

**Environmental
Resources
Management**

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

<http://www.erm.com>

9 August 2017
Reference: 0377766

Wayland Meadows Development, Inc.
Attn: Mr. Richard Gass
145 Rosemary Street, Suite E
Needham, MA 02494



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

Dear Mr. Gass:

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 one monitoring well located on Wayland Meadows Development, Inc. property in July 2017. These samples were submitted to TestAmerica Laboratories, Inc. of Amherst, 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) 436-8298.

Mr. Gass
9 August 2017
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**Environmental
Resources
Management**

Sincerely,

A handwritten signature in blue ink, appearing to read "John C. Drobinski".

John C. Drobinski, P.G., LSP
Principal-in-Charge

A handwritten signature in blue ink, appearing to read "Lyndsey Colburn".

Lyndsey Colburn, P.G.
Principal Consultant

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: 480-120884-1

Client Project/Site: IDS Wayland

For:

Innovative Engineering Solutions, Inc

25 Spring Street

Walpole, Massachusetts 02081

Attn: Vicki Pariyar



Authorized for release by:

7/21/2017 10:28:21 AM

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: 480-120884-1

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.
F1	MS and/or MSD Recovery 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: 480-120884-1

Job ID: 480-120884-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-120884-1

Receipt

The samples were received on 7/12/2017 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° 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 collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-263M-20170711 (480-120884-1) and MW-562-20170711 (480-120884-2). The samples were analyzed within 7 days per EPA recommendation.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-562-20170711 (480-120884-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for Dichlorodifluoromethane associated with batch 480-367425 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-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2), MW-563-20170711 (480-120884-3), REW-7-20170711 (480-120884-4) and REW-12-20170711 (480-120884-5).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-367425 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 samples were affected : MW-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2), MW-563-20170711 (480-120884-3), REW-7-20170711 (480-120884-4) and REW-12-20170711 (480-120884-5).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-367425 exceeded control limits for the following analyte: Dichlorodifluoromethane. 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-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2), MW-563-20170711 (480-120884-3), REW-7-20170711 (480-120884-4) and REW-12-20170711 (480-120884-5).

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: REW-12-20170711 (480-120884-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, when verified by the laboratory, the pH was greater than 2 and the following sample was analyzed after 7 days from sampling: MW-562-20170711 (480-120884-2).

Method 8260C: The continuing calibration verification (CCV) for Carbon tetrachloride, Vinyl Chloride, Dichlorodifluoromethane, 1,1,1-Trichloroethane, and Trichlorofluoromethane associated with batch 480-367645 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 : TRIP BLANK (480-120884-6).

Method 8260C: The laboratory control sample (LCS) for batch 480-367645 exceeded control limits for the following analyte: Dichlorodifluoromethane. 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 : TRIP BLANK (480-120884-6).

Case Narrative

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

TestAmerica Job ID: 480-120884-1

Job ID: 480-120884-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method 8260C: The laboratory control sample (LCS) for batch 480-367645 exceeded control limits for the following analyte: Tetrahydrofuran. Unlike the calibration standards, this is due to the co-elution with Methacrylonitrile 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 : TRIP BLANK (480-120884-6).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-562-20170711 (480-120884-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, when verified by the laboratory, the pH was greater than 2 and the following sample was analyzed after 7 days from sampling: MW-263M-20170711 (480-120884-1).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-263M-20170711 (480-120884-1). 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.

HPLC/IC

Method 300.0: The following samples was reported with elevated reporting limits for all analytes: MW-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2) and REW-12-20170711 (480-120884-5). The sample was analyzed at a dilution based on screening results.

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/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 SM 2320B: The following samples was received with headspace in the sample bottle: MW-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2), MW-563-20170711 (480-120884-3), REW-7-20170711 (480-120884-4) and REW-12-20170711 (480-120884-5).

Method 353.2: The inter parameter relationship between nitrate/nitrite and nitrite does not meet acceptable criteria. This has been confirmed in both NO3/NO2 and NO2 analysis.
MW-263M-20170711 (480-120884-1)

Method 353.2: The inter parameter relationship between nitrate/nitrite and nitrite does not meet acceptable criteria. This has been confirmed in both NO3/NO2 and NO2 analysis.
MW-263M-20170711 (480-120884-1)

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-263M-20170711 (480-120884-1), MW-562-20170711 (480-120884-2), MW-563-20170711 (480-120884-3), REW-7-20170711 (480-120884-4) and REW-12-20170711 (480-120884-5).

Method Nitrate by calc: The inter parameter relationship between nitrate/nitrite and nitrite does not meet acceptable criteria for sample: MW-263M-20170711 (480-120884-1). This has been confirmed in both NO3/NO2 and NO2 analysis.

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 #: **480-120884**

Project Location: **IDS Wayland** RTN:

This form provides certifications for the following data set: list Laboratory Sample ID Number(s):
480-120884[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"/>	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: 7/21/17 10:19

Detection Summary

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

TestAmerica Job ID: 480-120884-1

Client Sample ID: MW-263M-20170711

Lab Sample ID: 480-120884-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	190	*	10		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	3.0		1.0		ug/L	1		8260C	Total/NA
Ethylbenzene	4.4		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	16		2.0		ug/L	1		8260C	Total/NA
o-Xylene	6.1		1.0		ug/L	1		8260C	Total/NA
Tetrahydrofuran	31		10		ug/L	1		8260C	Total/NA
Toluene	5.7		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	1.3		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	2.1		1.0		ug/L	1		8260C	Total/NA
Acetone - DL	600		100		ug/L	2		8260C	Total/NA
Iron	380		0.050		mg/L	1		6010	Total/NA
Chloride	82		5.0		mg/L	10		300.0	Total/NA
Ammonia	0.76		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	970		20		mg/L	20		9060A	Total/NA
TOC Result 2	1000		20		mg/L	20		9060A	Total/NA
Total Organic Carbon - Duplicates	980		20		mg/L	20		9060A	Total/NA
Alkalinity, Total	800		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.10		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.7	HF	0.1		SU	1		9040C	Total/NA
Temperature	21.0	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: 480-120884-1

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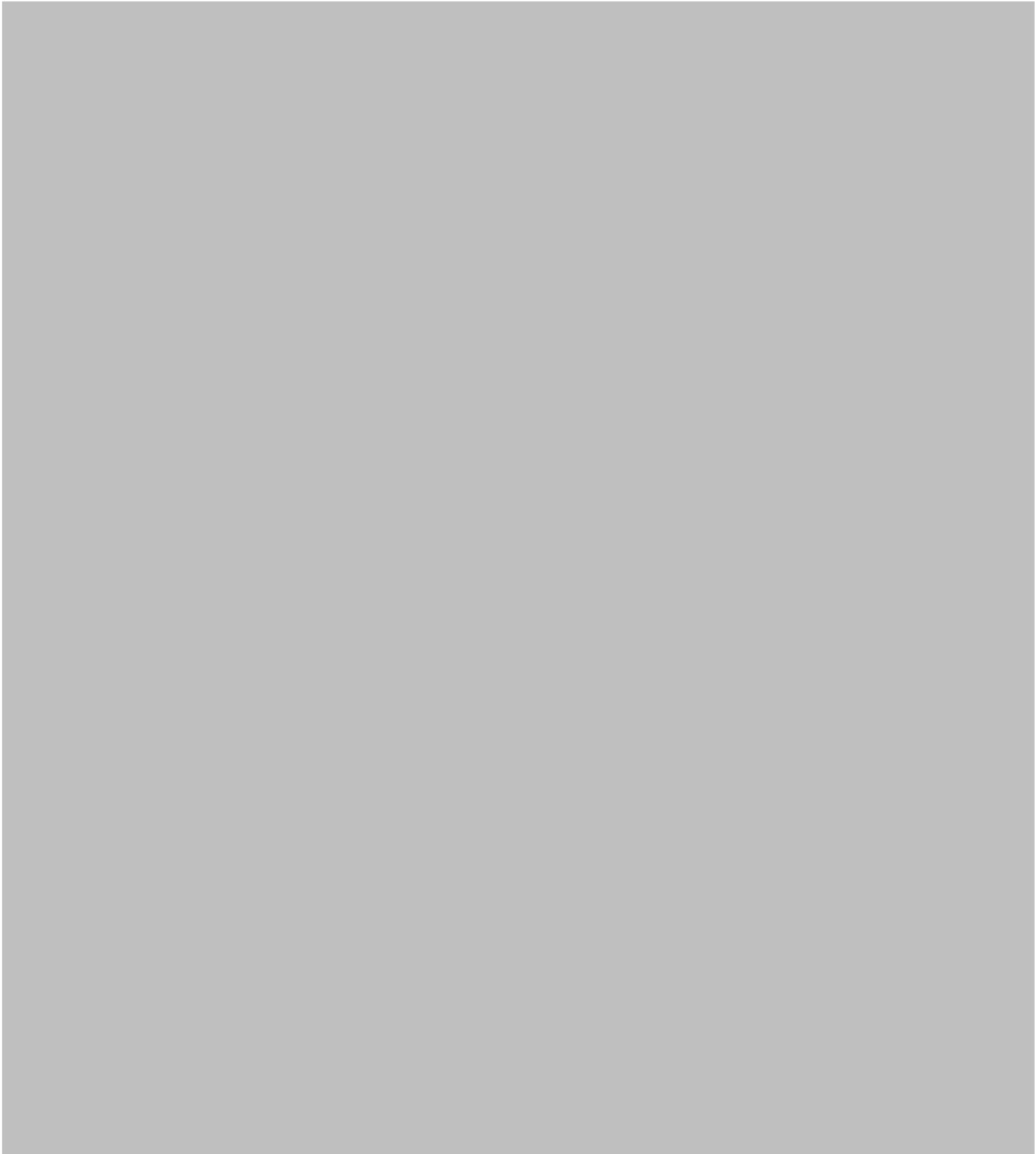
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This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1

Client Sample ID: MW-263M-20170711

Lab Sample ID: 480-120884-1

Date Collected: 07/11/17 09:35

Matrix: Water

Date Received: 07/12/17 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			07/18/17 15:48	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/18/17 15:48	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/18/17 15:48	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/18/17 15:48	1
1,1-Dichloroethane	ND		1.0		ug/L			07/18/17 15:48	1
1,1-Dichloroethene	ND		1.0		ug/L			07/18/17 15:48	1
1,1-Dichloropropene	ND		1.0		ug/L			07/18/17 15:48	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,2,3-Trichloropropane	ND		1.0		ug/L			07/18/17 15:48	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/18/17 15:48	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,2-Dichloroethane	ND		1.0		ug/L			07/18/17 15:48	1
1,2-Dichloropropane	ND		1.0		ug/L			07/18/17 15:48	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,3-Dichloropropane	ND		1.0		ug/L			07/18/17 15:48	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
1,4-Dioxane	ND		50		ug/L			07/18/17 15:48	1
2,2-Dichloropropane	ND		1.0		ug/L			07/18/17 15:48	1
2-Butanone (MEK)	190	*	10		ug/L			07/18/17 15:48	1
2-Chlorotoluene	ND		1.0		ug/L			07/18/17 15:48	1
2-Hexanone	ND	*	10		ug/L			07/18/17 15:48	1
4-Chlorotoluene	ND		1.0		ug/L			07/18/17 15:48	1
4-Isopropyltoluene	ND		1.0		ug/L			07/18/17 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			07/18/17 15:48	1
Benzene	ND		1.0		ug/L			07/18/17 15:48	1
Bromobenzene	ND		1.0		ug/L			07/18/17 15:48	1
Bromoform	ND		1.0		ug/L			07/18/17 15:48	1
Bromomethane	ND		2.0		ug/L			07/18/17 15:48	1
Carbon disulfide	ND		10		ug/L			07/18/17 15:48	1
Carbon tetrachloride	ND		1.0		ug/L			07/18/17 15:48	1
Chlorobenzene	ND		1.0		ug/L			07/18/17 15:48	1
Chlorobromomethane	ND		1.0		ug/L			07/18/17 15:48	1
Chlorodibromomethane	ND		0.50		ug/L			07/18/17 15:48	1
Chloroethane	ND		2.0		ug/L			07/18/17 15:48	1
Chloroform	ND		1.0		ug/L			07/18/17 15:48	1
Chloromethane	ND		2.0		ug/L			07/18/17 15:48	1
cis-1,2-Dichloroethene	3.0		1.0		ug/L			07/18/17 15:48	1
cis-1,3-Dichloropropane	ND		0.40		ug/L			07/18/17 15:48	1
Dichlorobromomethane	ND		0.50		ug/L			07/18/17 15:48	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			07/18/17 15:48	1
Ethyl ether	ND		1.0		ug/L			07/18/17 15:48	1
Ethylbenzene	4.4		1.0		ug/L			07/18/17 15:48	1
Ethylene Dibromide	ND		1.0		ug/L			07/18/17 15:48	1
Hexachlorobutadiene	ND		0.40		ug/L			07/18/17 15:48	1
Isopropyl ether	ND		10		ug/L			07/18/17 15:48	1
Isopropylbenzene	ND		1.0		ug/L			07/18/17 15:48	1

