

**Environmental  
Resources  
Management**

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

<http://www.erm.com>

2 November 2017  
Reference: 0377766

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



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

Dear Mr. Costello:

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

Innovative Engineering Solutions, Inc. (IESI) collected groundwater samples from eighteen monitoring wells located on National Development property in October 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.

Sincerely,



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



Lyndsey Colburn, P.G.  
*Principal Consultant*

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

cc: Jonathan Hone, Raytheon Company  
PIP Repositories





**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: 480-125314-1

Client Project/Site: IDS Wayland

For:

Innovative Engineering Solutions, Inc

25 Spring Street

Walpole, Massachusetts 02081

Attn: Vicki Pariyar



Authorized for release by:

10/16/2017 9:19:25 AM

Denise Giglia, Project Management Assistant II

[denise.giglia@testamericainc.com](mailto:denise.giglia@testamericainc.com)

Designee for

Becky Mason, Project Manager II

(413)572-4000

[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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: 480-125314-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

### GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control 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: 480-125314-1

## Job ID: 480-125314-1

### Laboratory: TestAmerica Buffalo

#### Narrative

#### Job Narrative 480-125314-1

#### Receipt

The samples were received on 10/5/2017 1:20 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.

#### Receipt Exceptions

Buffalo did not receive Trip Blanks.

#### GC/MS VOA

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

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268S-20171004 (480-125314-4), MW-268M-20171004 (480-125314-5) and DUP2-20171004 (480-125314-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-381639 recovered above the upper MCP control limit but less than 40% for n-Butylbenzene, N-Propylbenzene, 2-Hexanone, 1,4-Dioxane, 1,1,2,2-Tetrachloroethane, 1,3-Dichloropropane, Acetone and sec-Butylbenzene. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference. The following samples are impacted: MW-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268S-20171004 (480-125314-4), MW-268M-20171004 (480-125314-5), MW-552-20171004 (480-125314-6) and DUP2-20171004 (480-125314-7).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-381639 exceeded control limits for the following analytes: 1,4-Dioxane. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%. The following samples were affected : MW-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268S-20171004 (480-125314-4), MW-268M-20171004 (480-125314-5), MW-552-20171004 (480-125314-6) and DUP2-20171004 (480-125314-7).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-381639 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl 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-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268S-20171004 (480-125314-4), MW-268M-20171004 (480-125314-5), MW-552-20171004 (480-125314-6) and DUP2-20171004 (480-125314-7).

Method 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-381639 recovered outside control limits for the following analytes: 1,4-Dioxane.

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

#### GC/MS Semi VOA

Method 522: Surrogate recovery for the following samples was outside control limits: MW-265M-20171004 (480-125314-2) and MW-267S-20171004 (480-125314-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### HPLC/IC

Method 300.0: The following samples was reported with elevated reporting limits for all analytes: MW-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268M-20171004 (480-125314-5) and MW-552-20171004



# Case Narrative

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

TestAmerica Job ID: 480-125314-1

## Job ID: 480-125314-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

(480-125314-6). 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.

Method 6010, 6010C: The Low Level Continuing Calibration Verification (CCVL 480-380579/36) contained Total Iron outside the control limits. All reported samples MW-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268M-20171004 (480-125314-5), MW-552-20171004 (480-125314-6), (LCSD 480-380344/3-A), (480-125314-B-1-B MS), (480-125314-B-1-C MSD), (480-125314-B-1-A PDS) and (480-125314-B-1-A SD) associated with this CCVL were either below the laboratory's standard reporting limit for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCVL; therefore, re-analysis of samples was not performed.

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

#### General Chemistry

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-261S-20171004 (480-125314-1), MW-265M-20171004 (480-125314-2), MW-267S-20171004 (480-125314-3), MW-268S-20171004 (480-125314-4), MW-268M-20171004 (480-125314-5) and MW-552-20171004 (480-125314-6).

Method SM 2320B: The following sample(s) was received with headspace in the sample container. This sample container was received with headspace. MW-268M-20171004 (480-125314-5).

Method 353.2: The following samples was filtered prior to analysis. MW-261S-20171004 (480-125314-1), MW-267S-20171004 (480-125314-3), MW-268M-20171004 (480-125314-5) and MW-552-20171004 (480-125314-6)

Method 353.2: The following sample was filtered prior to analysis due to color turbidity and/or particulates: MW-265M-20171004 (480-125314-2)

Method 353.2: Reanalysis of the following sample was performed outside of the analytical holding time due to nitrite value being greater than nitrate-nitrite total : MW-265M-20171004 (480-125314-2).

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 for sample: MW-265M-20171004 (480-125314-2).

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 for sample: MW-265M-20171004 (480-125314-2).

Method Nitrate by calc: 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 for sample: MW-265M-20171004 (480-125314-2).

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

#### Organic Prep

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

## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-125314**

Project Location: **IDS Wayland** RTN:

**This form provides certifications for the following data set: list Laboratory Sample ID Number(s):**  
**480-125314[1-7]**

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

**CAM Protocols (check all that apply below):**

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

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

<b>A</b>	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>B</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
<b>C</b>	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
<b>D</b>	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
<b>E</b>	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
<b>F</b>	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**

<b>G</b>	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 <sup>1</sup>
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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**

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

<sup>1</sup> 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: 10/16/17 9:03

# Detection Summary

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-261S-20171004**

**Lab Sample ID: 480-125314-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	2.0		2.0		ug/L	1		8260C	Total/NA
Ethylbenzene	2.9		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	7.8		2.0		ug/L	1		8260C	Total/NA
o-Xylene	1.8		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	0.91		0.20		ug/L	1		522	Total/NA
Iron	36		0.050		mg/L	1		6010	Total/NA
Chloride	19		1.0		mg/L	2		300.0	Total/NA
Ammonia	0.27		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	2.6		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	2.2		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	2.4		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	420		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.0	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.7	HF	0.001		Degrees C	1		9040C	Total/NA

**Client Sample ID: MW-265M-20171004**

**Lab Sample ID: 480-125314-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	100	*	50		ug/L	5		8260C	Total/NA
Acetone	370		250		ug/L	5		8260C	Total/NA
m-Xylene & p-Xylene	13		10		ug/L	5		8260C	Total/NA
1,4-Dioxane	1.3		0.20		ug/L	1		522	Total/NA
Iron	340		0.050		mg/L	1		6010	Total/NA
Chloride	16		2.5		mg/L	5		300.0	Total/NA
Ammonia	3.0		0.40		mg/L	2		350.1	Total/NA
TOC Result 1	540		10		mg/L	10		9060A	Total/NA
TOC Result 2	530		10		mg/L	10		9060A	Total/NA
Total Organic Carbon - Duplicates	530		10		mg/L	10		9060A	Total/NA
Alkalinity, Total	870		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.025		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.6	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.8	HF	0.001		Degrees C	1		9040C	Total/NA

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	480	*	40		ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	120		4.0		ug/L	4		8260C	Total/NA
Toluene	89		4.0		ug/L	4		8260C	Total/NA
Vinyl chloride	32		4.0		ug/L	4		8260C	Total/NA
1,4-Dioxane	0.78		0.20		ug/L	1		522	Total/NA
Iron	380		0.050		mg/L	1		6010	Total/NA
Chloride	23		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.25	F1	0.20		mg/L	1		350.1	Total/NA
TOC Result 1	1400		20		mg/L	20		9060A	Total/NA
TOC Result 2	1400		20		mg/L	20		9060A	Total/NA
Total Organic Carbon - Duplicates	1400		20		mg/L	20		9060A	Total/NA
Alkalinity, Total	550		5.0		mg/L	1		SM 2320B	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: 480-125314-1

