - 110

Method: 9040C - pH

Lab Sample ID: 480-130240-1 DU
Matrix: Water
Analysis Batch: 396425

Client Sample ID: MW-265M-20180117
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.0	HF	7.0		SU		0.6	5
Temperature	19.9	HF	20.1		Degrees C		0.8	10

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-396690/28
Matrix: Water
Analysis Batch: 396690

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0		mg/L			01/22/18 00:10	1
TOC Result 2	ND		1.0		mg/L			01/22/18 00:10	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			01/22/18 00:10	1

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 480-396690/29

Matrix: Water

Analysis Batch: 396690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.8		mg/L		96	90 - 110
TOC Result 2	60.0	59.3		mg/L		99	90 - 110
Total Organic Carbon - Duplicates	60.0	58.5		mg/L		98	90 - 110

Lab Sample ID: 480-130240-2 MS

Matrix: Water

Analysis Batch: 396690

Client Sample ID: MW-562-20180117

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	78	F1	20.0	88.6	F1	mg/L		52	54 - 131
TOC Result 2	80		20.0	92.8	4	mg/L		64	54 - 131
Total Organic Carbon - Duplicates	79		20.0	90.7		mg/L		58	54 - 131

Lab Sample ID: 480-130240-1 DU

Matrix: Water

Analysis Batch: 396690

Client Sample ID: MW-265M-20180117

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
TOC Result 1	7.4		8.74		mg/L		17	20
TOC Result 2	7.7		8.88		mg/L		14	20
Total Organic Carbon - Duplicates	7.5		8.81		mg/L		15	20

Lab Sample ID: MB 480-397090/4

Matrix: Water

Analysis Batch: 397090

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND	^	1.0		mg/L			01/23/18 15:51	1
TOC Result 2	ND		1.0		mg/L			01/23/18 15:51	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			01/23/18 15:51	1

Lab Sample ID: LCS 480-397090/5

Matrix: Water

Analysis Batch: 397090

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.5	^	mg/L		96	90 - 110
TOC Result 2	60.0	61.0		mg/L		102	90 - 110
Total Organic Carbon - Duplicates	60.0	59.2		mg/L		99	90 - 110

QC Sample Results

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-396753/30
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			01/20/18 15:53	1

Lab Sample ID: MB 480-396753/7
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity, Total	ND		5.0		mg/L			01/20/18 12:34	1

Lab Sample ID: LCS 480-396753/31
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	97.3		mg/L		97	90 - 110

Lab Sample ID: LCS 480-396753/8
Matrix: Water
Analysis Batch: 396753

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	95.8		mg/L		96	90 - 110

Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-396431/3
Matrix: Water
Analysis Batch: 396431

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ortho-Phosphate	ND		0.020		mg/L			01/18/18 12:55	1

Lab Sample ID: LCS 480-396431/4
Matrix: Water
Analysis Batch: 396431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.200	0.199		mg/L		99	90 - 110

Lab Sample ID: 480-130240-4 MS
Matrix: Water
Analysis Batch: 396431

Client Sample ID: REW-7-20180117
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.15		1.00	1.10		mg/L		95	49 - 138

TestAmerica Buffalo

QC Sample Results

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method: SM 4500 P E - Orthophosphate (Continued)

Lab Sample ID: 480-130240-4 MSD
 Matrix: Water
 Analysis Batch: 396431

Client Sample ID: REW-7-20180117
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.15		1.00	1.13		mg/L		98	49 - 138	3	20

- 1
- 2
- 3
- 4
- 5
- 6
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- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