TestAmerica Buffalo



Client Sample Results

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

TestAmerica Job ID: 480-120884-1

Client Sample ID: MW-263M-20170711

Lab Sample ID: 480-120884-1

Date Collected: 07/11/17 09:35

Matrix: Water

Date Received: 07/12/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		1.0		ug/L			07/18/17 15:48	1
Methylene Chloride	ND		1.0		ug/L			07/18/17 15:48	1
m-Xylene & p-Xylene	16		2.0		ug/L			07/18/17 15:48	1
Naphthalene	ND		5.0		ug/L			07/18/17 15:48	1
n-Butylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
N-Propylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
o-Xylene	6.1		1.0		ug/L			07/18/17 15:48	1
sec-Butylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
Styrene	ND		1.0		ug/L			07/18/17 15:48	1
Tert-amyl methyl ether	ND		5.0		ug/L			07/18/17 15:48	1
Tert-butyl ethyl ether	ND		5.0		ug/L			07/18/17 15:48	1
tert-Butylbenzene	ND		1.0		ug/L			07/18/17 15:48	1
Tetrachloroethene	ND		1.0		ug/L			07/18/17 15:48	1
Tetrahydrofuran	31		10		ug/L			07/18/17 15:48	1
Toluene	5.7		1.0		ug/L			07/18/17 15:48	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/18/17 15:48	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			07/18/17 15:48	1
Trichloroethene	1.3		1.0		ug/L			07/18/17 15:48	1
Trichlorofluoromethane	ND		1.0		ug/L			07/18/17 15:48	1
Vinyl chloride	2.1		1.0		ug/L			07/18/17 15:48	1
Dibromomethane	ND		1.0		ug/L			07/18/17 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	101		70 - 130		07/18/17 15:48	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	103		70 - 130		07/18/17 15:48	1
<i>4-Bromofluorobenzene (Surr)</i>	98		70 - 130		07/18/17 15:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	600		100		ug/L			07/20/17 02:30	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	99		70 - 130		07/20/17 02:30	2
<i>1,2-Dichloroethane-d4 (Surr)</i>	99		70 - 130		07/20/17 02:30	2
<i>4-Bromofluorobenzene (Surr)</i>	103		70 - 130		07/20/17 02:30	2

Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	380		0.050		mg/L		07/13/17 08:50	07/13/17 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82		5.0		mg/L			07/14/17 21:44	10
Sulfate	ND		20		mg/L			07/14/17 21:44	10
Ammonia	0.76		0.20		mg/L		07/13/17 14:42	07/13/17 17:40	1
Nitrate as N	ND		0.050		mg/L			07/12/17 21:27	1
TOC Result 1	970		20		mg/L			07/19/17 02:57	20
TOC Result 2	1000		20		mg/L			07/19/17 02:57	20
Total Organic Carbon - Duplicates	980		20		mg/L			07/19/17 02:57	20
Alkalinity, Total	800		5.0		mg/L			07/13/17 23:34	1
ortho-Phosphate	0.10		0.020		mg/L			07/12/17 22:00	1

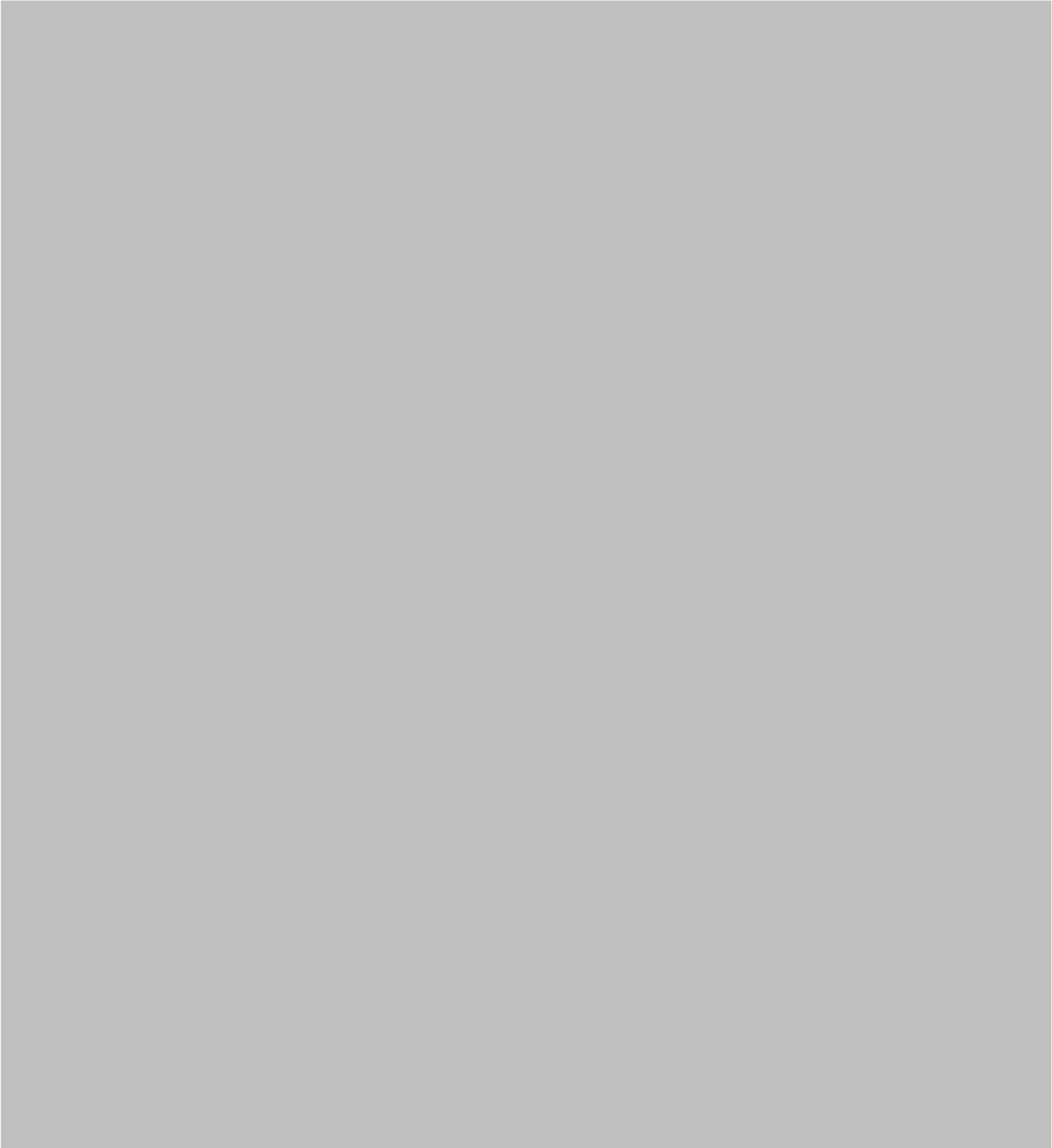
TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.7	HF	0.1		SU			07/13/17 11:22	1
Temperature	21.0	HF	0.001		Degrees C			07/13/17 11:22	1



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Client Sample Results

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

TestAmerica Job ID: 480-120884-1



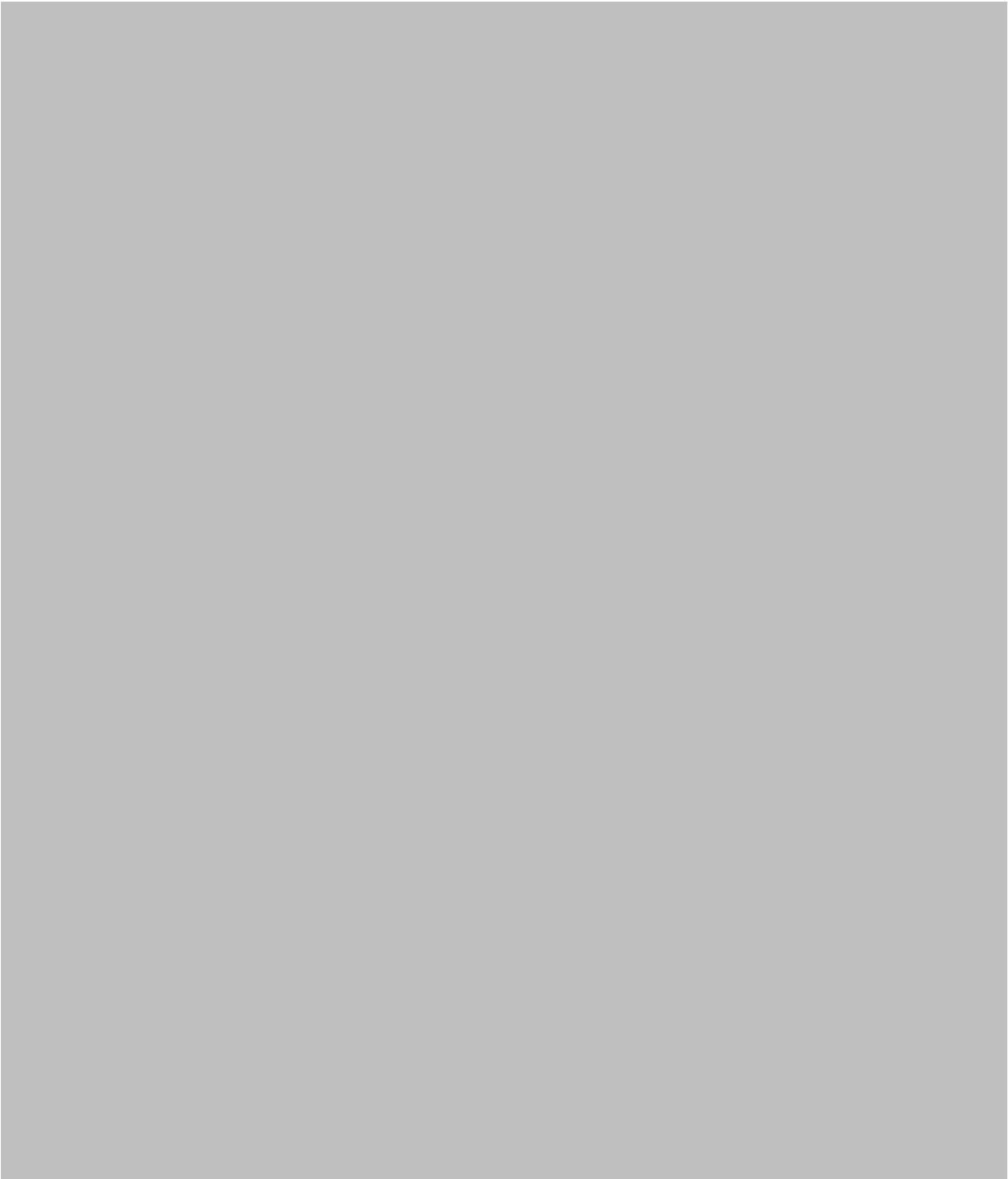
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TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1



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TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1