## Client Sample ID: MW-267S-20171004 (Continued)

## Lab Sample ID: 480-125314-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ortho-Phosphate	0.13		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	5.3	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.7	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-268S-20171004

## Lab Sample ID: 480-125314-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	95		4.0		ug/L	4		8260C	Total/NA
Trichloroethene	180		4.0		ug/L	4		8260C	Total/NA
Vinyl chloride	4.9		4.0		ug/L	4		8260C	Total/NA
1,4-Dioxane	14		0.20		ug/L	1		522	Total/NA
Iron	0.42		0.050		mg/L	1		6010	Total/NA
Chloride	17		0.50		mg/L	1		300.0	Total/NA
Sulfate	31		2.0		mg/L	1		300.0	Total/NA
Ammonia	0.27		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	53		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	55		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	54		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	96		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	9.6	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.7	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-268M-20171004

## Lab Sample ID: 480-125314-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.0		2.0		ug/L	2		8260C	Total/NA
2-Butanone (MEK)	74	*	20		ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	5.3		2.0		ug/L	2		8260C	Total/NA
Toluene	5.9		2.0		ug/L	2		8260C	Total/NA
Vinyl chloride	44		2.0		ug/L	2		8260C	Total/NA
1,4-Dioxane	6.2		0.20		ug/L	1		522	Total/NA
Iron	48		0.050		mg/L	1		6010	Total/NA
Chloride	40		1.0		mg/L	2		300.0	Total/NA
Ammonia	0.25		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	37		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	37		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	37		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	420		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.8	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-552-20171004

## Lab Sample ID: 480-125314-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	0.55		0.20		ug/L	1		522	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: 480-125314-1

## Client Sample ID: MW-552-20171004 (Continued)

## Lab Sample ID: 480-125314-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	19		0.050		mg/L	1		6010	Total/NA
Chloride	11		1.0		mg/L	2		300.0	Total/NA
Ammonia	0.26		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	3.1		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	2.5		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	2.8		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	300		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.061		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.9	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: DUP2-20171004

## Lab Sample ID: 480-125314-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	92		5.0		ug/L	5		8260C	Total/NA
Trichloroethene	180		5.0		ug/L	5		8260C	Total/NA
1,4-Dioxane	13		0.20		ug/L	1		522	Total/NA

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: 480-125314-1

**Client Sample ID: MW-261S-20171004**

**Lab Sample ID: 480-125314-1**

**Date Collected: 10/04/17 08:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

**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			10/13/17 16:33	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/13/17 16:33	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/17 16:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/13/17 16:33	1
1,1-Dichloroethane	ND		1.0		ug/L			10/13/17 16:33	1
1,1-Dichloroethene	ND		1.0		ug/L			10/13/17 16:33	1
1,1-Dichloropropene	ND		1.0		ug/L			10/13/17 16:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/13/17 16:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/17 16:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,2-Dichloroethane	ND		1.0		ug/L			10/13/17 16:33	1
1,2-Dichloropropane	ND		1.0		ug/L			10/13/17 16:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,3-Dichloropropane	ND		1.0		ug/L			10/13/17 16:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
1,4-Dioxane	ND	*	50		ug/L			10/13/17 16:33	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/17 16:33	1
2-Butanone (MEK)	ND	*	10		ug/L			10/13/17 16:33	1
2-Chlorotoluene	ND		1.0		ug/L			10/13/17 16:33	1
2-Hexanone	ND		10		ug/L			10/13/17 16:33	1
4-Chlorotoluene	ND		1.0		ug/L			10/13/17 16:33	1
4-Isopropyltoluene	ND		1.0		ug/L			10/13/17 16:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/13/17 16:33	1
Acetone	ND		50		ug/L			10/13/17 16:33	1
Benzene	ND		1.0		ug/L			10/13/17 16:33	1
Bromobenzene	ND		1.0		ug/L			10/13/17 16:33	1
Bromoform	ND		1.0		ug/L			10/13/17 16:33	1
Bromomethane	ND		2.0		ug/L			10/13/17 16:33	1
Carbon disulfide	ND		10		ug/L			10/13/17 16:33	1
Carbon tetrachloride	ND		1.0		ug/L			10/13/17 16:33	1
Chlorobenzene	ND		1.0		ug/L			10/13/17 16:33	1
Chlorobromomethane	ND		1.0		ug/L			10/13/17 16:33	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/17 16:33	1
<b>Chloroethane</b>	<b>2.0</b>		2.0		ug/L			10/13/17 16:33	1
Chloroform	ND		1.0		ug/L			10/13/17 16:33	1
Chloromethane	ND		2.0		ug/L			10/13/17 16:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/13/17 16:33	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 16:33	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/17 16:33	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/17 16:33	1
Ethyl ether	ND		1.0		ug/L			10/13/17 16:33	1
<b>Ethylbenzene</b>	<b>2.9</b>		1.0		ug/L			10/13/17 16:33	1
Ethylene Dibromide	ND		1.0		ug/L			10/13/17 16:33	1
Hexachlorobutadiene	ND		0.40		ug/L			10/13/17 16:33	1
Isopropyl ether	ND		10		ug/L			10/13/17 16:33	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-261S-20171004**

**Lab Sample ID: 480-125314-1**

**Date Collected: 10/04/17 08:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/13/17 16:33	1
Methylene Chloride	ND		1.0		ug/L			10/13/17 16:33	1
<b>m-Xylene &amp; p-Xylene</b>	<b>7.8</b>		2.0		ug/L			10/13/17 16:33	1
Naphthalene	ND		5.0		ug/L			10/13/17 16:33	1
n-Butylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
N-Propylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
<b>o-Xylene</b>	<b>1.8</b>		1.0		ug/L			10/13/17 16:33	1
sec-Butylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
Styrene	ND		1.0		ug/L			10/13/17 16:33	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/13/17 16:33	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/13/17 16:33	1
tert-Butylbenzene	ND		1.0		ug/L			10/13/17 16:33	1
Tetrachloroethene	ND		1.0		ug/L			10/13/17 16:33	1
Tetrahydrofuran	ND		10		ug/L			10/13/17 16:33	1
Toluene	ND		1.0		ug/L			10/13/17 16:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/13/17 16:33	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 16:33	1
Trichloroethene	ND		1.0		ug/L			10/13/17 16:33	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/17 16:33	1
Vinyl chloride	ND		1.0		ug/L			10/13/17 16:33	1
Dibromomethane	ND		1.0		ug/L			10/13/17 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	99		70 - 130		10/13/17 16:33	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	91		70 - 130		10/13/17 16:33	1
<i>4-Bromofluorobenzene (Surr)</i>	83		70 - 130		10/13/17 16:33	1

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>0.91</b>		0.20		ug/L		10/09/17 21:57	10/10/17 17:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,4-Dioxane-d8 (Surr)</i>	86		46 - 130	10/09/17 21:57	10/10/17 17:10	1

## Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>36</b>		0.050		mg/L		10/05/17 09:20	10/05/17 17:00	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>19</b>		1.0		mg/L			10/09/17 12:46	2
Sulfate	ND		4.0		mg/L			10/09/17 12:46	2
<b>Ammonia</b>	<b>0.27</b>		0.20		mg/L		10/11/17 11:00	10/11/17 12:54	1
Nitrate as N	ND		0.050		mg/L			10/05/17 17:03	1
<b>TOC Result 1</b>	<b>2.6</b>		1.0		mg/L			10/06/17 00:49	1
<b>TOC Result 2</b>	<b>2.2</b>		1.0		mg/L			10/06/17 00:49	1
<b>Total Organic Carbon - Duplicates</b>	<b>2.4</b>		1.0		mg/L			10/06/17 00:49	1
<b>Alkalinity, Total</b>	<b>420</b>		5.0		mg/L			10/05/17 17:47	1
ortho-Phosphate	ND		0.020		mg/L			10/05/17 08:14	1