GC/MS VOA

Analysis Batch: 396313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-3	MW-563-20180117	Total/NA	Water	8260C	
480-130240-4	REW-7-20180117	Total/NA	Water	8260C	
480-130240-5	REW-12-20180117	Total/NA	Water	8260C	
480-130240-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-396313/34	Method Blank	Total/NA	Water	8260C	
LCS 480-396313/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-396313/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 396532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-2	MW-562-20180117	Total/NA	Water	8260C	
MB 480-396532/7	Method Blank	Total/NA	Water	8260C	
LCS 480-396532/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-396532/9	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 396842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	8260C	
MB 480-396842/8	Method Blank	Total/NA	Water	8260C	
LCS 480-396842/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-396842/6	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 396294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	3005A	
480-130240-2	MW-562-20180117	Total/NA	Water	3005A	
480-130240-3	MW-563-20180117	Total/NA	Water	3005A	
480-130240-4	REW-7-20180117	Total/NA	Water	3005A	
480-130240-5	REW-12-20180117	Total/NA	Water	3005A	
MB 480-396294/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-396294/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-396294/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-130240-2 MS	MW-562-20180117	Total/NA	Water	3005A	
480-130240-2 MSD	MW-562-20180117	Total/NA	Water	3005A	

Analysis Batch: 396533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	6010	396294
480-130240-2	MW-562-20180117	Total/NA	Water	6010	396294
480-130240-3	MW-563-20180117	Total/NA	Water	6010	396294
480-130240-4	REW-7-20180117	Total/NA	Water	6010	396294
480-130240-5	REW-12-20180117	Total/NA	Water	6010	396294
MB 480-396294/1-A	Method Blank	Total/NA	Water	6010	396294
LCS 480-396294/2-A	Lab Control Sample	Total/NA	Water	6010	396294
LCSD 480-396294/3-A	Lab Control Sample Dup	Total/NA	Water	6010	396294
480-130240-2 MS	MW-562-20180117	Total/NA	Water	6010	396294
480-130240-2 MSD	MW-562-20180117	Total/NA	Water	6010	396294

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

General Chemistry

Analysis Batch: 396412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	300.0	
480-130240-2	MW-562-20180117	Total/NA	Water	300.0	
480-130240-3	MW-563-20180117	Total/NA	Water	300.0	
480-130240-4	REW-7-20180117	Total/NA	Water	300.0	
480-130240-5	REW-12-20180117	Total/NA	Water	300.0	
MB 480-396412/29	Method Blank	Total/NA	Water	300.0	
LCS 480-396412/28	Lab Control Sample	Total/NA	Water	300.0	
480-130240-5 MS	REW-12-20180117	Total/NA	Water	300.0	

Analysis Batch: 396425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	9040C	
480-130240-2	MW-562-20180117	Total/NA	Water	9040C	
480-130240-3	MW-563-20180117	Total/NA	Water	9040C	
480-130240-4	REW-7-20180117	Total/NA	Water	9040C	
480-130240-5	REW-12-20180117	Total/NA	Water	9040C	
LCS 480-396425/23	Lab Control Sample	Total/NA	Water	9040C	
480-130240-1 DU	MW-265M-20180117	Total/NA	Water	9040C	

Analysis Batch: 396431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	SM 4500 P E	
480-130240-2	MW-562-20180117	Total/NA	Water	SM 4500 P E	
480-130240-3	MW-563-20180117	Total/NA	Water	SM 4500 P E	
480-130240-4	REW-7-20180117	Total/NA	Water	SM 4500 P E	
480-130240-5	REW-12-20180117	Total/NA	Water	SM 4500 P E	
MB 480-396431/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-396431/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-130240-4 MS	REW-7-20180117	Total/NA	Water	SM 4500 P E	
480-130240-4 MSD	REW-7-20180117	Total/NA	Water	SM 4500 P E	

Analysis Batch: 396434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	410.4	
480-130240-3	MW-563-20180117	Total/NA	Water	410.4	
480-130240-4	REW-7-20180117	Total/NA	Water	410.4	
MB 480-396434/27	Method Blank	Total/NA	Water	410.4	
LCS 480-396434/28	Lab Control Sample	Total/NA	Water	410.4	

Analysis Batch: 396460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	353.2	
480-130240-2	MW-562-20180117	Total/NA	Water	353.2	
480-130240-3	MW-563-20180117	Total/NA	Water	353.2	
480-130240-4	REW-7-20180117	Total/NA	Water	353.2	
480-130240-5	REW-12-20180117	Total/NA	Water	353.2	

Prep Batch: 396519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	Distill/Ammonia	
480-130240-2	MW-562-20180117	Total/NA	Water	Distill/Ammonia	

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

General Chemistry (Continued)