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Client Sample Results

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

TestAmerica Job ID: 480-120884-1



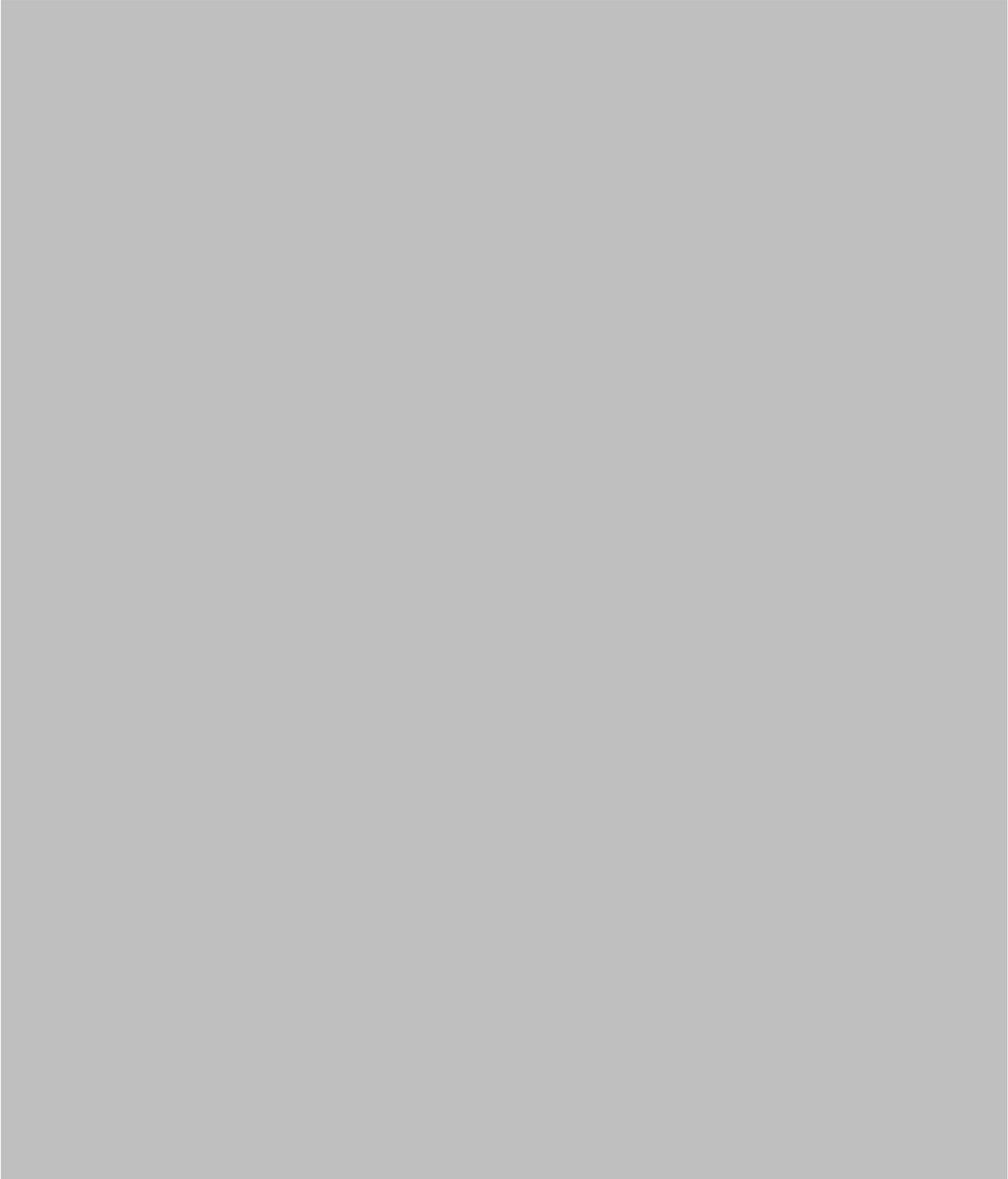
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TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1



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TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1

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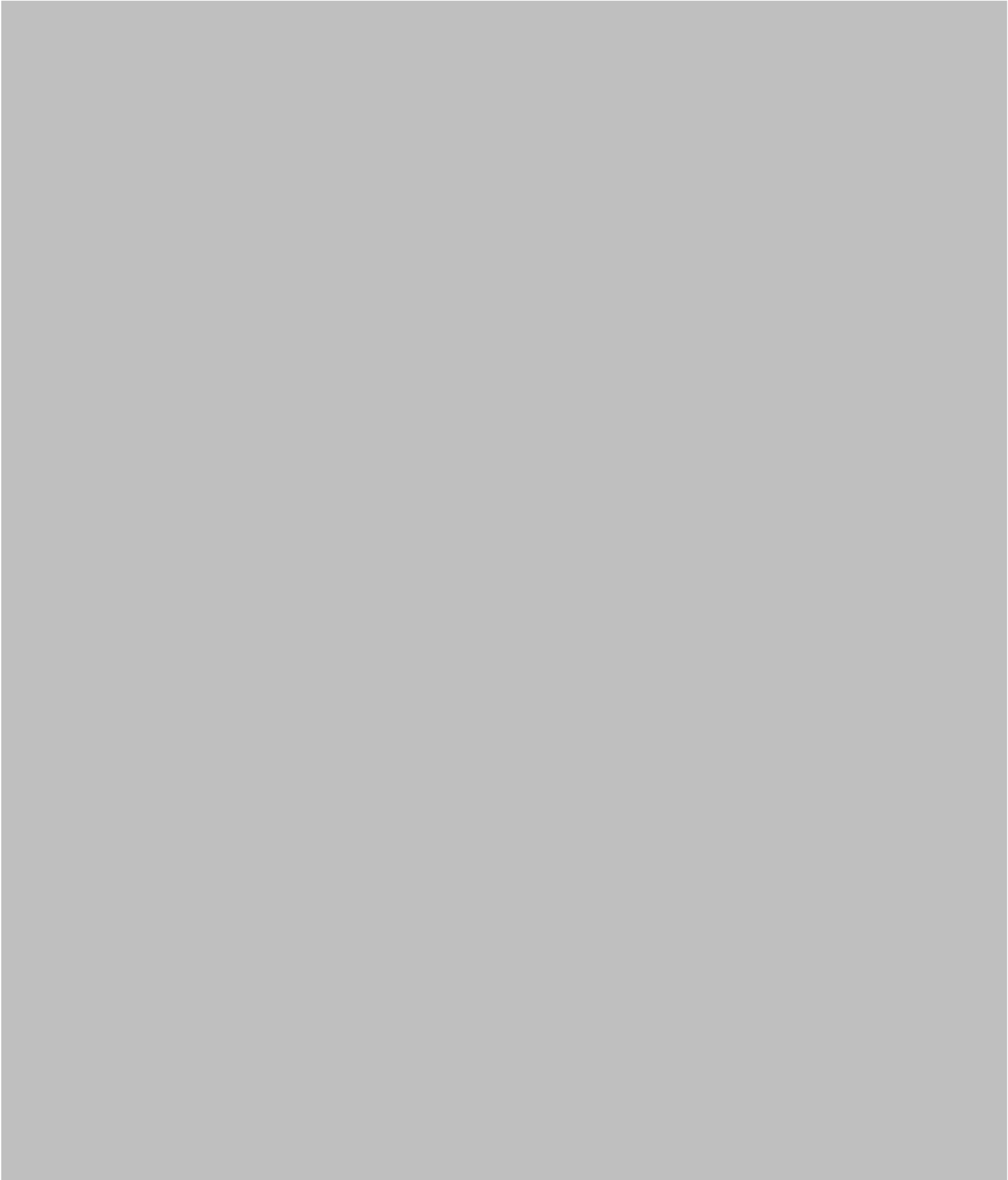


TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1

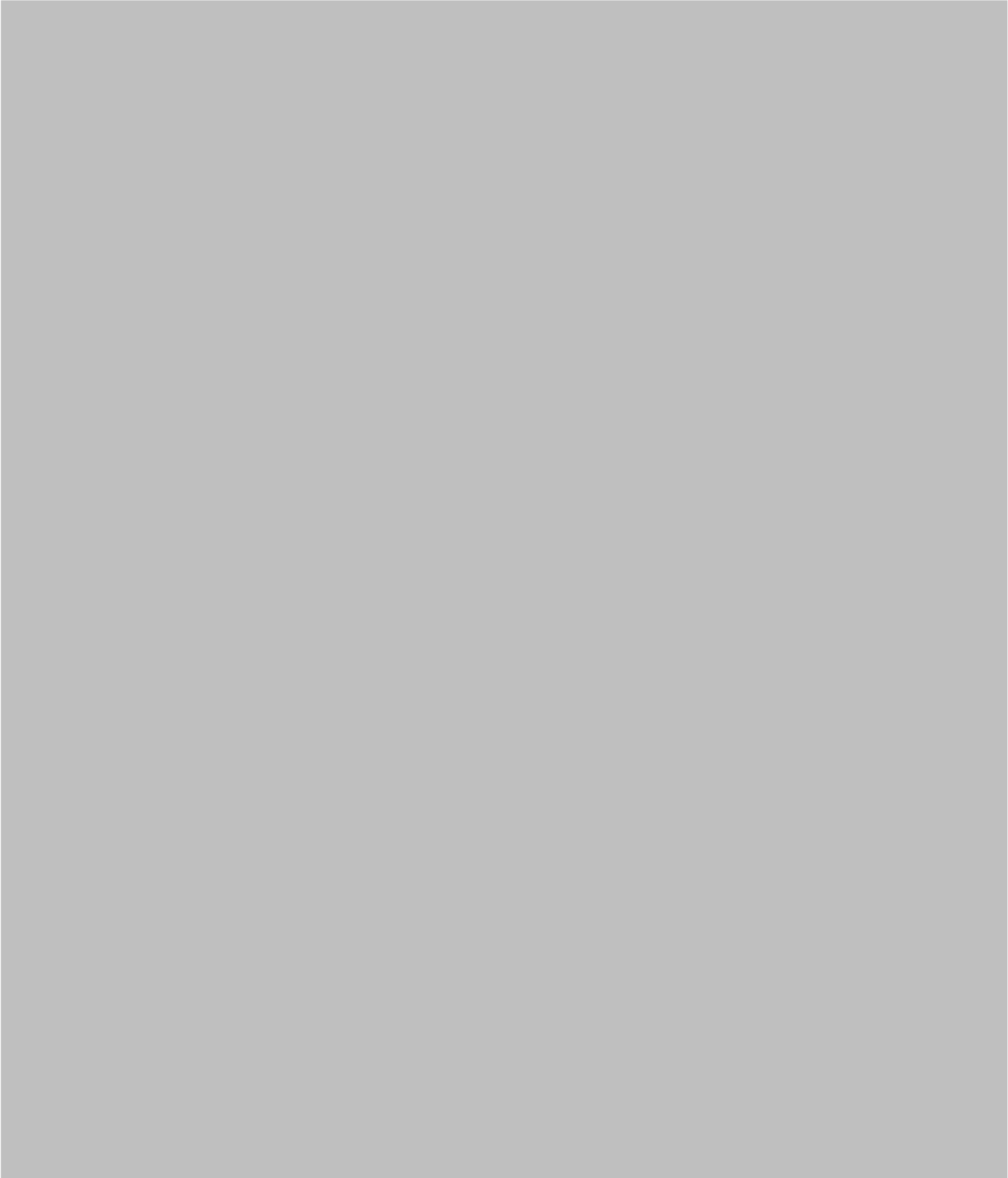


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Client Sample Results

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

TestAmerica Job ID: 480-120884-1



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TestAmerica Buffalo

Client Sample Results

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

TestAmerica Job ID: 480-120884-1



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Surrogate Summary

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

TestAmerica Job ID: 480-120884-1

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)	12DCE (70-130)	BFB (70-130)
480-120884-1	MW-263M-20170711	101	103	98
480-120884-1 - DL	MW-263M-20170711	99	99	103

Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367425/7

Matrix: Water

Analysis Batch: 367425

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			07/18/17 13:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/18/17 13:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/18/17 13:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/18/17 13:36	1
1,1-Dichloroethane	ND		1.0		ug/L			07/18/17 13:36	1
1,1-Dichloroethene	ND		1.0		ug/L			07/18/17 13:36	1
1,1-Dichloropropene	ND		1.0		ug/L			07/18/17 13:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			07/18/17 13:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/18/17 13:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,2-Dichloroethane	ND		1.0		ug/L			07/18/17 13:36	1
1,2-Dichloropropane	ND		1.0		ug/L			07/18/17 13:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,3-Dichloropropane	ND		1.0		ug/L			07/18/17 13:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
1,4-Dioxane	ND		50		ug/L			07/18/17 13:36	1
2,2-Dichloropropane	ND		1.0		ug/L			07/18/17 13:36	1
2-Butanone (MEK)	ND		10		ug/L			07/18/17 13:36	1
2-Chlorotoluene	ND		1.0		ug/L			07/18/17 13:36	1
2-Hexanone	ND		10		ug/L			07/18/17 13:36	1
4-Chlorotoluene	ND		1.0		ug/L			07/18/17 13:36	1
4-Isopropyltoluene	ND		1.0		ug/L			07/18/17 13:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			07/18/17 13:36	1
Acetone	ND		50		ug/L			07/18/17 13:36	1
Benzene	ND		1.0		ug/L			07/18/17 13:36	1
Bromobenzene	ND		1.0		ug/L			07/18/17 13:36	1
Bromoform	ND		1.0		ug/L			07/18/17 13:36	1
Bromomethane	ND		2.0		ug/L			07/18/17 13:36	1
Carbon disulfide	ND		10		ug/L			07/18/17 13:36	1
Carbon tetrachloride	ND		1.0		ug/L			07/18/17 13:36	1
Chlorobenzene	ND		1.0		ug/L			07/18/17 13:36	1
Chlorobromomethane	ND		1.0		ug/L			07/18/17 13:36	1
Chlorodibromomethane	ND		0.50		ug/L			07/18/17 13:36	1
Chloroethane	ND		2.0		ug/L			07/18/17 13:36	1
Chloroform	ND		1.0		ug/L			07/18/17 13:36	1
Chloromethane	ND		2.0		ug/L			07/18/17 13:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/18/17 13:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			07/18/17 13:36	1
Dichlorobromomethane	ND		0.50		ug/L			07/18/17 13:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/18/17 13:36	1
Ethyl ether	ND		1.0		ug/L			07/18/17 13:36	1
Ethylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
Ethylene Dibromide	ND		1.0		ug/L			07/18/17 13:36	1
Hexachlorobutadiene	ND		0.40		ug/L			07/18/17 13:36	1

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367425/7
Matrix: Water
Analysis Batch: 367425

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			07/18/17 13:36	1
Isopropylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/18/17 13:36	1
Methylene Chloride	ND		1.0		ug/L			07/18/17 13:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/18/17 13:36	1
Naphthalene	ND		5.0		ug/L			07/18/17 13:36	1
n-Butylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
N-Propylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
o-Xylene	ND		1.0		ug/L			07/18/17 13:36	1
sec-Butylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
Styrene	ND		1.0		ug/L			07/18/17 13:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			07/18/17 13:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			07/18/17 13:36	1
tert-Butylbenzene	ND		1.0		ug/L			07/18/17 13:36	1
Tetrachloroethene	ND		1.0		ug/L			07/18/17 13:36	1
Tetrahydrofuran	ND		10		ug/L			07/18/17 13:36	1
Toluene	ND		1.0		ug/L			07/18/17 13:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/18/17 13:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			07/18/17 13:36	1
Trichloroethene	ND		1.0		ug/L			07/18/17 13:36	1
Trichlorofluoromethane	ND		1.0		ug/L			07/18/17 13:36	1
Vinyl chloride	ND		1.0		ug/L			07/18/17 13:36	1
Dibromomethane	ND		1.0		ug/L			07/18/17 13:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		07/18/17 13:36	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		07/18/17 13:36	1
4-Bromofluorobenzene (Surr)	96		70 - 130		07/18/17 13:36	1

Lab Sample ID: LCS 480-367425/26
Matrix: Water
Analysis Batch: 367425

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	23.7		ug/L		95	70 - 130
1,1,1-Trichloroethane	25.0	19.9		ug/L		79	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	23.4		ug/L		94	70 - 130
1,1-Dichloroethane	25.0	21.4		ug/L		86	70 - 130
1,1-Dichloroethene	25.0	19.7		ug/L		79	70 - 130
1,1-Dichloropropene	25.0	19.9		ug/L		80	70 - 130
1,2,3-Trichlorobenzene	25.0	23.9		ug/L		96	70 - 130
1,2,3-Trichloropropane	25.0	25.1		ug/L		101	70 - 130
1,2,4-Trichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	25.0	23.4		ug/L		94	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.2		ug/L		97	70 - 130
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	70 - 130
1,2-Dichloroethane	25.0	21.9		ug/L		87	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367425/26

Matrix: Water

Analysis Batch: 367425

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	21.9		ug/L		88	70 - 130
1,3,5-Trimethylbenzene	25.0	23.3		ug/L		93	70 - 130
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	70 - 130
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130
1,4-Dichlorobenzene	25.0	23.6		ug/L		94	70 - 130
1,4-Dioxane	500	471		ug/L		94	70 - 130
2,2-Dichloropropane	25.0	21.3		ug/L		85	70 - 130
2-Butanone (MEK)	125	211	*	ug/L		169	70 - 130
2-Chlorotoluene	25.0	26.1		ug/L		104	70 - 130
2-Hexanone	125	178	*	ug/L		142	70 - 130
4-Chlorotoluene	25.0	24.4		ug/L		98	70 - 130
4-Isopropyltoluene	25.0	23.1		ug/L		92	70 - 130
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	70 - 130
Acetone	125	122		ug/L		98	70 - 130
Benzene	25.0	20.9		ug/L		84	70 - 130
Bromobenzene	25.0	23.8		ug/L		95	70 - 130
Bromoform	25.0	24.1		ug/L		97	70 - 130
Bromomethane	25.0	21.0		ug/L		84	70 - 130
Carbon disulfide	25.0	20.1		ug/L		81	70 - 130
Carbon tetrachloride	25.0	19.9		ug/L		80	70 - 130
Chlorobenzene	25.0	23.1		ug/L		92	70 - 130
Chlorobromomethane	25.0	22.5		ug/L		90	70 - 130
Chlorodibromomethane	25.0	23.5		ug/L		94	70 - 130
Chloroethane	25.0	20.0		ug/L		80	70 - 130
Chloroform	25.0	21.3		ug/L		85	70 - 130
Chloromethane	25.0	18.9		ug/L		76	70 - 130
cis-1,2-Dichloroethene	25.0	21.2		ug/L		85	70 - 130
cis-1,3-Dichloropropene	25.0	22.1		ug/L		89	70 - 130
Dichlorobromomethane	25.0	21.8		ug/L		87	70 - 130
Dichlorodifluoromethane	25.0	17.6		ug/L		70	70 - 130
Ethyl ether	25.0	21.6		ug/L		86	70 - 130
Ethylbenzene	25.0	22.7		ug/L		91	70 - 130
Ethylene Dibromide	25.0	23.6		ug/L		94	70 - 130
Hexachlorobutadiene	25.0	20.3		ug/L		81	70 - 130
Isopropyl ether	25.0	23.3		ug/L		93	70 - 130
Isopropylbenzene	25.0	22.6		ug/L		90	70 - 130
Methyl tert-butyl ether	25.0	21.5		ug/L		86	70 - 130
Methylene Chloride	25.0	21.8		ug/L		87	70 - 130
m-Xylene & p-Xylene	25.0	22.6		ug/L		90	70 - 130
Naphthalene	25.0	24.7		ug/L		99	70 - 130
n-Butylbenzene	25.0	23.3		ug/L		93	70 - 130
N-Propylbenzene	25.0	23.2		ug/L		93	70 - 130
o-Xylene	25.0	23.2		ug/L		93	70 - 130
sec-Butylbenzene	25.0	22.4		ug/L		90	70 - 130
Styrene	25.0	23.1		ug/L		92	70 - 130
Tert-amyl methyl ether	25.0	24.4		ug/L		97	70 - 130
Tert-butyl ethyl ether	25.0	23.3		ug/L		93	70 - 130
tert-Butylbenzene	25.0	22.0		ug/L		88	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367425/26

Matrix: Water

Analysis Batch: 367425

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	22.8		ug/L		91	70 - 130
Tetrahydrofuran	50.0	42.4		ug/L		85	70 - 130
Toluene	25.0	22.4		ug/L		90	70 - 130
trans-1,2-Dichloroethene	25.0	19.9		ug/L		80	70 - 130
trans-1,3-Dichloropropene	25.0	23.4		ug/L		94	70 - 130
Trichloroethene	25.0	21.0		ug/L		84	70 - 130
Trichlorofluoromethane	25.0	19.4		ug/L		77	70 - 130
Vinyl chloride	25.0	18.8		ug/L		75	70 - 130
Dibromomethane	25.0	22.2		ug/L		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 480-367425/24

Matrix: Water

Analysis Batch: 367425

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	22.9		ug/L		92	70 - 130	3	20
1,1,1-Trichloroethane	25.0	18.9		ug/L		76	70 - 130	5	20
1,1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	70 - 130	4	20
1,1,1,2-Trichloroethane	25.0	23.4		ug/L		93	70 - 130	0	20
1,1-Dichloroethane	25.0	20.6		ug/L		82	70 - 130	4	20
1,1-Dichloroethene	25.0	18.5		ug/L		74	70 - 130	6	20
1,1-Dichloropropene	25.0	18.8		ug/L		75	70 - 130	6	20
1,2,3-Trichlorobenzene	25.0	23.6		ug/L		94	70 - 130	2	20
1,2,3-Trichloropropane	25.0	25.1		ug/L		100	70 - 130	0	20
1,2,4-Trichlorobenzene	25.0	23.4		ug/L		94	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	22.4		ug/L		90	70 - 130	4	20
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	70 - 130	1	20
1,2-Dichlorobenzene	25.0	23.3		ug/L		93	70 - 130	2	20
1,2-Dichloroethane	25.0	21.3		ug/L		85	70 - 130	2	20
1,2-Dichloropropane	25.0	21.2		ug/L		85	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	22.4		ug/L		90	70 - 130	4	20
1,3-Dichlorobenzene	25.0	22.9		ug/L		92	70 - 130	5	20
1,3-Dichloropropane	25.0	23.8		ug/L		95	70 - 130	0	20
1,4-Dichlorobenzene	25.0	22.7		ug/L		91	70 - 130	4	20
1,4-Dioxane	500	505		ug/L		101	70 - 130	7	20
2,2-Dichloropropane	25.0	20.2		ug/L		81	70 - 130	6	20
2-Butanone (MEK)	125	205	*	ug/L		164	70 - 130	3	20
2-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	7	20
2-Hexanone	125	175	*	ug/L		140	70 - 130	2	20
4-Chlorotoluene	25.0	23.6		ug/L		95	70 - 130	3	20
4-Isopropyltoluene	25.0	22.1		ug/L		88	70 - 130	5	20
4-Methyl-2-pentanone (MIBK)	125	120		ug/L		96	70 - 130	0	20
Acetone	125	115		ug/L		92	70 - 130	6	20