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-261S-20171004**

**Lab Sample ID: 480-125314-1**

**Date Collected: 10/04/17 08:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.0	HF	0.1		SU			10/05/17 17:38	1
Temperature	22.7	HF	0.001		Degrees C			10/05/17 17:38	1

**Client Sample ID: MW-265M-20171004**

**Lab Sample ID: 480-125314-2**

**Date Collected: 10/04/17 10:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			10/13/17 16:56	5
1,1,1-Trichloroethane	ND		5.0		ug/L			10/13/17 16:56	5
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			10/13/17 16:56	5
1,1,2-Trichloroethane	ND		5.0		ug/L			10/13/17 16:56	5
1,1-Dichloroethane	ND		5.0		ug/L			10/13/17 16:56	5
1,1-Dichloroethene	ND		5.0		ug/L			10/13/17 16:56	5
1,1-Dichloropropene	ND		5.0		ug/L			10/13/17 16:56	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,2,3-Trichloropropane	ND		5.0		ug/L			10/13/17 16:56	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,2,4-Trimethylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,2-Dibromo-3-Chloropropane	ND		25		ug/L			10/13/17 16:56	5
1,2-Dichlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,2-Dichloroethane	ND		5.0		ug/L			10/13/17 16:56	5
1,2-Dichloropropane	ND		5.0		ug/L			10/13/17 16:56	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,3-Dichlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,3-Dichloropropane	ND		5.0		ug/L			10/13/17 16:56	5
1,4-Dichlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
1,4-Dioxane	ND	*	250		ug/L			10/13/17 16:56	5
2,2-Dichloropropane	ND		5.0		ug/L			10/13/17 16:56	5
<b>2-Butanone (MEK)</b>	<b>100</b>	*	50		ug/L			10/13/17 16:56	5
2-Chlorotoluene	ND		5.0		ug/L			10/13/17 16:56	5
2-Hexanone	ND		50		ug/L			10/13/17 16:56	5
4-Chlorotoluene	ND		5.0		ug/L			10/13/17 16:56	5
4-Isopropyltoluene	ND		5.0		ug/L			10/13/17 16:56	5
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			10/13/17 16:56	5
<b>Acetone</b>	<b>370</b>		250		ug/L			10/13/17 16:56	5
Benzene	ND		5.0		ug/L			10/13/17 16:56	5
Bromobenzene	ND		5.0		ug/L			10/13/17 16:56	5
Bromoform	ND		5.0		ug/L			10/13/17 16:56	5
Bromomethane	ND		10		ug/L			10/13/17 16:56	5
Carbon disulfide	ND		50		ug/L			10/13/17 16:56	5
Carbon tetrachloride	ND		5.0		ug/L			10/13/17 16:56	5
Chlorobenzene	ND		5.0		ug/L			10/13/17 16:56	5
Chlorobromomethane	ND		5.0		ug/L			10/13/17 16:56	5
Chlorodibromomethane	ND		2.5		ug/L			10/13/17 16:56	5
Chloroethane	ND		10		ug/L			10/13/17 16:56	5
Chloroform	ND		5.0		ug/L			10/13/17 16:56	5
Chloromethane	ND		10		ug/L			10/13/17 16:56	5
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/13/17 16:56	5
cis-1,3-Dichloropropene	ND		2.0		ug/L			10/13/17 16:56	5

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-265M-20171004**

**Lab Sample ID: 480-125314-2**

**Date Collected: 10/04/17 10:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		2.5		ug/L			10/13/17 16:56	5
Dichlorodifluoromethane	ND		5.0		ug/L			10/13/17 16:56	5
Ethyl ether	ND		5.0		ug/L			10/13/17 16:56	5
Ethylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
Ethylene Dibromide	ND		5.0		ug/L			10/13/17 16:56	5
Hexachlorobutadiene	ND		2.0		ug/L			10/13/17 16:56	5
Isopropyl ether	ND		50		ug/L			10/13/17 16:56	5
Isopropylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
Methyl tert-butyl ether	ND		5.0		ug/L			10/13/17 16:56	5
Methylene Chloride	ND		5.0		ug/L			10/13/17 16:56	5
<b>m-Xylene &amp; p-Xylene</b>	<b>13</b>		10		ug/L			10/13/17 16:56	5
Naphthalene	ND		25		ug/L			10/13/17 16:56	5
n-Butylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
N-Propylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
o-Xylene	ND		5.0		ug/L			10/13/17 16:56	5
sec-Butylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
Styrene	ND		5.0		ug/L			10/13/17 16:56	5
Tert-amyl methyl ether	ND		25		ug/L			10/13/17 16:56	5
Tert-butyl ethyl ether	ND		25		ug/L			10/13/17 16:56	5
tert-Butylbenzene	ND		5.0		ug/L			10/13/17 16:56	5
Tetrachloroethene	ND		5.0		ug/L			10/13/17 16:56	5
Tetrahydrofuran	ND		50		ug/L			10/13/17 16:56	5
Toluene	ND		5.0		ug/L			10/13/17 16:56	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/13/17 16:56	5
trans-1,3-Dichloropropene	ND		2.0		ug/L			10/13/17 16:56	5
Trichloroethene	ND		5.0		ug/L			10/13/17 16:56	5
Trichlorofluoromethane	ND		5.0		ug/L			10/13/17 16:56	5
Vinyl chloride	ND		5.0		ug/L			10/13/17 16:56	5
Dibromomethane	ND		5.0		ug/L			10/13/17 16:56	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	101		70 - 130		10/13/17 16:56	5
<i>1,2-Dichloroethane-d4 (Surr)</i>	100		70 - 130		10/13/17 16:56	5
<i>4-Bromofluorobenzene (Surr)</i>	81		70 - 130		10/13/17 16:56	5

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>1.3</b>		0.20		ug/L		10/09/17 21:57	10/10/17 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,4-Dioxane-d8 (Surr)</i>	25	X	46 - 130	10/09/17 21:57	10/10/17 17:23	1

## Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>340</b>		0.050		mg/L		10/05/17 09:20	10/05/17 17:17	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>16</b>		2.5		mg/L			10/09/17 12:54	5
Sulfate	ND		10		mg/L			10/09/17 12:54	5
<b>Ammonia</b>	<b>3.0</b>		0.40		mg/L		10/06/17 08:16	10/06/17 11:03	2

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-265M-20171004**

**Lab Sample ID: 480-125314-2**

**Date Collected: 10/04/17 10:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

## General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.050		mg/L			10/05/17 20:49	1
<b>TOC Result 1</b>	<b>540</b>		10		mg/L			10/08/17 18:35	10
<b>TOC Result 2</b>	<b>530</b>		10		mg/L			10/08/17 18:35	10
<b>Total Organic Carbon - Duplicates</b>	<b>530</b>		10		mg/L			10/08/17 18:35	10
<b>Alkalinity, Total</b>	<b>870</b>		5.0		mg/L			10/05/17 17:55	1
<b>ortho-Phosphate</b>	<b>0.025</b>		0.020		mg/L			10/05/17 08:14	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>6.6</b>	<b>HF</b>	0.1		SU			10/05/17 17:41	1
<b>Temperature</b>	<b>22.8</b>	<b>HF</b>	0.001		Degrees C			10/05/17 17:41	1