Prep Batch: 396519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-3	MW-563-20180117	Total/NA	Water	Distill/Ammonia	
480-130240-4	REW-7-20180117	Total/NA	Water	Distill/Ammonia	
480-130240-5	REW-12-20180117	Total/NA	Water	Distill/Ammonia	
MB 480-396519/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-396519/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
480-130240-5 MS	REW-12-20180117	Total/NA	Water	Distill/Ammonia	
480-130240-4 DU	REW-7-20180117	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 396649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	350.1	396519
480-130240-2	MW-562-20180117	Total/NA	Water	350.1	396519
480-130240-3	MW-563-20180117	Total/NA	Water	350.1	396519
480-130240-4	REW-7-20180117	Total/NA	Water	350.1	396519
480-130240-5	REW-12-20180117	Total/NA	Water	350.1	396519
MB 480-396519/2-A	Method Blank	Total/NA	Water	350.1	396519
LCS 480-396519/1-A	Lab Control Sample	Total/NA	Water	350.1	396519
480-130240-5 MS	REW-12-20180117	Total/NA	Water	350.1	396519
480-130240-4 DU	REW-7-20180117	Total/NA	Water	350.1	396519

Analysis Batch: 396690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	9060A	
480-130240-2	MW-562-20180117	Total/NA	Water	9060A	
480-130240-3	MW-563-20180117	Total/NA	Water	9060A	
480-130240-4	REW-7-20180117	Total/NA	Water	9060A	
MB 480-396690/28	Method Blank	Total/NA	Water	9060A	
LCS 480-396690/29	Lab Control Sample	Total/NA	Water	9060A	
480-130240-2 MS	MW-562-20180117	Total/NA	Water	9060A	
480-130240-1 DU	MW-265M-20180117	Total/NA	Water	9060A	

Analysis Batch: 396753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-1	MW-265M-20180117	Total/NA	Water	SM 2320B	
480-130240-2	MW-562-20180117	Total/NA	Water	SM 2320B	
480-130240-3	MW-563-20180117	Total/NA	Water	SM 2320B	
480-130240-4	REW-7-20180117	Total/NA	Water	SM 2320B	
480-130240-5	REW-12-20180117	Total/NA	Water	SM 2320B	
MB 480-396753/30	Method Blank	Total/NA	Water	SM 2320B	
MB 480-396753/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-396753/31	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-396753/8	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 397090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-5	REW-12-20180117	Total/NA	Water	9060A	
MB 480-397090/4	Method Blank	Total/NA	Water	9060A	
LCS 480-397090/5	Lab Control Sample	Total/NA	Water	9060A	

TestAmerica Buffalo

QC Association Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

General Chemistry (Continued)

Analysis Batch: 397193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-130240-2	MW-562-20180117	Total/NA	Water	410.4	
480-130240-5	REW-12-20180117	Total/NA	Water	410.4	
MB 480-397193/27	Method Blank	Total/NA	Water	410.4	
MB 480-397193/3	Method Blank	Total/NA	Water	410.4	
LCS 480-397193/28	Lab Control Sample	Total/NA	Water	410.4	
LCS 480-397193/4	Lab Control Sample	Total/NA	Water	410.4	

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Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-265M-20180117

Lab Sample ID: 480-130240-1

Date Collected: 01/17/18 10:50

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	396842	01/23/18 12:27	KMN	TAL BUF
Total/NA	Prep	3005A			396294	01/18/18 08:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	396533	01/18/18 23:01	AMH	TAL BUF
Total/NA	Analysis	300.0		5	396412	01/18/18 20:38	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		2	396649	01/20/18 12:37	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396460	01/18/18 15:21	LED	TAL BUF
Total/NA	Analysis	410.4		1	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396425	01/18/18 14:13	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	396690	01/22/18 01:06	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 16:12	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396431	01/18/18 12:55	MDL	TAL BUF