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCSD 480-367425/24

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 367425

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	20.3		ug/L		81	70 - 130	3	20
Bromobenzene	25.0	23.0		ug/L		92	70 - 130	3	20
Bromoform	25.0	24.1		ug/L		96	70 - 130	0	20
Bromomethane	25.0	20.4		ug/L		82	70 - 130	3	20
Carbon disulfide	25.0	19.3		ug/L		77	70 - 130	4	20
Carbon tetrachloride	25.0	18.7		ug/L		75	70 - 130	6	20
Chlorobenzene	25.0	22.8		ug/L		91	70 - 130	2	20
Chlorobromomethane	25.0	21.6		ug/L		87	70 - 130	4	20
Chlorodibromomethane	25.0	23.4		ug/L		94	70 - 130	0	20
Chloroethane	25.0	19.0		ug/L		76	70 - 130	5	20
Chloroform	25.0	20.8		ug/L		83	70 - 130	3	20
Chloromethane	25.0	17.7		ug/L		71	70 - 130	6	20
cis-1,2-Dichloroethene	25.0	20.5		ug/L		82	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	21.1		ug/L		84	70 - 130	5	20
Dichlorobromomethane	25.0	21.0		ug/L		84	70 - 130	4	20
Dichlorodifluoromethane	25.0	16.6	*	ug/L		66	70 - 130	6	20
Ethyl ether	25.0	21.3		ug/L		85	70 - 130	1	20
Ethylbenzene	25.0	21.9		ug/L		88	70 - 130	3	20
Ethylene Dibromide	25.0	24.0		ug/L		96	70 - 130	2	20
Hexachlorobutadiene	25.0	19.7		ug/L		79	70 - 130	3	20
Isopropyl ether	25.0	22.4		ug/L		90	70 - 130	4	20
Isopropylbenzene	25.0	21.7		ug/L		87	70 - 130	4	20
Methyl tert-butyl ether	25.0	21.1		ug/L		84	70 - 130	2	20
Methylene Chloride	25.0	21.1		ug/L		84	70 - 130	3	20
m-Xylene & p-Xylene	25.0	22.0		ug/L		88	70 - 130	3	20
Naphthalene	25.0	24.2		ug/L		97	70 - 130	2	20
n-Butylbenzene	25.0	22.1		ug/L		88	70 - 130	5	20
N-Propylbenzene	25.0	22.3		ug/L		89	70 - 130	4	20
o-Xylene	25.0	22.6		ug/L		91	70 - 130	2	20
sec-Butylbenzene	25.0	21.3		ug/L		85	70 - 130	5	20
Styrene	25.0	22.3		ug/L		89	70 - 130	4	20
Tert-amyl methyl ether	25.0	23.7		ug/L		95	70 - 130	3	20
Tert-butyl ethyl ether	25.0	22.6		ug/L		90	70 - 130	3	20
tert-Butylbenzene	25.0	20.8		ug/L		83	70 - 130	6	20
Tetrachloroethene	25.0	23.4		ug/L		93	70 - 130	2	20
Tetrahydrofuran	50.0	41.5		ug/L		83	70 - 130	2	20
Toluene	25.0	22.0		ug/L		88	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	19.3		ug/L		77	70 - 130	3	20
trans-1,3-Dichloropropene	25.0	23.4		ug/L		93	70 - 130	0	20
Trichloroethene	25.0	19.9		ug/L		80	70 - 130	5	20
Trichlorofluoromethane	25.0	17.8		ug/L		71	70 - 130	9	20
Vinyl chloride	25.0	17.5		ug/L		70	70 - 130	7	20
Dibromomethane	25.0	22.0		ug/L		88	70 - 130	1	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		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: 480-120884-1

Lab Sample ID: MB 480-367645/6
 Matrix: Water
 Analysis Batch: 367645

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			07/19/17 11:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/17 11:37	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/19/17 11:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/17 11:37	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/17 11:37	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/17 11:37	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/17 11:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			07/19/17 11:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/17 11:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,2-Dichloroethane	ND		1.0		ug/L			07/19/17 11:37	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/17 11:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/17 11:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
1,4-Dioxane	ND		50		ug/L			07/19/17 11:37	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/17 11:37	1
2-Butanone (MEK)	ND		10		ug/L			07/19/17 11:37	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/17 11:37	1
2-Hexanone	ND		10		ug/L			07/19/17 11:37	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/17 11:37	1
4-Isopropyltoluene	ND		1.0		ug/L			07/19/17 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			07/19/17 11:37	1
Acetone	ND		50		ug/L			07/19/17 11:37	1
Benzene	ND		1.0		ug/L			07/19/17 11:37	1
Bromobenzene	ND		1.0		ug/L			07/19/17 11:37	1
Bromoform	ND		1.0		ug/L			07/19/17 11:37	1
Bromomethane	ND		2.0		ug/L			07/19/17 11:37	1
Carbon disulfide	ND		10		ug/L			07/19/17 11:37	1
Carbon tetrachloride	ND		1.0		ug/L			07/19/17 11:37	1
Chlorobenzene	ND		1.0		ug/L			07/19/17 11:37	1
Chlorobromomethane	ND		1.0		ug/L			07/19/17 11:37	1
Chlorodibromomethane	ND		0.50		ug/L			07/19/17 11:37	1
Chloroethane	ND		2.0		ug/L			07/19/17 11:37	1
Chloroform	ND		1.0		ug/L			07/19/17 11:37	1
Chloromethane	ND		2.0		ug/L			07/19/17 11:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/17 11:37	1
cis-1,3-Dichloropropane	ND		0.40		ug/L			07/19/17 11:37	1
Dichlorobromomethane	ND		0.50		ug/L			07/19/17 11:37	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/17 11:37	1
Ethyl ether	ND		1.0		ug/L			07/19/17 11:37	1
Ethylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
Ethylene Dibromide	ND		1.0		ug/L			07/19/17 11:37	1
Hexachlorobutadiene	ND		0.40		ug/L			07/19/17 11:37	1
Isopropyl ether	ND		10		ug/L			07/19/17 11:37	1
Isopropylbenzene	ND		1.0		ug/L			07/19/17 11:37	1

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367645/6

Matrix: Water

Analysis Batch: 367645

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			07/19/17 11:37	1
Methylene Chloride	ND		1.0		ug/L			07/19/17 11:37	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/19/17 11:37	1
Naphthalene	ND		5.0		ug/L			07/19/17 11:37	1
n-Butylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
N-Propylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
o-Xylene	ND		1.0		ug/L			07/19/17 11:37	1
sec-Butylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
Styrene	ND		1.0		ug/L			07/19/17 11:37	1
Tert-amyl methyl ether	ND		5.0		ug/L			07/19/17 11:37	1
Tert-butyl ethyl ether	ND		5.0		ug/L			07/19/17 11:37	1
tert-Butylbenzene	ND		1.0		ug/L			07/19/17 11:37	1
Tetrachloroethene	ND		1.0		ug/L			07/19/17 11:37	1
Tetrahydrofuran	ND		10		ug/L			07/19/17 11:37	1
Toluene	ND		1.0		ug/L			07/19/17 11:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/19/17 11:37	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			07/19/17 11:37	1
Trichloroethene	ND		1.0		ug/L			07/19/17 11:37	1
Trichlorofluoromethane	ND		1.0		ug/L			07/19/17 11:37	1
Vinyl chloride	ND		1.0		ug/L			07/19/17 11:37	1
Dibromomethane	ND		1.0		ug/L			07/19/17 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		07/19/17 11:37	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		07/19/17 11:37	1
4-Bromofluorobenzene (Surr)	98		70 - 130		07/19/17 11:37	1

Lab Sample ID: LCS 480-367645/4

Matrix: Water

Analysis Batch: 367645

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	22.2		ug/L		89	70 - 130
1,1,1-Trichloroethane	25.0	19.9		ug/L		80	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	70 - 130
1,1-Dichloroethane	25.0	23.1		ug/L		92	70 - 130
1,1-Dichloroethene	25.0	19.8		ug/L		79	70 - 130
1,1-Dichloropropene	25.0	19.7		ug/L		79	70 - 130
1,2,3-Trichlorobenzene	25.0	24.3		ug/L		97	70 - 130
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	25.0	23.9		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	25.0	23.1		ug/L		92	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	70 - 130
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	24.1		ug/L		96	70 - 130
1,2-Dichloropropane	25.0	23.2		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	25.0	22.9		ug/L		92	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367645/4

Matrix: Water

Analysis Batch: 367645

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	24.1		ug/L		97	70 - 130
1,3-Dichloropropane	25.0	24.4		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,4-Dioxane	500	537		ug/L		107	70 - 130
2,2-Dichloropropane	25.0	21.1		ug/L		84	70 - 130
2-Butanone (MEK)	125	126		ug/L		100	70 - 130
2-Chlorotoluene	25.0	22.1		ug/L		88	70 - 130
2-Hexanone	125	134		ug/L		107	70 - 130
4-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130
4-Isopropyltoluene	25.0	21.6		ug/L		86	70 - 130
4-Methyl-2-pentanone (MIBK)	125	131		ug/L		105	70 - 130
Acetone	125	137		ug/L		110	70 - 130
Benzene	25.0	21.7		ug/L		87	70 - 130
Bromobenzene	25.0	23.2		ug/L		93	70 - 130
Bromoform	25.0	26.0		ug/L		104	70 - 130
Bromomethane	25.0	23.2		ug/L		93	70 - 130
Carbon disulfide	25.0	20.1		ug/L		80	70 - 130
Carbon tetrachloride	25.0	18.7		ug/L		75	70 - 130
Chlorobenzene	25.0	22.2		ug/L		89	70 - 130
Chlorobromomethane	25.0	23.7		ug/L		95	70 - 130
Chlorodibromomethane	25.0	23.8		ug/L		95	70 - 130
Chloroethane	25.0	21.3		ug/L		85	70 - 130
Chloroform	25.0	22.2		ug/L		89	70 - 130
Chloromethane	25.0	20.6		ug/L		83	70 - 130
cis-1,2-Dichloroethene	25.0	22.8		ug/L		91	70 - 130
cis-1,3-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
Dichlorobromomethane	25.0	23.8		ug/L		95	70 - 130
Dichlorodifluoromethane	25.0	16.9 *		ug/L		67	70 - 130
Ethyl ether	25.0	23.2		ug/L		93	70 - 130
Ethylbenzene	25.0	21.9		ug/L		88	70 - 130
Ethylene Dibromide	25.0	24.5		ug/L		98	70 - 130
Hexachlorobutadiene	25.0	20.7		ug/L		83	70 - 130
Isopropyl ether	25.0	25.5		ug/L		102	70 - 130
Isopropylbenzene	25.0	21.5		ug/L		86	70 - 130
Methyl tert-butyl ether	25.0	25.4		ug/L		101	70 - 130
Methylene Chloride	25.0	23.7		ug/L		95	70 - 130
m-Xylene & p-Xylene	25.0	22.3		ug/L		89	70 - 130
Naphthalene	25.0	26.8		ug/L		107	70 - 130
n-Butylbenzene	25.0	21.4		ug/L		86	70 - 130
N-Propylbenzene	25.0	21.9		ug/L		88	70 - 130
o-Xylene	25.0	22.9		ug/L		92	70 - 130
sec-Butylbenzene	25.0	21.2		ug/L		85	70 - 130
Styrene	25.0	23.2		ug/L		93	70 - 130
Tert-amyl methyl ether	25.0	25.0		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	24.2		ug/L		97	70 - 130
tert-Butylbenzene	25.0	21.7		ug/L		87	70 - 130
Tetrachloroethene	25.0	20.9		ug/L		84	70 - 130
Tetrahydrofuran	50.0	75.3 *		ug/L		151	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367645/4

Matrix: Water

Analysis Batch: 367645

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	22.1		ug/L		88	70 - 130
trans-1,2-Dichloroethene	25.0	21.5		ug/L		86	70 - 130
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 130
Trichloroethene	25.0	21.8		ug/L		87	70 - 130
Trichlorofluoromethane	25.0	18.6		ug/L		74	70 - 130
Vinyl chloride	25.0	19.0		ug/L		76	70 - 130
Dibromomethane	25.0	25.2		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 480-367645/7