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

**Date Collected: 10/04/17 11:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0		ug/L			10/13/17 17:20	4
1,1,1-Trichloroethane	ND		4.0		ug/L			10/13/17 17:20	4
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/13/17 17:20	4
1,1,2-Trichloroethane	ND		4.0		ug/L			10/13/17 17:20	4
1,1-Dichloroethane	ND		4.0		ug/L			10/13/17 17:20	4
1,1-Dichloroethene	ND		4.0		ug/L			10/13/17 17:20	4
1,1-Dichloropropene	ND		4.0		ug/L			10/13/17 17:20	4
1,2,3-Trichlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,2,3-Trichloropropane	ND		4.0		ug/L			10/13/17 17:20	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,2,4-Trimethylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			10/13/17 17:20	4
1,2-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,2-Dichloroethane	ND		4.0		ug/L			10/13/17 17:20	4
1,2-Dichloropropane	ND		4.0		ug/L			10/13/17 17:20	4
1,3,5-Trimethylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,3-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,3-Dichloropropane	ND		4.0		ug/L			10/13/17 17:20	4
1,4-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
1,4-Dioxane	ND *		200		ug/L			10/13/17 17:20	4
2,2-Dichloropropane	ND		4.0		ug/L			10/13/17 17:20	4
<b>2-Butanone (MEK)</b>	<b>480 *</b>		40		ug/L			10/13/17 17:20	4
2-Chlorotoluene	ND		4.0		ug/L			10/13/17 17:20	4
2-Hexanone	ND		40		ug/L			10/13/17 17:20	4
4-Chlorotoluene	ND		4.0		ug/L			10/13/17 17:20	4
4-Isopropyltoluene	ND		4.0		ug/L			10/13/17 17:20	4
4-Methyl-2-pentanone (MIBK)	ND		40		ug/L			10/13/17 17:20	4
Acetone	ND		200		ug/L			10/13/17 17:20	4
Benzene	ND		4.0		ug/L			10/13/17 17:20	4
Bromobenzene	ND		4.0		ug/L			10/13/17 17:20	4
Bromoform	ND		4.0		ug/L			10/13/17 17:20	4
Bromomethane	ND		8.0		ug/L			10/13/17 17:20	4
Carbon disulfide	ND		40		ug/L			10/13/17 17:20	4

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

**Date Collected: 10/04/17 11:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		4.0		ug/L			10/13/17 17:20	4
Chlorobenzene	ND		4.0		ug/L			10/13/17 17:20	4
Chlorobromomethane	ND		4.0		ug/L			10/13/17 17:20	4
Chlorodibromomethane	ND		2.0		ug/L			10/13/17 17:20	4
Chloroethane	ND		8.0		ug/L			10/13/17 17:20	4
Chloroform	ND		4.0		ug/L			10/13/17 17:20	4
Chloromethane	ND		8.0		ug/L			10/13/17 17:20	4
<b>cis-1,2-Dichloroethene</b>	<b>120</b>		4.0		ug/L			10/13/17 17:20	4
cis-1,3-Dichloropropene	ND		1.6		ug/L			10/13/17 17:20	4
Dichlorobromomethane	ND		2.0		ug/L			10/13/17 17:20	4
Dichlorodifluoromethane	ND		4.0		ug/L			10/13/17 17:20	4
Ethyl ether	ND		4.0		ug/L			10/13/17 17:20	4
Ethylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
Ethylene Dibromide	ND		4.0		ug/L			10/13/17 17:20	4
Hexachlorobutadiene	ND		1.6		ug/L			10/13/17 17:20	4
Isopropyl ether	ND		40		ug/L			10/13/17 17:20	4
Isopropylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
Methyl tert-butyl ether	ND		4.0		ug/L			10/13/17 17:20	4
Methylene Chloride	ND		4.0		ug/L			10/13/17 17:20	4
m-Xylene & p-Xylene	ND		8.0		ug/L			10/13/17 17:20	4
Naphthalene	ND		20		ug/L			10/13/17 17:20	4
n-Butylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
N-Propylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
o-Xylene	ND		4.0		ug/L			10/13/17 17:20	4
sec-Butylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
Styrene	ND		4.0		ug/L			10/13/17 17:20	4
Tert-amyl methyl ether	ND		20		ug/L			10/13/17 17:20	4
Tert-butyl ethyl ether	ND		20		ug/L			10/13/17 17:20	4
tert-Butylbenzene	ND		4.0		ug/L			10/13/17 17:20	4
Tetrachloroethene	ND		4.0		ug/L			10/13/17 17:20	4
Tetrahydrofuran	ND		40		ug/L			10/13/17 17:20	4
<b>Toluene</b>	<b>89</b>		4.0		ug/L			10/13/17 17:20	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			10/13/17 17:20	4
trans-1,3-Dichloropropene	ND		1.6		ug/L			10/13/17 17:20	4
Trichloroethene	ND		4.0		ug/L			10/13/17 17:20	4
Trichlorofluoromethane	ND		4.0		ug/L			10/13/17 17:20	4
<b>Vinyl chloride</b>	<b>32</b>		4.0		ug/L			10/13/17 17:20	4
Dibromomethane	ND		4.0		ug/L			10/13/17 17:20	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		70 - 130		10/13/17 17:20	4
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/13/17 17:20	4
4-Bromofluorobenzene (Surr)	86		70 - 130		10/13/17 17:20	4

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>0.78</b>		0.20		ug/L		10/09/17 21:57	10/10/17 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	16	X	46 - 130	10/09/17 21:57	10/10/17 17:37	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

Date Collected: 10/04/17 11:05

Matrix: Water

Date Received: 10/05/17 01:20

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	380		0.050		mg/L		10/05/17 09:20	10/05/17 17:21	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.5		mg/L			10/09/17 13:02	5
Sulfate	ND		10		mg/L			10/09/17 13:02	5
Ammonia	0.25	F1	0.20		mg/L		10/11/17 11:00	10/11/17 12:55	1
Nitrate as N	ND		0.050		mg/L			10/05/17 17:08	1
TOC Result 1	1400		20		mg/L			10/08/17 19:02	20
TOC Result 2	1400		20		mg/L			10/08/17 19:02	20
Total Organic Carbon - Duplicates	1400		20		mg/L			10/08/17 19:02	20
Alkalinity, Total	550		5.0		mg/L			10/05/17 18:02	1
ortho-Phosphate	0.13		0.020		mg/L			10/05/17 08:14	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.3	HF	0.1		SU			10/05/17 17:44	1
Temperature	22.7	HF	0.001		Degrees C			10/05/17 17:44	1

**Client Sample ID: MW-268S-20171004**

**Lab Sample ID: 480-125314-4**

Date Collected: 10/04/17 11:45

Matrix: Water

Date Received: 10/05/17 01:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0		ug/L			10/13/17 17:44	4
1,1,1-Trichloroethane	ND		4.0		ug/L			10/13/17 17:44	4
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			10/13/17 17:44	4
1,1,2-Trichloroethane	ND		4.0		ug/L			10/13/17 17:44	4
1,1-Dichloroethane	ND		4.0		ug/L			10/13/17 17:44	4
1,1-Dichloroethene	ND		4.0		ug/L			10/13/17 17:44	4
1,1-Dichloropropene	ND		4.0		ug/L			10/13/17 17:44	4
1,2,3-Trichlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,2,3-Trichloropropane	ND		4.0		ug/L			10/13/17 17:44	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,2,4-Trimethylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			10/13/17 17:44	4
1,2-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,2-Dichloroethane	ND		4.0		ug/L			10/13/17 17:44	4
1,2-Dichloropropane	ND		4.0		ug/L			10/13/17 17:44	4
1,3,5-Trimethylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,3-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,3-Dichloropropane	ND		4.0		ug/L			10/13/17 17:44	4
1,4-Dichlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
1,4-Dioxane	ND	*	200		ug/L			10/13/17 17:44	4
2,2-Dichloropropane	ND		4.0		ug/L			10/13/17 17:44	4
2-Butanone (MEK)	ND	*	40		ug/L			10/13/17 17:44	4
2-Chlorotoluene	ND		4.0		ug/L			10/13/17 17:44	4
2-Hexanone	ND		40		ug/L			10/13/17 17:44	4
4-Chlorotoluene	ND		4.0		ug/L			10/13/17 17:44	4
4-Isopropyltoluene	ND		4.0		ug/L			10/13/17 17:44	4
4-Methyl-2-pentanone (MIBK)	ND		40		ug/L			10/13/17 17:44	4