Client Sample ID: MW-562-20180117

Lab Sample ID: 480-130240-2

Date Collected: 01/17/18 10:05

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	396532	01/19/18 13:50	RRS	TAL BUF
Total/NA	Prep	3005A			396294	01/18/18 08:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	396533	01/18/18 23:08	AMH	TAL BUF
Total/NA	Analysis	300.0		2	396412	01/18/18 20:46	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:01	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396460	01/18/18 15:22	LED	TAL BUF
Total/NA	Analysis	410.4		2	397193	01/24/18 16:30	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396425	01/18/18 14:20	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	396690	01/22/18 02:01	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 16:19	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396431	01/18/18 12:55	MDL	TAL BUF

Client Sample ID: MW-563-20180117

Lab Sample ID: 480-130240-3

Date Collected: 01/17/18 12:35

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	396313	01/18/18 17:36	KMN	TAL BUF
Total/NA	Prep	3005A			396294	01/18/18 08:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	396533	01/18/18 23:26	AMH	TAL BUF
Total/NA	Analysis	300.0		1	396412	01/18/18 20:54	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: MW-563-20180117

Lab Sample ID: 480-130240-3

Date Collected: 01/17/18 12:35

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	396649	01/20/18 12:02	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396460	01/18/18 15:27	LED	TAL BUF
Total/NA	Analysis	410.4		1	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396425	01/18/18 14:23	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	396690	01/22/18 02:57	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 16:27	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396431	01/18/18 12:55	MDL	TAL BUF

Client Sample ID: REW-7-20180117

Lab Sample ID: 480-130240-4

Date Collected: 01/17/18 13:25

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	396313	01/18/18 18:01	KMN	TAL BUF
Total/NA	Prep	3005A			396294	01/18/18 08:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	396533	01/18/18 23:40	AMH	TAL BUF
Total/NA	Analysis	300.0		1	396412	01/18/18 21:02	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		1	396649	01/20/18 12:03	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396460	01/18/18 15:28	LED	TAL BUF
Total/NA	Analysis	410.4		1	396434	01/18/18 15:15	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396425	01/18/18 14:26	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	396690	01/22/18 03:25	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 16:34	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396431	01/18/18 12:55	MDL	TAL BUF

Client Sample ID: REW-12-20180117

Lab Sample ID: 480-130240-5

Date Collected: 01/17/18 11:45

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	396313	01/18/18 18:27	KMN	TAL BUF
Total/NA	Prep	3005A			396294	01/18/18 08:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	396533	01/18/18 23:44	AMH	TAL BUF
Total/NA	Analysis	300.0		5	396412	01/18/18 21:10	CLA	TAL BUF
Total/NA	Prep	Distill/Ammonia			396519	01/18/18 09:02	SSS	TAL BUF
Total/NA	Analysis	350.1		10	396649	01/20/18 12:37	SSS	TAL BUF
Total/NA	Analysis	353.2		1	396460	01/18/18 15:29	LED	TAL BUF
Total/NA	Analysis	410.4		2	397193	01/24/18 16:30	DCB	TAL BUF
Total/NA	Analysis	9040C		1	396425	01/18/18 14:29	ALZ	TAL BUF
Total/NA	Analysis	9060A		2	397090	01/24/18 01:45	EKB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Client Sample ID: REW-12-20180117

Lab Sample ID: 480-130240-5

Date Collected: 01/17/18 11:45

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	396753	01/20/18 16:41	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	396431	01/18/18 12:55	MDL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-130240-6