Matrix: Water

Analysis Batch: 367645

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	23.8		ug/L		95	70 - 130	7	20
1,1,1-Trichloroethane	25.0	21.9		ug/L		88	70 - 130	10	20
1,1,1,2,2-Tetrachloroethane	25.0	26.4		ug/L		105	70 - 130	0	20
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	70 - 130	7	20
1,1-Dichloroethane	25.0	24.7		ug/L		99	70 - 130	7	20
1,1-Dichloroethene	25.0	21.3		ug/L		85	70 - 130	8	20
1,1-Dichloropropene	25.0	21.0		ug/L		84	70 - 130	7	20
1,2,3-Trichlorobenzene	25.0	24.8		ug/L		99	70 - 130	2	20
1,2,3-Trichloropropane	25.0	24.9		ug/L		100	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	70 - 130	0	20
1,2,4-Trimethylbenzene	25.0	23.5		ug/L		94	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	27.9		ug/L		111	70 - 130	7	20
1,2-Dichlorobenzene	25.0	24.4		ug/L		97	70 - 130	1	20
1,2-Dichloroethane	25.0	24.7		ug/L		99	70 - 130	3	20
1,2-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	9	20
1,3,5-Trimethylbenzene	25.0	22.9		ug/L		92	70 - 130	0	20
1,3-Dichlorobenzene	25.0	24.7		ug/L		99	70 - 130	2	20
1,3-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	1	20
1,4-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130	1	20
1,4-Dioxane	500	622		ug/L		124	70 - 130	15	20
2,2-Dichloropropane	25.0	22.8		ug/L		91	70 - 130	8	20
2-Butanone (MEK)	125	126		ug/L		101	70 - 130	0	20
2-Chlorotoluene	25.0	23.7		ug/L		95	70 - 130	7	20
2-Hexanone	125	137		ug/L		110	70 - 130	2	20
4-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130	3	20
4-Isopropyltoluene	25.0	22.4		ug/L		90	70 - 130	4	20
4-Methyl-2-pentanone (MIBK)	125	131		ug/L		105	70 - 130	1	20
Acetone	125	146		ug/L		117	70 - 130	6	20
Benzene	25.0	23.6		ug/L		94	70 - 130	8	20
Bromobenzene	25.0	23.6		ug/L		94	70 - 130	2	20

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCSD 480-367645/7

Matrix: Water

Analysis Batch: 367645

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	25.1		ug/L		100	70 - 130	3	20
Bromomethane	25.0	24.3		ug/L		97	70 - 130	5	20
Carbon disulfide	25.0	22.6		ug/L		91	70 - 130	12	20
Carbon tetrachloride	25.0	21.1		ug/L		84	70 - 130	12	20
Chlorobenzene	25.0	23.7		ug/L		95	70 - 130	7	20
Chlorobromomethane	25.0	25.2		ug/L		101	70 - 130	6	20
Chlorodibromomethane	25.0	24.0		ug/L		96	70 - 130	1	20
Chloroethane	25.0	23.7		ug/L		95	70 - 130	11	20
Chloroform	25.0	24.4		ug/L		98	70 - 130	10	20
Chloromethane	25.0	21.8		ug/L		87	70 - 130	6	20
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	6	20
cis-1,3-Dichloropropene	25.0	25.9		ug/L		103	70 - 130	6	20
Dichlorobromomethane	25.0	24.4		ug/L		98	70 - 130	3	20
Dichlorodifluoromethane	25.0	19.6		ug/L		78	70 - 130	15	20
Ethyl ether	25.0	24.4		ug/L		98	70 - 130	5	20
Ethylbenzene	25.0	23.0		ug/L		92	70 - 130	5	20
Ethylene Dibromide	25.0	23.9		ug/L		96	70 - 130	2	20
Hexachlorobutadiene	25.0	21.7		ug/L		87	70 - 130	5	20
Isopropyl ether	25.0	26.5		ug/L		106	70 - 130	4	20
Isopropylbenzene	25.0	22.3		ug/L		89	70 - 130	3	20
Methyl tert-butyl ether	25.0	25.5		ug/L		102	70 - 130	1	20
Methylene Chloride	25.0	23.2		ug/L		93	70 - 130	2	20
m-Xylene & p-Xylene	25.0	23.9		ug/L		96	70 - 130	7	20
Naphthalene	25.0	26.8		ug/L		107	70 - 130	0	20
n-Butylbenzene	25.0	22.8		ug/L		91	70 - 130	6	20
N-Propylbenzene	25.0	22.8		ug/L		91	70 - 130	4	20
o-Xylene	25.0	24.4		ug/L		98	70 - 130	6	20
sec-Butylbenzene	25.0	21.9		ug/L		88	70 - 130	3	20
Styrene	25.0	24.2		ug/L		97	70 - 130	4	20
Tert-amyl methyl ether	25.0	25.9		ug/L		104	70 - 130	4	20
Tert-butyl ethyl ether	25.0	25.3		ug/L		101	70 - 130	4	20
tert-Butylbenzene	25.0	23.3		ug/L		93	70 - 130	7	20
Tetrachloroethene	25.0	22.7		ug/L		91	70 - 130	8	20
Tetrahydrofuran	50.0	63.4		ug/L		127	70 - 130	17	20
Toluene	25.0	22.6		ug/L		90	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	70 - 130	12	20
trans-1,3-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	1	20
Trichloroethene	25.0	23.5		ug/L		94	70 - 130	7	20
Trichlorofluoromethane	25.0	19.9		ug/L		80	70 - 130	7	20
Vinyl chloride	25.0	21.3		ug/L		85	70 - 130	11	20
Dibromomethane	25.0	25.9		ug/L		104	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367779/7

Matrix: Water

Analysis Batch: 367779

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			07/19/17 22:19	1
1,1,1-Trichloroethane	ND		1.0		ug/L			07/19/17 22:19	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			07/19/17 22:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			07/19/17 22:19	1
1,1-Dichloroethane	ND		1.0		ug/L			07/19/17 22:19	1
1,1-Dichloroethene	ND		1.0		ug/L			07/19/17 22:19	1
1,1-Dichloropropene	ND		1.0		ug/L			07/19/17 22:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,2,3-Trichloropropane	ND		1.0		ug/L			07/19/17 22:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			07/19/17 22:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,2-Dichloroethane	ND		1.0		ug/L			07/19/17 22:19	1
1,2-Dichloropropane	ND		1.0		ug/L			07/19/17 22:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,3-Dichlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,3-Dichloropropane	ND		1.0		ug/L			07/19/17 22:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
1,4-Dioxane	ND		50		ug/L			07/19/17 22:19	1
2,2-Dichloropropane	ND		1.0		ug/L			07/19/17 22:19	1
2-Butanone (MEK)	ND		10		ug/L			07/19/17 22:19	1
2-Chlorotoluene	ND		1.0		ug/L			07/19/17 22:19	1
2-Hexanone	ND		10		ug/L			07/19/17 22:19	1
4-Chlorotoluene	ND		1.0		ug/L			07/19/17 22:19	1
4-Isopropyltoluene	ND		1.0		ug/L			07/19/17 22:19	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			07/19/17 22:19	1
Acetone	ND		50		ug/L			07/19/17 22:19	1
Benzene	ND		1.0		ug/L			07/19/17 22:19	1
Bromobenzene	ND		1.0		ug/L			07/19/17 22:19	1
Bromoform	ND		1.0		ug/L			07/19/17 22:19	1
Bromomethane	ND		2.0		ug/L			07/19/17 22:19	1
Carbon disulfide	ND		10		ug/L			07/19/17 22:19	1
Carbon tetrachloride	ND		1.0		ug/L			07/19/17 22:19	1
Chlorobenzene	ND		1.0		ug/L			07/19/17 22:19	1
Chlorobromomethane	ND		1.0		ug/L			07/19/17 22:19	1
Chlorodibromomethane	ND		0.50		ug/L			07/19/17 22:19	1
Chloroethane	ND		2.0		ug/L			07/19/17 22:19	1
Chloroform	ND		1.0		ug/L			07/19/17 22:19	1
Chloromethane	ND		2.0		ug/L			07/19/17 22:19	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			07/19/17 22:19	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			07/19/17 22:19	1
Dichlorobromomethane	ND		0.50		ug/L			07/19/17 22:19	1
Dichlorodifluoromethane	ND		1.0		ug/L			07/19/17 22:19	1
Ethyl ether	ND		1.0		ug/L			07/19/17 22:19	1
Ethylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
Ethylene Dibromide	ND		1.0		ug/L			07/19/17 22:19	1
Hexachlorobutadiene	ND		0.40		ug/L			07/19/17 22:19	1

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367779/7

Matrix: Water

Analysis Batch: 367779

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			07/19/17 22:19	1
Isopropylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
Methyl tert-butyl ether	ND		1.0		ug/L			07/19/17 22:19	1
Methylene Chloride	ND		1.0		ug/L			07/19/17 22:19	1
m-Xylene & p-Xylene	ND		2.0		ug/L			07/19/17 22:19	1
Naphthalene	ND		5.0		ug/L			07/19/17 22:19	1
n-Butylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
N-Propylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
o-Xylene	ND		1.0		ug/L			07/19/17 22:19	1
sec-Butylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
Styrene	ND		1.0		ug/L			07/19/17 22:19	1
Tert-amyl methyl ether	ND		5.0		ug/L			07/19/17 22:19	1
Tert-butyl ethyl ether	ND		5.0		ug/L			07/19/17 22:19	1
tert-Butylbenzene	ND		1.0		ug/L			07/19/17 22:19	1
Tetrachloroethene	ND		1.0		ug/L			07/19/17 22:19	1
Tetrahydrofuran	ND		10		ug/L			07/19/17 22:19	1
Toluene	ND		1.0		ug/L			07/19/17 22:19	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			07/19/17 22:19	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			07/19/17 22:19	1
Trichloroethene	ND		1.0		ug/L			07/19/17 22:19	1
Trichlorofluoromethane	ND		1.0		ug/L			07/19/17 22:19	1
Vinyl chloride	ND		1.0		ug/L			07/19/17 22:19	1
Dibromomethane	ND		1.0		ug/L			07/19/17 22:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		07/19/17 22:19	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		07/19/17 22:19	1
4-Bromofluorobenzene (Surr)	100		70 - 130		07/19/17 22:19	1

Lab Sample ID: LCS 480-367779/4

Matrix: Water

Analysis Batch: 367779

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	21.9		ug/L		88	70 - 130
1,1,1-Trichloroethane	25.0	23.0		ug/L		92	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.4		ug/L		102	70 - 130
1,1,2-Trichloroethane	25.0	23.4		ug/L		94	70 - 130
1,1-Dichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
1,1-Dichloropropene	25.0	23.7		ug/L		95	70 - 130
1,2,3-Trichlorobenzene	25.0	23.6		ug/L		95	70 - 130
1,2,3-Trichloropropane	25.0	23.1		ug/L		92	70 - 130
1,2,4-Trichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		98	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	21.5		ug/L		86	70 - 130
1,2-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130
1,2-Dichloroethane	25.0	23.0		ug/L		92	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367779/4

Matrix: Water

Analysis Batch: 367779

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	23.7		ug/L		95	70 - 130
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		96	70 - 130
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130
1,3-Dichloropropane	25.0	22.3		ug/L		89	70 - 130
1,4-Dichlorobenzene	25.0	23.6		ug/L		95	70 - 130
1,4-Dioxane	500	399		ug/L		80	70 - 130
2,2-Dichloropropane	25.0	24.5		ug/L		98	70 - 130
2-Butanone (MEK)	125	113		ug/L		90	70 - 130
2-Chlorotoluene	25.0	23.6		ug/L		95	70 - 130
2-Hexanone	125	119		ug/L		95	70 - 130
4-Chlorotoluene	25.0	25.1		ug/L		100	70 - 130
4-Isopropyltoluene	25.0	24.1		ug/L		96	70 - 130
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		94	70 - 130
Acetone	125	125		ug/L		100	70 - 130
Benzene	25.0	23.2		ug/L		93	70 - 130
Bromobenzene	25.0	23.6		ug/L		94	70 - 130
Bromoform	25.0	22.9		ug/L		92	70 - 130
Bromomethane	25.0	22.9		ug/L		92	70 - 130
Carbon disulfide	25.0	23.7		ug/L		95	70 - 130
Carbon tetrachloride	25.0	23.2		ug/L		93	70 - 130
Chlorobenzene	25.0	22.4		ug/L		89	70 - 130
Chlorobromomethane	25.0	23.1		ug/L		93	70 - 130
Chlorodibromomethane	25.0	21.4		ug/L		86	70 - 130
Chloroethane	25.0	24.8		ug/L		99	70 - 130
Chloroform	25.0	23.6		ug/L		95	70 - 130
Chloromethane	25.0	23.5		ug/L		94	70 - 130
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Dichlorobromomethane	25.0	23.1		ug/L		93	70 - 130
Dichlorodifluoromethane	25.0	22.6		ug/L		91	70 - 130
Ethyl ether	25.0	21.7		ug/L		87	70 - 130
Ethylbenzene	25.0	22.6		ug/L		90	70 - 130
Ethylene Dibromide	25.0	22.8		ug/L		91	70 - 130
Hexachlorobutadiene	25.0	23.3		ug/L		93	70 - 130
Isopropyl ether	25.0	24.6		ug/L		98	70 - 130
Isopropylbenzene	25.0	23.8		ug/L		95	70 - 130
Methyl tert-butyl ether	25.0	23.5		ug/L		94	70 - 130
Methylene Chloride	25.0	22.5		ug/L		90	70 - 130
m-Xylene & p-Xylene	25.0	23.6		ug/L		94	70 - 130
Naphthalene	25.0	25.6		ug/L		102	70 - 130
n-Butylbenzene	25.0	24.4		ug/L		98	70 - 130
N-Propylbenzene	25.0	24.3		ug/L		97	70 - 130
o-Xylene	25.0	22.9		ug/L		91	70 - 130
sec-Butylbenzene	25.0	24.0		ug/L		96	70 - 130
Styrene	25.0	23.4		ug/L		93	70 - 130
Tert-amyl methyl ether	25.0	24.2		ug/L		97	70 - 130
Tert-butyl ethyl ether	25.0	23.5		ug/L		94	70 - 130
tert-Butylbenzene	25.0	24.2		ug/L		97	70 - 130