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-268S-20171004**

**Lab Sample ID: 480-125314-4**

**Date Collected: 10/04/17 11:45**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		200		ug/L			10/13/17 17:44	4
Benzene	ND		4.0		ug/L			10/13/17 17:44	4
Bromobenzene	ND		4.0		ug/L			10/13/17 17:44	4
Bromoform	ND		4.0		ug/L			10/13/17 17:44	4
Bromomethane	ND		8.0		ug/L			10/13/17 17:44	4
Carbon disulfide	ND		40		ug/L			10/13/17 17:44	4
Carbon tetrachloride	ND		4.0		ug/L			10/13/17 17:44	4
Chlorobenzene	ND		4.0		ug/L			10/13/17 17:44	4
Chlorobromomethane	ND		4.0		ug/L			10/13/17 17:44	4
Chlorodibromomethane	ND		2.0		ug/L			10/13/17 17:44	4
Chloroethane	ND		8.0		ug/L			10/13/17 17:44	4
Chloroform	ND		4.0		ug/L			10/13/17 17:44	4
Chloromethane	ND		8.0		ug/L			10/13/17 17:44	4
<b>cis-1,2-Dichloroethene</b>	<b>95</b>		4.0		ug/L			10/13/17 17:44	4
cis-1,3-Dichloropropene	ND		1.6		ug/L			10/13/17 17:44	4
Dichlorobromomethane	ND		2.0		ug/L			10/13/17 17:44	4
Dichlorodifluoromethane	ND		4.0		ug/L			10/13/17 17:44	4
Ethyl ether	ND		4.0		ug/L			10/13/17 17:44	4
Ethylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
Ethylene Dibromide	ND		4.0		ug/L			10/13/17 17:44	4
Hexachlorobutadiene	ND		1.6		ug/L			10/13/17 17:44	4
Isopropyl ether	ND		40		ug/L			10/13/17 17:44	4
Isopropylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
Methyl tert-butyl ether	ND		4.0		ug/L			10/13/17 17:44	4
Methylene Chloride	ND		4.0		ug/L			10/13/17 17:44	4
m-Xylene & p-Xylene	ND		8.0		ug/L			10/13/17 17:44	4
Naphthalene	ND		20		ug/L			10/13/17 17:44	4
n-Butylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
N-Propylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
o-Xylene	ND		4.0		ug/L			10/13/17 17:44	4
sec-Butylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
Styrene	ND		4.0		ug/L			10/13/17 17:44	4
Tert-amyl methyl ether	ND		20		ug/L			10/13/17 17:44	4
Tert-butyl ethyl ether	ND		20		ug/L			10/13/17 17:44	4
tert-Butylbenzene	ND		4.0		ug/L			10/13/17 17:44	4
Tetrachloroethene	ND		4.0		ug/L			10/13/17 17:44	4
Tetrahydrofuran	ND		40		ug/L			10/13/17 17:44	4
Toluene	ND		4.0		ug/L			10/13/17 17:44	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			10/13/17 17:44	4
trans-1,3-Dichloropropene	ND		1.6		ug/L			10/13/17 17:44	4
<b>Trichloroethene</b>	<b>180</b>		4.0		ug/L			10/13/17 17:44	4
Trichlorofluoromethane	ND		4.0		ug/L			10/13/17 17:44	4
<b>Vinyl chloride</b>	<b>4.9</b>		4.0		ug/L			10/13/17 17:44	4
Dibromomethane	ND		4.0		ug/L			10/13/17 17:44	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		70 - 130		10/13/17 17:44	4
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/13/17 17:44	4
4-Bromofluorobenzene (Surr)	84		70 - 130		10/13/17 17:44	4

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-268S-20171004**

**Lab Sample ID: 480-125314-4**

Date Collected: 10/04/17 11:45

Matrix: Water

Date Received: 10/05/17 01:20

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	14		0.20		ug/L		10/09/17 21:57	10/11/17 14:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	77		46 - 130				10/09/17 21:57	10/11/17 14:44	1

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.42		0.050		mg/L		10/05/17 09:20	10/06/17 12:27	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		0.50		mg/L			10/09/17 13:10	1
Sulfate	31		2.0		mg/L			10/09/17 13:10	1
Ammonia	0.27		0.20		mg/L		10/06/17 08:16	10/06/17 11:00	1
Nitrate as N	ND		0.050		mg/L			10/05/17 17:09	1
TOC Result 1	53		1.0		mg/L			10/06/17 02:10	1
TOC Result 2	55		1.0		mg/L			10/06/17 02:10	1
Total Organic Carbon - Duplicates	54		1.0		mg/L			10/06/17 02:10	1
Alkalinity, Total	96		5.0		mg/L			10/05/17 18:09	1
ortho-Phosphate	0.10		0.020		mg/L			10/05/17 08:14	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	9.6	HF	0.1		SU			10/05/17 17:47	1
Temperature	22.7	HF	0.001		Degrees C			10/05/17 17:47	1

**Client Sample ID: MW-268M-20171004**

**Lab Sample ID: 480-125314-5**

Date Collected: 10/04/17 12:35

Matrix: Water

Date Received: 10/05/17 01:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			10/13/17 18:08	2
1,1,1-Trichloroethane	ND		2.0		ug/L			10/13/17 18:08	2
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			10/13/17 18:08	2
1,1,2-Trichloroethane	ND		2.0		ug/L			10/13/17 18:08	2
1,1-Dichloroethane	2.0		2.0		ug/L			10/13/17 18:08	2
1,1-Dichloroethene	ND		2.0		ug/L			10/13/17 18:08	2
1,1-Dichloropropene	ND		2.0		ug/L			10/13/17 18:08	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,2,3-Trichloropropane	ND		2.0		ug/L			10/13/17 18:08	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,2,4-Trimethylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			10/13/17 18:08	2
1,2-Dichlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,2-Dichloroethane	ND		2.0		ug/L			10/13/17 18:08	2
1,2-Dichloropropane	ND		2.0		ug/L			10/13/17 18:08	2
1,3,5-Trimethylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,3-Dichlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,3-Dichloropropane	ND		2.0		ug/L			10/13/17 18:08	2
1,4-Dichlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
1,4-Dioxane	ND	*	100		ug/L			10/13/17 18:08	2