Date Collected: 01/17/18 00:00

Matrix: Water

Date Received: 01/18/18 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	396313	01/18/18 18:52	KMN	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Innovative Engineering Solutions, Inc
 Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-18
California	State Program	9	2931	04-01-18
Connecticut	State Program	1	PH-0568	09-30-18
Florida	NELAP	4	E87672	06-30-18
Georgia	State Program	4	10026 (NY)	03-31-18
Georgia	State Program	4	956	03-31-18
Illinois	NELAP	5	200003	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18 *
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-18
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-18
Maine	State Program	1	NY00044	12-04-18
Maryland	State Program	3	294	03-31-18
Massachusetts	State Program	1	M-NY044	06-30-18
Michigan	State Program	5	9937	03-31-18
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18
New Jersey	NELAP	2	NY455	06-30-18
New York	NELAP	2	10026	03-31-18
North Dakota	State Program	8	R-176	03-31-18
Oklahoma	State Program	6	9421	08-31-18
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-18
Rhode Island	State Program	1	LAO00328	12-30-17 *
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-18
USDA	Federal		P330-11-00386	11-26-17 *
Virginia	NELAP	3	460185	09-14-18
Washington	State Program	10	C784	02-10-18 *
Wisconsin	State Program	5	998310390	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
6010	Metals (ICP)	SW846	TAL BUF
300.0	Anions, Ion Chromatography	MCAWW	TAL BUF
350.1	Nitrogen, Ammonia	MCAWW	TAL BUF
353.2	Nitrate	EPA	TAL BUF
410.4	COD	MCAWW	TAL BUF
9040C	pH	SW846	TAL BUF
9060A	Organic Carbon, Total (TOC)	SW846	TAL BUF
SM 2320B	Alkalinity	SM	TAL BUF
SM 4500 P E	Orthophosphate	SM	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Innovative Engineering Solutions, Inc
Project/Site: IDS Wayland

TestAmerica Job ID: 480-130240-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-130240-1	MW-265M-20180117	Water	01/17/18 10:50	01/18/18 01:00
480-130240-2	MW-562-20180117	Water	01/17/18 10:05	01/18/18 01:00
480-130240-3	MW-563-20180117	Water	01/17/18 12:35	01/18/18 01:00
480-130240-4	REW-7-20180117	Water	01/17/18 13:25	01/18/18 01:00
480-130240-5	REW-12-20180117	Water	01/17/18 11:45	01/18/18 01:00
480-130240-6	TRIP BLANK	Water	01/17/18 00:00	01/18/18 01:00

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Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-130240-1

Login Number: 130240

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	IESI
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



ANALYTICAL REPORT

Lab Number:	L1801698
Client:	Innovative Engineering Solutions, Inc. 25 Spring Street Walpole, MA 02081
ATTN:	Vicki Pariyar
Phone:	(508) 668-0033
Project Name:	RAYTHEON LOWELL
Project Number:	RA-008
Report Date:	01/26/18

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1801698-01	MW-265M-20180117	WATER	LOWELL, MA	01/17/18 10:50	01/17/18
L1801698-02	MW-267S-20180116	WATER	LOWELL, MA	01/16/18 12:30	01/17/18
L1801698-03	MW-268S-20180116	WATER	LOWELL, MA	01/16/18 09:10	01/17/18
L1801698-04	MW-268M-20180116	WATER	LOWELL, MA	01/16/18 09:55	01/17/18
L1801698-05	MW-562-20180117	WATER	LOWELL, MA	01/17/18 10:05	01/17/18
L1801698-06	MW-563-20180117	WATER	LOWELL, MA	01/17/18 12:35	01/17/18
L1801698-07	REW-6-20180116	WATER	LOWELL, MA	01/16/18 11:40	01/17/18
L1801698-08	REW-7-20180117	WATER	LOWELL, MA	01/17/18 13:25	01/17/18
L1801698-09	REW-11-20180116	WATER	LOWELL, MA	01/16/18 10:45	01/17/18
L1801698-10	REW-12-20180117	WATER	LOWELL, MA	01/17/18 11:45	01/17/18

Project Name: RAYTHEON LOWELL

Lab Number: L1801698

Project Number: RA-008

Report Date: 01/26/18

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

Case Narrative (continued)

MCP Related Narratives

Dissolved Gases

L1801698-01 through -10 were collected in pre-preserved vials; however, the pH of the samples was determined to be greater than two.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kara Soroko

Title: Technical Director/Representative

Date: 01/26/18

ORGANICS

VOLATILES

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-01
 Client ID: MW-265M-20180117
 Sample Location: LOWELL, MA

Date Collected: 01/17/18 10:50
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 14:05
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	28700	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	3.89		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-01 D

Date Collected: 01/17/18 10:50

Client ID: MW-265M-20180117

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 19:48

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	25600		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-02
 Client ID: MW-267S-20180116
 Sample Location: LOWELL, MA

Date Collected: 01/16/18 12:30
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 14:19
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	19100	E	ug/l	1.00	--	1	A
Ethene	4.51		ug/l	0.500	--	1	A
Ethane	1.28		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-02 D