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCS 480-367779/4

Matrix: Water

Analysis Batch: 367779

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	24.9		ug/L		100	70 - 130
Tetrahydrofuran	50.0	66.7	*	ug/L		133	70 - 130
Toluene	25.0	23.0		ug/L		92	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	22.5		ug/L		90	70 - 130
Trichloroethene	25.0	23.7		ug/L		95	70 - 130
Trichlorofluoromethane	25.0	24.3		ug/L		97	70 - 130
Vinyl chloride	25.0	24.1		ug/L		96	70 - 130
Dibromomethane	25.0	25.3		ug/L		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 480-367779/5

Matrix: Water

Analysis Batch: 367779

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	22.8		ug/L		91	70 - 130	4	20
1,1,1-Trichloroethane	25.0	24.2		ug/L		97	70 - 130	5	20
1,1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	70 - 130	4	20
1,1,2-Trichloroethane	25.0	23.7		ug/L		95	70 - 130	1	20
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	1	20
1,1-Dichloroethene	25.0	23.6		ug/L		95	70 - 130	0	20
1,1-Dichloropropene	25.0	24.3		ug/L		97	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	23.6		ug/L		95	70 - 130	0	20
1,2,3-Trichloropropane	25.0	23.9		ug/L		96	70 - 130	4	20
1,2,4-Trichlorobenzene	25.0	23.7		ug/L		95	70 - 130	2	20
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	20.6		ug/L		82	70 - 130	5	20
1,2-Dichlorobenzene	25.0	24.1		ug/L		96	70 - 130	0	20
1,2-Dichloroethane	25.0	22.9		ug/L		92	70 - 130	1	20
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 130	1	20
1,3,5-Trimethylbenzene	25.0	24.0		ug/L		96	70 - 130	1	20
1,3-Dichlorobenzene	25.0	23.4		ug/L		93	70 - 130	4	20
1,3-Dichloropropane	25.0	23.9		ug/L		95	70 - 130	7	20
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	70 - 130	1	20
1,4-Dioxane	500	458		ug/L		92	70 - 130	14	20
2,2-Dichloropropane	25.0	24.2		ug/L		97	70 - 130	1	20
2-Butanone (MEK)	125	132		ug/L		105	70 - 130	16	20
2-Chlorotoluene	25.0	23.6		ug/L		94	70 - 130	0	20
2-Hexanone	125	120		ug/L		96	70 - 130	1	20
4-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130	2	20
4-Isopropyltoluene	25.0	24.0		ug/L		96	70 - 130	0	20
4-Methyl-2-pentanone (MIBK)	125	118		ug/L		95	70 - 130	0	20
Acetone	125	123		ug/L		98	70 - 130	2	20

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: LCSD 480-367779/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 367779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	23.3		ug/L		93	70 - 130	0	20
Bromobenzene	25.0	23.1		ug/L		92	70 - 130	2	20
Bromoform	25.0	23.5		ug/L		94	70 - 130	3	20
Bromomethane	25.0	23.8		ug/L		95	70 - 130	4	20
Carbon disulfide	25.0	23.4		ug/L		94	70 - 130	1	20
Carbon tetrachloride	25.0	24.0		ug/L		96	70 - 130	3	20
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130	5	20
Chlorobromomethane	25.0	23.0		ug/L		92	70 - 130	1	20
Chlorodibromomethane	25.0	23.6		ug/L		94	70 - 130	9	20
Chloroethane	25.0	24.6		ug/L		98	70 - 130	1	20
Chloroform	25.0	23.8		ug/L		95	70 - 130	1	20
Chloromethane	25.0	24.0		ug/L		96	70 - 130	2	20
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	23.7		ug/L		95	70 - 130	1	20
Dichlorobromomethane	25.0	22.2		ug/L		89	70 - 130	4	20
Dichlorodifluoromethane	25.0	23.4		ug/L		94	70 - 130	3	20
Ethyl ether	25.0	22.4		ug/L		89	70 - 130	3	20
Ethylbenzene	25.0	24.4		ug/L		98	70 - 130	8	20
Ethylene Dibromide	25.0	24.1		ug/L		96	70 - 130	5	20
Hexachlorobutadiene	25.0	23.5		ug/L		94	70 - 130	1	20
Isopropyl ether	25.0	24.9		ug/L		100	70 - 130	1	20
Isopropylbenzene	25.0	23.8		ug/L		95	70 - 130	0	20
Methyl tert-butyl ether	25.0	22.9		ug/L		91	70 - 130	3	20
Methylene Chloride	25.0	23.2		ug/L		93	70 - 130	3	20
m-Xylene & p-Xylene	25.0	24.8		ug/L		99	70 - 130	5	20
Naphthalene	25.0	24.5		ug/L		98	70 - 130	4	20
n-Butylbenzene	25.0	24.9		ug/L		99	70 - 130	2	20
N-Propylbenzene	25.0	24.2		ug/L		97	70 - 130	1	20
o-Xylene	25.0	23.9		ug/L		96	70 - 130	4	20
sec-Butylbenzene	25.0	23.6		ug/L		94	70 - 130	2	20
Styrene	25.0	24.2		ug/L		97	70 - 130	4	20
Tert-amyl methyl ether	25.0	23.6		ug/L		94	70 - 130	3	20
Tert-butyl ethyl ether	25.0	23.4		ug/L		94	70 - 130	1	20
tert-Butylbenzene	25.0	24.7		ug/L		99	70 - 130	2	20
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130	8	20
Tetrahydrofuran	50.0	66.1	*	ug/L		132	70 - 130	1	20
Toluene	25.0	24.1		ug/L		96	70 - 130	4	20
trans-1,2-Dichloroethene	25.0	24.0		ug/L		96	70 - 130	1	20
trans-1,3-Dichloropropene	25.0	23.7		ug/L		95	70 - 130	5	20
Trichloroethene	25.0	24.3		ug/L		97	70 - 130	2	20
Trichlorofluoromethane	25.0	25.8		ug/L		103	70 - 130	6	20
Vinyl chloride	25.0	24.9		ug/L		99	70 - 130	3	20
Dibromomethane	25.0	23.7		ug/L		95	70 - 130	7	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		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: 480-120884-1

Method: 6010 - Metals (ICP)

Lab Sample ID: MB 480-366715/1-A
Matrix: Water
Analysis Batch: 367503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		07/13/17 08:50	07/13/17 20:21	1

Lab Sample ID: LCS 480-366715/2-A
Matrix: Water
Analysis Batch: 367503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Iron	10.0	9.99		mg/L		100	80 - 120

Lab Sample ID: LCSD 480-366715/3-A
Matrix: Water
Analysis Batch: 367503

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 366715

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron	10.0	10.0		mg/L		100	80 - 120	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-367008/28
Matrix: Water
Analysis Batch: 367008

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			07/14/17 18:20	1
Sulfate	ND		2.0		mg/L			07/14/17 18:20	1

Lab Sample ID: LCS 480-367008/27
Matrix: Water
Analysis Batch: 367008

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloride	50.0	49.4		mg/L		99	90 - 110
Sulfate	50.0	52.1		mg/L		104	90 - 110

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-366878/2-A
 Matrix: Water
 Analysis Batch: 366867

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 366878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		07/13/17 14:42	07/13/17 17:39	1

Lab Sample ID: LCS 480-366878/1-A
 Matrix: Water
 Analysis Batch: 366867

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 366878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia	1.00	1.09		mg/L		109	90 - 110

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

Lab Sample ID: MB 480-367555/4
 Matrix: Water
 Analysis Batch: 367555

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			07/18/17 11:00	1
TOC Result 2	ND		1.0		mg/L			07/18/17 11:00	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			07/18/17 11:00	1

Lab Sample ID: LCS 480-367555/5
 Matrix: Water
 Analysis Batch: 367555

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
TOC Result 1	60.0	63.8		mg/L		106	90 - 110
TOC Result 2	60.0	63.9		mg/L		107	90 - 110
Total Organic Carbon - Duplicates	60.0	63.9		mg/L		106	90 - 110

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

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

Lab Sample ID: MB 480-367705/28
Matrix: Water
Analysis Batch: 367705

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			07/19/17 06:01	1
TOC Result 2	ND		1.0		mg/L			07/19/17 06:01	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			07/19/17 06:01	1

Lab Sample ID: MB 480-367705/4
Matrix: Water
Analysis Batch: 367705

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			07/18/17 19:21	1
TOC Result 2	ND		1.0		mg/L			07/18/17 19:21	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			07/18/17 19:21	1

Lab Sample ID: LCS 480-367705/29
Matrix: Water
Analysis Batch: 367705

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	62.9		mg/L		105	90 - 110
TOC Result 2	60.0	63.2		mg/L		105	90 - 110
Total Organic Carbon - Duplicates	60.0	63.1		mg/L		105	90 - 110

Lab Sample ID: LCS 480-367705/5
Matrix: Water
Analysis Batch: 367705

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	63.6		mg/L		106	90 - 110
TOC Result 2	60.0	64.4		mg/L		107	90 - 110
Total Organic Carbon - Duplicates	60.0	64.0		mg/L		107	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-367041/7
Matrix: Water
Analysis Batch: 367041

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			07/13/17 22:32	1

Lab Sample ID: LCS 480-367041/8
Matrix: Water
Analysis Batch: 367041

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	96.5		mg/L		96	90 - 110

TestAmerica Buffalo

QC Sample Results

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

TestAmerica Job ID: 480-120884-1

Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-366693/3
Matrix: Water
Analysis Batch: 366693

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			07/12/17 22:00	1

Lab Sample ID: LCS 480-366693/4
Matrix: Water
Analysis Batch: 366693

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	0.203		mg/L		101	90 - 110

QC Association Summary

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

TestAmerica Job ID: 480-120884-1

GC/MS VOA

Analysis Batch: 367425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	8260C	
480-120884-2	MW-562-20170711	Total/NA	Water	8260C	
480-120884-3	MW-563-20170711	Total/NA	Water	8260C	
480-120884-4	REW-7-20170711	Total/NA	Water	8260C	
480-120884-5	REW-12-20170711	Total/NA	Water	8260C	
MB 480-367425/7	Method Blank	Total/NA	Water	8260C	
LCS 480-367425/26	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-367425/24	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 367645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-2 - DL	MW-562-20170711	Total/NA	Water	8260C	
480-120884-6	TRIP BLANK	Total/NA	Water	8260C	
MB 480-367645/6	Method Blank	Total/NA	Water	8260C	
LCS 480-367645/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-367645/7	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 367779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1 - DL	MW-263M-20170711	Total/NA	Water	8260C	
MB 480-367779/7	Method Blank	Total/NA	Water	8260C	
LCS 480-367779/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-367779/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Metals