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-268M-20171004**

**Lab Sample ID: 480-125314-5**

**Date Collected: 10/04/17 12:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		2.0		ug/L			10/13/17 18:08	2
<b>2-Butanone (MEK)</b>	<b>74</b>	*	20		ug/L			10/13/17 18:08	2
2-Chlorotoluene	ND		2.0		ug/L			10/13/17 18:08	2
2-Hexanone	ND		20		ug/L			10/13/17 18:08	2
4-Chlorotoluene	ND		2.0		ug/L			10/13/17 18:08	2
4-Isopropyltoluene	ND		2.0		ug/L			10/13/17 18:08	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			10/13/17 18:08	2
Acetone	ND		100		ug/L			10/13/17 18:08	2
Benzene	ND		2.0		ug/L			10/13/17 18:08	2
Bromobenzene	ND		2.0		ug/L			10/13/17 18:08	2
Bromoform	ND		2.0		ug/L			10/13/17 18:08	2
Bromomethane	ND		4.0		ug/L			10/13/17 18:08	2
Carbon disulfide	ND		20		ug/L			10/13/17 18:08	2
Carbon tetrachloride	ND		2.0		ug/L			10/13/17 18:08	2
Chlorobenzene	ND		2.0		ug/L			10/13/17 18:08	2
Chlorobromomethane	ND		2.0		ug/L			10/13/17 18:08	2
Chlorodibromomethane	ND		1.0		ug/L			10/13/17 18:08	2
Chloroethane	ND		4.0		ug/L			10/13/17 18:08	2
Chloroform	ND		2.0		ug/L			10/13/17 18:08	2
Chloromethane	ND		4.0		ug/L			10/13/17 18:08	2
<b>cis-1,2-Dichloroethene</b>	<b>5.3</b>		2.0		ug/L			10/13/17 18:08	2
cis-1,3-Dichloropropene	ND		0.80		ug/L			10/13/17 18:08	2
Dichlorobromomethane	ND		1.0		ug/L			10/13/17 18:08	2
Dichlorodifluoromethane	ND		2.0		ug/L			10/13/17 18:08	2
Ethyl ether	ND		2.0		ug/L			10/13/17 18:08	2
Ethylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
Ethylene Dibromide	ND		2.0		ug/L			10/13/17 18:08	2
Hexachlorobutadiene	ND		0.80		ug/L			10/13/17 18:08	2
Isopropyl ether	ND		20		ug/L			10/13/17 18:08	2
Isopropylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
Methyl tert-butyl ether	ND		2.0		ug/L			10/13/17 18:08	2
Methylene Chloride	ND		2.0		ug/L			10/13/17 18:08	2
m-Xylene & p-Xylene	ND		4.0		ug/L			10/13/17 18:08	2
Naphthalene	ND		10		ug/L			10/13/17 18:08	2
n-Butylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
N-Propylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
o-Xylene	ND		2.0		ug/L			10/13/17 18:08	2
sec-Butylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
Styrene	ND		2.0		ug/L			10/13/17 18:08	2
Tert-amyl methyl ether	ND		10		ug/L			10/13/17 18:08	2
Tert-butyl ethyl ether	ND		10		ug/L			10/13/17 18:08	2
tert-Butylbenzene	ND		2.0		ug/L			10/13/17 18:08	2
Tetrachloroethene	ND		2.0		ug/L			10/13/17 18:08	2
Tetrahydrofuran	ND		20		ug/L			10/13/17 18:08	2
<b>Toluene</b>	<b>5.9</b>		2.0		ug/L			10/13/17 18:08	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			10/13/17 18:08	2
trans-1,3-Dichloropropene	ND		0.80		ug/L			10/13/17 18:08	2
Trichloroethene	ND		2.0		ug/L			10/13/17 18:08	2
Trichlorofluoromethane	ND		2.0		ug/L			10/13/17 18:08	2

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-268M-20171004**

**Lab Sample ID: 480-125314-5**

Date Collected: 10/04/17 12:35

Matrix: Water

Date Received: 10/05/17 01:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	44		2.0		ug/L			10/13/17 18:08	2
Dibromomethane	ND		2.0		ug/L			10/13/17 18:08	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Toluene-d8 (Surr)	98		70 - 130					10/13/17 18:08	2
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					10/13/17 18:08	2
4-Bromofluorobenzene (Surr)	85		70 - 130					10/13/17 18:08	2

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	6.2		0.20		ug/L		10/09/17 21:57	10/11/17 14:58	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,4-Dioxane-d8 (Surr)	76		46 - 130				10/09/17 21:57	10/11/17 14:58	1

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	48		0.050		mg/L		10/05/17 09:20	10/05/17 17:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40		1.0		mg/L			10/09/17 13:51	2
Sulfate	ND		4.0		mg/L			10/09/17 13:51	2
Ammonia	0.25		0.20		mg/L		10/06/17 08:16	10/06/17 10:36	1
Nitrate as N	ND		0.050		mg/L			10/05/17 17:10	1
TOC Result 1	37		1.0		mg/L			10/06/17 02:36	1
TOC Result 2	37		1.0		mg/L			10/06/17 02:36	1
Total Organic Carbon - Duplicates	37		1.0		mg/L			10/06/17 02:36	1
Alkalinity, Total	420		5.0		mg/L			10/05/17 18:15	1
ortho-Phosphate	ND		0.020		mg/L			10/05/17 08:14	1
<b>Analyte</b>	<b>Result</b>	<b>Qualifier</b>	<b>RL</b>	<b>RL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
pH	7.1	HF	0.1		SU			10/05/17 17:49	1
Temperature	22.8	HF	0.001		Degrees C			10/05/17 17:49	1

**Client Sample ID: MW-552-20171004**

**Lab Sample ID: 480-125314-6**

Date Collected: 10/04/17 09:25

Matrix: Water

Date Received: 10/05/17 01:20

**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			10/13/17 18:31	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/13/17 18:31	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/17 18:31	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/13/17 18:31	1
1,1-Dichloroethane	ND		1.0		ug/L			10/13/17 18:31	1
1,1-Dichloroethene	ND		1.0		ug/L			10/13/17 18:31	1
1,1-Dichloropropene	ND		1.0		ug/L			10/13/17 18:31	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/13/17 18:31	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/13/17 18:31	1

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# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-552-20171004**

**Lab Sample ID: 480-125314-6**

**Date Collected: 10/04/17 09:25**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/17 18:31	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,2-Dichloroethane	ND		1.0		ug/L			10/13/17 18:31	1
1,2-Dichloropropane	ND		1.0		ug/L			10/13/17 18:31	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,3-Dichloropropane	ND		1.0		ug/L			10/13/17 18:31	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
1,4-Dioxane	ND	*	50		ug/L			10/13/17 18:31	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/17 18:31	1
2-Butanone (MEK)	ND	*	10		ug/L			10/13/17 18:31	1
2-Chlorotoluene	ND		1.0		ug/L			10/13/17 18:31	1
2-Hexanone	ND		10		ug/L			10/13/17 18:31	1
4-Chlorotoluene	ND		1.0		ug/L			10/13/17 18:31	1
4-Isopropyltoluene	ND		1.0		ug/L			10/13/17 18:31	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/13/17 18:31	1
Acetone	ND		50		ug/L			10/13/17 18:31	1
Benzene	ND		1.0		ug/L			10/13/17 18:31	1
Bromobenzene	ND		1.0		ug/L			10/13/17 18:31	1
Bromoform	ND		1.0		ug/L			10/13/17 18:31	1
Bromomethane	ND		2.0		ug/L			10/13/17 18:31	1
Carbon disulfide	ND		10		ug/L			10/13/17 18:31	1
Carbon tetrachloride	ND		1.0		ug/L			10/13/17 18:31	1
Chlorobenzene	ND		1.0		ug/L			10/13/17 18:31	1
Chlorobromomethane	ND		1.0		ug/L			10/13/17 18:31	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/17 18:31	1
Chloroethane	ND		2.0		ug/L			10/13/17 18:31	1
Chloroform	ND		1.0		ug/L			10/13/17 18:31	1
Chloromethane	ND		2.0		ug/L			10/13/17 18:31	1
<b>cis-1,2-Dichloroethene</b>	<b>1.8</b>		1.0		ug/L			10/13/17 18:31	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 18:31	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/17 18:31	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/17 18:31	1
Ethyl ether	ND		1.0		ug/L			10/13/17 18:31	1
Ethylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
Ethylene Dibromide	ND		1.0		ug/L			10/13/17 18:31	1
Hexachlorobutadiene	ND		0.40		ug/L			10/13/17 18:31	1
Isopropyl ether	ND		10		ug/L			10/13/17 18:31	1
Isopropylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/13/17 18:31	1
Methylene Chloride	ND		1.0		ug/L			10/13/17 18:31	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/13/17 18:31	1
Naphthalene	ND		5.0		ug/L			10/13/17 18:31	1
n-Butylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
N-Propylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
o-Xylene	ND		1.0		ug/L			10/13/17 18:31	1
sec-Butylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
Styrene	ND		1.0		ug/L			10/13/17 18:31	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/13/17 18:31	1