Date Collected: 01/16/18 12:30

Client ID: MW-267S-20180116

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 20:02

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	16100		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-03
 Client ID: MW-268S-20180116
 Sample Location: LOWELL, MA

Date Collected: 01/16/18 09:10
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 14:34
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	9100	E	ug/l	1.00	--	1	A
Ethene	2.43		ug/l	0.500	--	1	A
Ethane	1.35		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-03 D

Date Collected: 01/16/18 09:10

Client ID: MW-268S-20180116

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 20:16

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	8360		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-04
 Client ID: MW-268M-20180116
 Sample Location: LOWELL, MA

Date Collected: 01/16/18 09:55
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 14:48
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	37000	E	ug/l	1.00	--	1	A
Ethene	7.30		ug/l	0.500	--	1	A
Ethane	7.80		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-04 D

Date Collected: 01/16/18 09:55

Client ID: MW-268M-20180116

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 20:30

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	30200		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-05
 Client ID: MW-562-20180117
 Sample Location: LOWELL, MA

Date Collected: 01/17/18 10:05
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 15:02
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	25300	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	0.693		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-05 D

Date Collected: 01/17/18 10:05

Client ID: MW-562-20180117

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 20:45

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	22200		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-06
 Client ID: MW-563-20180117
 Sample Location: LOWELL, MA

Date Collected: 01/17/18 12:35
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 15:17
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	34800	E	ug/l	1.00	--	1	A
Ethene	1.52		ug/l	0.500	--	1	A
Ethane	2.19		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-06 D

Date Collected: 01/17/18 12:35

Client ID: MW-563-20180117

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 22:05

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	29300		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-07
 Client ID: REW-6-20180116
 Sample Location: LOWELL, MA

Date Collected: 01/16/18 11:40
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 15:31
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	39500	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	6.95		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-07 D

Date Collected: 01/16/18 11:40

Client ID: REW-6-20180116

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 22:19

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	34500		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-08
 Client ID: REW-7-20180117
 Sample Location: LOWELL, MA

Date Collected: 01/17/18 13:25
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 15:45
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	40000	E	ug/l	1.00	--	1	A
Ethene	ND		ug/l	0.500	--	1	A
Ethane	14.8		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-08 D

Date Collected: 01/17/18 13:25

Client ID: REW-7-20180117

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 22:34

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	35500		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

SAMPLE RESULTS

Lab ID: L1801698-09
 Client ID: REW-11-20180116
 Sample Location: LOWELL, MA

Date Collected: 01/16/18 10:45
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 16:00
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	43700	E	ug/l	1.00	--	1	A
Ethene	7.45		ug/l	0.500	--	1	A
Ethane	28.0		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-09 D

Date Collected: 01/16/18 10:45

Client ID: REW-11-20180116

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 22:48

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	37800		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-10
 Client ID: REW-12-20180117
 Sample Location: LOWELL, MA

Date Collected: 01/17/18 11:45
 Date Received: 01/17/18
 Field Prep: Not Specified

Matrix: Water
 Analytical Method: 117,-
 Analytical Date: 01/22/18 19:31
 Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	39300	E	ug/l	1.00	--	1	A
Ethene	2.11		ug/l	0.500	--	1	A
Ethane	8.53		ug/l	0.500	--	1	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**SAMPLE RESULTS**

Lab ID: L1801698-10 D

Date Collected: 01/17/18 11:45

Client ID: REW-12-20180117

Date Received: 01/17/18

Sample Location: LOWELL, MA

Field Prep: Not Specified

Matrix: Water

Analytical Method: 117,-

Analytical Date: 01/22/18 23:02

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Dissolved Gases by GC - Mansfield Lab							
Methane	31500		ug/l	10.0	--	10	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**Method Blank Analysis**
Batch Quality Control

Analytical Method: 117,-

Analytical Date: 01/22/18 12:29

Analyst: LB

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases by GC - Mansfield Lab for sample(s): 01-10 Batch: WG1082782-3					
Methane	ND		ug/l	1.00	-- A
Ethene	ND		ug/l	0.500	-- A
Ethane	ND		ug/l	0.500	-- A