Prep Batch: 366715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	3005A	
480-120884-2	MW-562-20170711	Total/NA	Water	3005A	
480-120884-3	MW-563-20170711	Total/NA	Water	3005A	
480-120884-4	REW-7-20170711	Total/NA	Water	3005A	
480-120884-5	REW-12-20170711	Total/NA	Water	3005A	
MB 480-366715/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-366715/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-366715/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-120884-3 MS	MW-563-20170711	Total/NA	Water	3005A	
480-120884-3 MSD	MW-563-20170711	Total/NA	Water	3005A	

Analysis Batch: 367211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-2	MW-562-20170711	Total/NA	Water	6010	366715

Analysis Batch: 367503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	6010	366715
480-120884-3	MW-563-20170711	Total/NA	Water	6010	366715
480-120884-4	REW-7-20170711	Total/NA	Water	6010	366715
480-120884-5	REW-12-20170711	Total/NA	Water	6010	366715
MB 480-366715/1-A	Method Blank	Total/NA	Water	6010	366715

TestAmerica Buffalo

QC Association Summary

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

TestAmerica Job ID: 480-120884-1

Metals (Continued)

Analysis Batch: 367503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-366715/2-A	Lab Control Sample	Total/NA	Water	6010	366715
LCSD 480-366715/3-A	Lab Control Sample Dup	Total/NA	Water	6010	366715
480-120884-3 MS	MW-563-20170711	Total/NA	Water	6010	366715
480-120884-3 MSD	MW-563-20170711	Total/NA	Water	6010	366715

General Chemistry

Analysis Batch: 366692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	353.2	
480-120884-2	MW-562-20170711	Total/NA	Water	353.2	
480-120884-3	MW-563-20170711	Total/NA	Water	353.2	
480-120884-4	REW-7-20170711	Total/NA	Water	353.2	
480-120884-5	REW-12-20170711	Total/NA	Water	353.2	

Analysis Batch: 366693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	SM 4500 P E	
480-120884-2	MW-562-20170711	Total/NA	Water	SM 4500 P E	
480-120884-3	MW-563-20170711	Total/NA	Water	SM 4500 P E	
480-120884-4	REW-7-20170711	Total/NA	Water	SM 4500 P E	
480-120884-5	REW-12-20170711	Total/NA	Water	SM 4500 P E	
MB 480-366693/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-366693/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-120884-4 MS	REW-7-20170711	Total/NA	Water	SM 4500 P E	
480-120884-4 MSD	REW-7-20170711	Total/NA	Water	SM 4500 P E	

Analysis Batch: 366809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	9040C	
480-120884-2	MW-562-20170711	Total/NA	Water	9040C	
480-120884-3	MW-563-20170711	Total/NA	Water	9040C	
480-120884-4	REW-7-20170711	Total/NA	Water	9040C	
480-120884-5	REW-12-20170711	Total/NA	Water	9040C	
LCS 480-366809/1	Lab Control Sample	Total/NA	Water	9040C	

Analysis Batch: 366867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	350.1	366878
480-120884-2	MW-562-20170711	Total/NA	Water	350.1	366878
480-120884-3	MW-563-20170711	Total/NA	Water	350.1	366878
480-120884-4	REW-7-20170711	Total/NA	Water	350.1	366878
480-120884-5	REW-12-20170711	Total/NA	Water	350.1	366878
MB 480-366878/2-A	Method Blank	Total/NA	Water	350.1	366878
LCS 480-366878/1-A	Lab Control Sample	Total/NA	Water	350.1	366878
480-120884-5 MS	REW-12-20170711	Total/NA	Water	350.1	366878
480-120884-4 DU	REW-7-20170711	Total/NA	Water	350.1	366878

TestAmerica Buffalo

QC Association Summary

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

TestAmerica Job ID: 480-120884-1

General Chemistry (Continued)

Prep Batch: 366878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	Distill/Ammonia	
480-120884-2	MW-562-20170711	Total/NA	Water	Distill/Ammonia	
480-120884-3	MW-563-20170711	Total/NA	Water	Distill/Ammonia	
480-120884-4	REW-7-20170711	Total/NA	Water	Distill/Ammonia	
480-120884-5	REW-12-20170711	Total/NA	Water	Distill/Ammonia	
MB 480-366878/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-366878/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
480-120884-5 MS	REW-12-20170711	Total/NA	Water	Distill/Ammonia	
480-120884-4 DU	REW-7-20170711	Total/NA	Water	Distill/Ammonia	

Analysis Batch: 367008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	300.0	
480-120884-2	MW-562-20170711	Total/NA	Water	300.0	
480-120884-3	MW-563-20170711	Total/NA	Water	300.0	
480-120884-4	REW-7-20170711	Total/NA	Water	300.0	
480-120884-5	REW-12-20170711	Total/NA	Water	300.0	
MB 480-367008/28	Method Blank	Total/NA	Water	300.0	
LCS 480-367008/27	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 367041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	SM 2320B	
480-120884-2	MW-562-20170711	Total/NA	Water	SM 2320B	
480-120884-3	MW-563-20170711	Total/NA	Water	SM 2320B	
480-120884-4	REW-7-20170711	Total/NA	Water	SM 2320B	
480-120884-5	REW-12-20170711	Total/NA	Water	SM 2320B	
MB 480-367041/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-367041/8	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 367555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-3	MW-563-20170711	Total/NA	Water	9060A	
MB 480-367555/4	Method Blank	Total/NA	Water	9060A	
LCS 480-367555/5	Lab Control Sample	Total/NA	Water	9060A	

Analysis Batch: 367705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-120884-1	MW-263M-20170711	Total/NA	Water	9060A	
480-120884-2	MW-562-20170711	Total/NA	Water	9060A	
480-120884-4	REW-7-20170711	Total/NA	Water	9060A	
480-120884-5	REW-12-20170711	Total/NA	Water	9060A	
MB 480-367705/28	Method Blank	Total/NA	Water	9060A	
MB 480-367705/4	Method Blank	Total/NA	Water	9060A	
LCS 480-367705/29	Lab Control Sample	Total/NA	Water	9060A	
LCS 480-367705/5	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

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

TestAmerica Job ID: 480-120884-1

Client Sample ID: MW-263M-20170711

Lab Sample ID: 480-120884-1

Date Collected: 07/11/17 09:35

Matrix: Water

Date Received: 07/12/17 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	367425	07/18/17 15:48	RRS	TAL BUF
Total/NA	Analysis	8260C	DL	2	367779	07/20/17 02:30	JAS	TAL BUF
Total/NA	Prep	3005A			366715	07/13/17 08:50	EMB	TAL BUF
Total/NA	Analysis	6010		1	367503	07/13/17 20:41	LMH	TAL BUF
Total/NA	Analysis	300.0		10	367008	07/14/17 21:44	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			366878	07/13/17 14:42	SSS	TAL BUF
Total/NA	Analysis	350.1		1	366867	07/13/17 17:40	SSS	TAL BUF
Total/NA	Analysis	353.2		1	366692	07/12/17 21:27	DCB	TAL BUF
Total/NA	Analysis	9040C		1	366809	07/13/17 11:22	DSC	TAL BUF
Total/NA	Analysis	9060A		20	367705	07/19/17 02:57	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	367041	07/13/17 23:34	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	366693	07/12/17 22:00	DCB	TAL BUF



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Lab Chronicle

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

TestAmerica Job ID: 480-120884-1



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Lab Chronicle

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

TestAmerica Job ID: 480-120884-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-120884-6

Date Collected: 07/11/17 00:00

Matrix: Water

Date Received: 07/12/17 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	367645	07/19/17 12:55	JAS	TAL BUF

Laboratory References:

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

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Accreditation/Certification Summary

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

TestAmerica Job ID: 480-120884-1

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	07-06-17 *
California	State Program	9	1169CA	09-30-17
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	09-30-17
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18
Kentucky (DW)	State Program	4	90029	12-31-17
Kentucky (UST)	State Program	4	30	03-31-18
Kentucky (WW)	State Program	4	90029	12-31-17
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	04-01-09 *
Minnesota	NELAP	5	036-999-337	12-31-17
New Hampshire	NELAP	1	2337	11-17-17
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	08-31-17
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-17 *
Rhode Island	State Program	1	LAO00328	12-30-17
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-17 *
USDA	Federal		P330-11-00386	11-26-17
Virginia	NELAP	3	460185	09-14-17
Washington	State Program	10	C784	02-10-18
Wisconsin	State Program	5	998310390	08-31-17

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

Method Summary

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

TestAmerica Job ID: 480-120884-1

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
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: 480-120884-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-120884-1	MW-263M-20170711	Water	07/11/17 09:35	07/12/17 01:30
480-120884-2	MW-562-20170711	Water	07/11/17 08:30	07/12/17 01:30
480-120884-3	MW-563-20170711	Water	07/11/17 11:50	07/12/17 01:30
480-120884-4	REW-7-20170711	Water	07/11/17 12:40	07/12/17 01:30
480-120884-5	REW-12-20170711	Water	07/11/17 10:45	07/12/17 01:30
480-120884-6	TRIP BLANK	Water	07/11/17 00:00	07/12/17 01:30

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Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-120884-1

Login Number: 120884

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	

360325-Boston
TestAmerica Westfield
 501 Southampton Road
 Westfield MA 01085
 Phone: (413) 572-4000 Fax: (303) 467-7247

TestAmerica Boston
 240 Bear Hill Road -- Suite 104
 Waltham MA 02451
 Phone: (781) 466-6900 Fax: (781) 466-6901

360325-Boston

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record



480-120884 COC

Client Information:
 Client Contact: Stacy Paulsen
 Company: Innovative Engineering Solutions Inc
 Address: 25 Spring St
 City: Waltham
 State and Zip: MA 02081
 Client's Phone: 508-668-0033
 Client's Contact Email: vipanov@innovativeeng.com
 Client's Project Name/Number: Roofdeck Washdown RA-008
 Sample Collection Site Name & Location: Waltham MA

Sample Collector's Name (Please Print Neatly): Dwight Sobel
 Sample Collector's Phone: 508-404-3196

Lab C:
 Lab PM: _____
 E-Mail: _____

Sample Identification	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	Analysis Requested																	
					9060A TOC	5038 SO ₄ /931 Cl ⁻ /NO ₃	6010 MP Tot/Lead	4500-P-Z Ortho Phos	3501 NH ₃	3300B Alkalinity	PH	9040C	A	D	N	P						
mW-363M - 20170711	7/11/17	0933	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
mW-562 - 20170711	7/11/17	0830	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
mW-563 - 20170711	7/11/17	1130	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
REW-7 - 20170711	7/11/17	1240	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
REW-12 - 20170711	7/11/17	1045	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Temp Blank				W	X																	

Due Date Requested: 7/18/17
 Turnaround Time (TAT) Requested (business days): 5 days
 Quote # or Project #: RA-008
 PO #: RA-008
 WO #: _____
 PWS ID #: _____

Preservation Codes =>

Possible Hazard Identification (please check off each that may apply):
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 ** Matrix Types: A=Air S=Solid/Soil W=Water O=Oil X=Waste (non-water) Z=Other: _____

Relinquished by: [Signature] Company: JEST
 Date/Time: 7/11/17 1330
 Relinquished by: [Signature] Company: _____
 Date/Time: 7-11-17 1800
 Relinquished by: [Signature] Company: _____
 Date/Time: _____

Custody Seal No.: _____
 Δ Yes Δ No

Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month):	Return To Client	Disposal By Lab	Archive For	Months
Sample Disposal Requirements (A fee may be assessed if samples are retained longer than 1 month):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

NOTE!! ALL SAMPLES MUST BE TRANSPORTED IN A COOLER, ON ICE !!

Received by: [Signature] Date/Time: 7-11-17 1330 Company: JEST
 Received by: [Signature] Date/Time: 7-12-17 0130 Company: [Signature]
 Received by: [Signature] Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 2.4 #1

COC No: 37362
 Page: 1 of 1
 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 GW1/S1
 RCP CT RSR
 DEP Form EDD Required
 eDEP Filing NPDES

SUBCONTRACT POLICY: _____
 Unless you provide instructions to the contrary, or specify which sub-contract labs are or are not to be used, you agree in advance to permit TestAmerica to use certified, sub-contract labs, without any additional notification made by us, as necessary to fulfill your work order.

Total Number of Containers (enter total for each line)

Special Instructions & Notes:
12
12 12 12
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2