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# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-552-20171004**

**Lab Sample ID: 480-125314-6**

Date Collected: 10/04/17 09:25

Matrix: Water

Date Received: 10/05/17 01:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tert-butyl ethyl ether	ND		5.0		ug/L			10/13/17 18:31	1
tert-Butylbenzene	ND		1.0		ug/L			10/13/17 18:31	1
Tetrachloroethene	ND		1.0		ug/L			10/13/17 18:31	1
Tetrahydrofuran	ND		10		ug/L			10/13/17 18:31	1
Toluene	ND		1.0		ug/L			10/13/17 18:31	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/13/17 18:31	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 18:31	1
Trichloroethene	ND		1.0		ug/L			10/13/17 18:31	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/17 18:31	1
Vinyl chloride	ND		1.0		ug/L			10/13/17 18:31	1
Dibromomethane	ND		1.0		ug/L			10/13/17 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		70 - 130					10/13/17 18:31	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130					10/13/17 18:31	1
4-Bromofluorobenzene (Surr)	86		70 - 130					10/13/17 18:31	1

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>0.55</b>		0.20		ug/L		10/09/17 21:57	10/10/17 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	78		46 - 130				10/09/17 21:57	10/10/17 18:17	1

## Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Iron</b>	<b>19</b>		0.050		mg/L		10/05/17 09:20	10/05/17 17:42	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>11</b>		1.0		mg/L			10/09/17 13:59	2
Sulfate	ND		4.0		mg/L			10/09/17 13:59	2
<b>Ammonia</b>	<b>0.26</b>		0.20		mg/L		10/06/17 08:16	10/06/17 10:37	1
Nitrate as N	ND		0.050		mg/L			10/05/17 17:11	1
<b>TOC Result 1</b>	<b>3.1</b>		1.0		mg/L			10/06/17 03:03	1
<b>TOC Result 2</b>	<b>2.5</b>		1.0		mg/L			10/06/17 03:03	1
<b>Total Organic Carbon - Duplicates</b>	<b>2.8</b>		1.0		mg/L			10/06/17 03:03	1
<b>Alkalinity, Total</b>	<b>300</b>		5.0		mg/L			10/05/17 18:21	1
<b>ortho-Phosphate</b>	<b>0.061</b>		0.020		mg/L			10/05/17 08:14	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>pH</b>	<b>7.1</b>	<b>HF</b>	0.1		SU			10/05/17 17:52	1
<b>Temperature</b>	<b>22.9</b>	<b>HF</b>	0.001		Degrees C			10/05/17 17:52	1

**Client Sample ID: DUP2-20171004**

**Lab Sample ID: 480-125314-7**

Date Collected: 10/04/17 00:00

Matrix: Water

Date Received: 10/05/17 01:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			10/13/17 18:55	5
1,1,1-Trichloroethane	ND		5.0		ug/L			10/13/17 18:55	5

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: DUP2-20171004**

**Lab Sample ID: 480-125314-7**

**Date Collected: 10/04/17 00:00**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			10/13/17 18:55	5
1,1,2-Trichloroethane	ND		5.0		ug/L			10/13/17 18:55	5
1,1-Dichloroethane	ND		5.0		ug/L			10/13/17 18:55	5
1,1-Dichloroethene	ND		5.0		ug/L			10/13/17 18:55	5
1,1-Dichloropropene	ND		5.0		ug/L			10/13/17 18:55	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,2,3-Trichloropropane	ND		5.0		ug/L			10/13/17 18:55	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,2,4-Trimethylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,2-Dibromo-3-Chloropropane	ND		25		ug/L			10/13/17 18:55	5
1,2-Dichlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,2-Dichloroethane	ND		5.0		ug/L			10/13/17 18:55	5
1,2-Dichloropropane	ND		5.0		ug/L			10/13/17 18:55	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,3-Dichlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,3-Dichloropropane	ND		5.0		ug/L			10/13/17 18:55	5
1,4-Dichlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
1,4-Dioxane	ND *		250		ug/L			10/13/17 18:55	5
2,2-Dichloropropane	ND		5.0		ug/L			10/13/17 18:55	5
2-Butanone (MEK)	ND *		50		ug/L			10/13/17 18:55	5
2-Chlorotoluene	ND		5.0		ug/L			10/13/17 18:55	5
2-Hexanone	ND		50		ug/L			10/13/17 18:55	5
4-Chlorotoluene	ND		5.0		ug/L			10/13/17 18:55	5
4-Isopropyltoluene	ND		5.0		ug/L			10/13/17 18:55	5
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			10/13/17 18:55	5
Acetone	ND		250		ug/L			10/13/17 18:55	5
Benzene	ND		5.0		ug/L			10/13/17 18:55	5
Bromobenzene	ND		5.0		ug/L			10/13/17 18:55	5
Bromoform	ND		5.0		ug/L			10/13/17 18:55	5
Bromomethane	ND		10		ug/L			10/13/17 18:55	5
Carbon disulfide	ND		50		ug/L			10/13/17 18:55	5
Carbon tetrachloride	ND		5.0		ug/L			10/13/17 18:55	5
Chlorobenzene	ND		5.0		ug/L			10/13/17 18:55	5
Chlorobromomethane	ND		5.0		ug/L			10/13/17 18:55	5
Chlorodibromomethane	ND		2.5		ug/L			10/13/17 18:55	5
Chloroethane	ND		10		ug/L			10/13/17 18:55	5
Chloroform	ND		5.0		ug/L			10/13/17 18:55	5
Chloromethane	ND		10		ug/L			10/13/17 18:55	5
<b>cis-1,2-Dichloroethene</b>	<b>92</b>		5.0		ug/L			10/13/17 18:55	5
cis-1,3-Dichloropropene	ND		2.0		ug/L			10/13/17 18:55	5
Dichlorobromomethane	ND		2.5		ug/L			10/13/17 18:55	5
Dichlorodifluoromethane	ND		5.0		ug/L			10/13/17 18:55	5
Ethyl ether	ND		5.0		ug/L			10/13/17 18:55	5
Ethylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
Ethylene Dibromide	ND		5.0		ug/L			10/13/17 18:55	5
Hexachlorobutadiene	ND		2.0		ug/L			10/13/17 18:55	5
Isopropyl ether	ND		50		ug/L			10/13/17 18:55	5
Isopropylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
Methyl tert-butyl ether	ND		5.0		ug/L			10/13/17 18:55	5

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: DUP2-20171004**

**Lab Sample ID: 480-125314-7**

**Date Collected: 10/04/17 00:00**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0		ug/L			10/13/17 18:55	5
m-Xylene & p-Xylene	ND		10		ug/L			10/13/17 18:55	5
Naphthalene	ND		25		ug/L			10/13/17 18:55	5
n-Butylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
N-Propylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
o-Xylene	ND		5.0		ug/L			10/13/17 18:55	5
sec-Butylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
Styrene	ND		5.0		ug/L			10/13/17 18:55	5
Tert-amyl methyl ether	ND		25		ug/L			10/13/17 18:55	5
Tert-butyl ethyl ether	ND		25		ug/L			10/13/17 18:55	5
tert-Butylbenzene	ND		5.0		ug/L			10/13/17 18:55	5
Tetrachloroethene	ND		5.0		ug/L			10/13/17 18:55	5
Tetrahydrofuran	ND		50		ug/L			10/13/17 18:55	5
Toluene	ND		5.0		ug/L			10/13/17 18:55	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/13/17 18:55	5
trans-1,3-Dichloropropene	ND		2.0		ug/L			10/13/17 18:55	5
<b>Trichloroethene</b>	<b>180</b>		5.0		ug/L			10/13/17 18:55	5
Trichlorofluoromethane	ND		5.0		ug/L			10/13/17 18:55	5
Vinyl chloride	ND		5.0		ug/L			10/13/17 18:55	5
Dibromomethane	ND		5.0		ug/L			10/13/17 18:55	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/13/17 18:55	5
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/13/17 18:55	5
4-Bromofluorobenzene (Surr)	86		70 - 130		10/13/17 18:55	5