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON LOWELL

Project Number: RA-008

Lab Number: L1801698

Report Date: 01/26/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Dissolved Gases by GC - Mansfield Lab Associated sample(s): 01-10 Batch: WG1082782-2									
Methane	110		-		80-120	-		25	A
Ethene	101		-		80-120	-		25	A
Ethane	104		-		80-120	-		25	A

Project Name: RAYTHEON LOWELL**Lab Number:** L1801698**Project Number:** RA-008**Report Date:** 01/26/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1801698-01A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-01B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-02A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-02B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-03A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-03B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-04A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-04B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-05A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-05B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-06A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-06B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-07A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-07B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-08A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-08B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-09A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-09B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-10A	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)
L1801698-10B	20ml Vial HCl preserved	A	NA		2.4	Y	Absent		DISSGAS(14)

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report



Project Name: RAYTHEON LOWELL
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Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: RAYTHEON LOWELL
Project Number: RA-008

Lab Number: L1801698
Report Date: 01/26/18

REFERENCES

- 117 Technical Guidance for the Natural Attenuation Indicators: Methane, Ethane, and Ethene, EPA-NE, Revision 1, February 21, 2002 and Sample Preparation & Calculations for Dissolved Gas Analysis in Water Samples using a GC Headspace Equilibration Technique, EPA RSKSOP-175, Revision 2, May 2004.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,**

SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.**

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-622-9300

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 01/17/18

ALPHA Job #: U801698

Client Information

Client: *Innovative Engineering Solutions Inc*
Address: *25 Spring St
Walpole MA 02081*
Phone: *508-668-0033*
Email: *v.pariyar@IESonline.com*

Project Information

Project Name: *Raytheon Wayland*
Project Location: *Wayland MA*
Project #: *RA-008*
Project Manager: *Vicki Pariyar*
ALPHA Quote #:

Report Information - Data Deliverables

ADEx EMAIL

Billing Information

Same as Client info PO #: *RA-008*

Regulatory Requirements & Project Information Requirements

Yes No MA MCP Analytical Methods Yes No CT RCP Analytical Methods
 Yes No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
 Yes No GW1 Standards (Info Required for Metals & EPH with Targets)
 Yes No NPDES RGP
 Other State /Fed Program _____ Criteria _____

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)
Date Due: *1/25/18*

Additional Project Information:

ANALYSIS		SAMPLE INFO	TOTAL # BOTTLES
VOC: <input type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 524.2	SVOC: <input type="checkbox"/> ABN <input type="checkbox"/> PAH		
METALS: <input type="checkbox"/> MCP 13 <input type="checkbox"/> MCP 14 <input type="checkbox"/> RCP 15	METALS: <input type="checkbox"/> RCRA5 <input type="checkbox"/> RCRA8 <input type="checkbox"/> PP13	Preservation <input type="checkbox"/> Lab to do	
EPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	VPH: <input type="checkbox"/> Ranges & Targets <input type="checkbox"/> Ranges Only	Sample Comments	
<input type="checkbox"/> PCB <input type="checkbox"/> PEST	TPH: <input type="checkbox"/> Quant Only <input type="checkbox"/> Fingerprint		
<i>Disolved Conts (methanol, Ethanol, Ethylene)</i>			

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler Initials
		Date	Time		
80169801	MW-265M-20180117	1/17/18	1050	CW	g
-02	MW-267S-20180114	1/16/18	1230	CW	g
-03	MW-268S-20180116	1/14/18	0910	CW	g
-04	MW-268M-20180116	1/16/18	0955	CW	g
-05	MW-562-20180117	1/17/18	1005	CW	g
-06	MW-563-20180117	1/17/18	1235	CW	g
-07	REW-6-20180116	1/16/18	1140	CW	g
-08	REW-7-20180117	1/17/18	1325	CW	g
-09	REW-11-20180116	1/16/18	1045	CW	g
-10	REW-12-20180117	1/17/18	1145	CW	g

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₈
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type: *V*
Preservative: *B*

Temp Blanks included

Relinquished By: *[Signature]* Date/Time: *1/17/18 1455*
Received By: *[Signature]* Date/Time: *01/17/18 14:55*

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.