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>13</b>		0.20		ug/L		10/09/17 21:57	10/10/17 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	72		46 - 130	10/09/17 21:57	10/10/17 18:44	1

# Surrogate Summary

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

TestAmerica Job ID: 480-125314-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	12DCE (70-130)	BFB (70-130)
480-125314-1	MW-261S-20171004	99	91	83
480-125314-2	MW-265M-20171004	101	100	81
480-125314-3	MW-267S-20171004	103	94	86
480-125314-4	MW-268S-20171004	105	95	84
480-125314-5	MW-268M-20171004	98	94	85
480-125314-6	MW-552-20171004	96	97	86
480-125314-7	DUP2-20171004	100	94	86
LCS 480-381639/5	Lab Control Sample	102	95	92
LCSD 480-381639/9	Lab Control Sample Dup	99	94	85
MB 480-381639/7	Method Blank	102	91	88

#### Surrogate Legend

TOL = Toluene-d8 (Surr)

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

BFB = 4-Bromofluorobenzene (Surr)

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	14DD8
		(46-130)
480-125314-1	MW-261S-20171004	86
480-125314-2	MW-265M-20171004	25 X
480-125314-3	MW-267S-20171004	16 X
480-125314-4	MW-268S-20171004	77
480-125314-5	MW-268M-20171004	76
480-125314-6	MW-552-20171004	78
480-125314-7	DUP2-20171004	72
LCS 200-121936/2-A	Lab Control Sample	85
LCSD 200-121936/3-A	Lab Control Sample Dup	79
MB 200-121936/1-A	Method Blank	76

#### Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

Lab Sample ID: MB 480-381639/7

Matrix: Water

Analysis Batch: 381639

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			10/13/17 11:12	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/13/17 11:12	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/13/17 11:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/13/17 11:12	1
1,1-Dichloroethane	ND		1.0		ug/L			10/13/17 11:12	1
1,1-Dichloroethene	ND		1.0		ug/L			10/13/17 11:12	1
1,1-Dichloropropene	ND		1.0		ug/L			10/13/17 11:12	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/13/17 11:12	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/13/17 11:12	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,2-Dichloroethane	ND		1.0		ug/L			10/13/17 11:12	1
1,2-Dichloropropane	ND		1.0		ug/L			10/13/17 11:12	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,3-Dichloropropane	ND		1.0		ug/L			10/13/17 11:12	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
1,4-Dioxane	ND		50		ug/L			10/13/17 11:12	1
2,2-Dichloropropane	ND		1.0		ug/L			10/13/17 11:12	1
2-Butanone (MEK)	ND		10		ug/L			10/13/17 11:12	1
2-Chlorotoluene	ND		1.0		ug/L			10/13/17 11:12	1
2-Hexanone	ND		10		ug/L			10/13/17 11:12	1
4-Chlorotoluene	ND		1.0		ug/L			10/13/17 11:12	1
4-Isopropyltoluene	ND		1.0		ug/L			10/13/17 11:12	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/13/17 11:12	1
Acetone	ND		50		ug/L			10/13/17 11:12	1
Benzene	ND		1.0		ug/L			10/13/17 11:12	1
Bromobenzene	ND		1.0		ug/L			10/13/17 11:12	1
Bromoform	ND		1.0		ug/L			10/13/17 11:12	1
Bromomethane	ND		2.0		ug/L			10/13/17 11:12	1
Carbon disulfide	ND		10		ug/L			10/13/17 11:12	1
Carbon tetrachloride	ND		1.0		ug/L			10/13/17 11:12	1
Chlorobenzene	ND		1.0		ug/L			10/13/17 11:12	1
Chlorobromomethane	ND		1.0		ug/L			10/13/17 11:12	1
Chlorodibromomethane	ND		0.50		ug/L			10/13/17 11:12	1
Chloroethane	ND		2.0		ug/L			10/13/17 11:12	1
Chloroform	ND		1.0		ug/L			10/13/17 11:12	1
Chloromethane	ND		2.0		ug/L			10/13/17 11:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/13/17 11:12	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 11:12	1
Dichlorobromomethane	ND		0.50		ug/L			10/13/17 11:12	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/13/17 11:12	1
Ethyl ether	ND		1.0		ug/L			10/13/17 11:12	1
Ethylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
Ethylene Dibromide	ND		1.0		ug/L			10/13/17 11:12	1
Hexachlorobutadiene	ND		0.40		ug/L			10/13/17 11:12	1

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# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

**Lab Sample ID: MB 480-381639/7**  
**Matrix: Water**  
**Analysis Batch: 381639**

**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			10/13/17 11:12	1
Isopropylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/13/17 11:12	1
Methylene Chloride	ND		1.0		ug/L			10/13/17 11:12	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/13/17 11:12	1
Naphthalene	ND		5.0		ug/L			10/13/17 11:12	1
n-Butylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
N-Propylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
o-Xylene	ND		1.0		ug/L			10/13/17 11:12	1
sec-Butylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
Styrene	ND		1.0		ug/L			10/13/17 11:12	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/13/17 11:12	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/13/17 11:12	1
tert-Butylbenzene	ND		1.0		ug/L			10/13/17 11:12	1
Tetrachloroethene	ND		1.0		ug/L			10/13/17 11:12	1
Tetrahydrofuran	ND		10		ug/L			10/13/17 11:12	1
Toluene	ND		1.0		ug/L			10/13/17 11:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/13/17 11:12	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/13/17 11:12	1
Trichloroethene	ND		1.0		ug/L			10/13/17 11:12	1
Trichlorofluoromethane	ND		1.0		ug/L			10/13/17 11:12	1
Vinyl chloride	ND		1.0		ug/L			10/13/17 11:12	1
Dibromomethane	ND		1.0		ug/L			10/13/17 11:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		70 - 130		10/13/17 11:12	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		10/13/17 11:12	1
4-Bromofluorobenzene (Surr)	88		70 - 130		10/13/17 11:12	1

**Lab Sample ID: LCS 480-381639/5**  
**Matrix: Water**  
**Analysis Batch: 381639**

**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	24.4		ug/L		97	70 - 130
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	25.0	30.8		ug/L		123	70 - 130
1,1,2-Trichloroethane	25.0	27.8		ug/L		111	70 - 130
1,1-Dichloroethane	25.0	26.1		ug/L		104	70 - 130
1,1-Dichloroethene	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	26.8		ug/L		107	70 - 130
1,2,3-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 130
1,2,3-Trichloropropane	25.0	26.4		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	25.0	21.2		ug/L		85	70 - 130
1,2,4-Trimethylbenzene	25.0	27.3		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.7		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
1,2-Dichloroethane	25.0	25.5		ug/L		102	70 - 130

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

Lab Sample ID: LCS 480-381639/5

Matrix: Water

Analysis Batch: 381639

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	23.3		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 130
1,3-Dichlorobenzene	25.0	26.1		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	30.7		ug/L		123	70 - 130
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,4-Dioxane	500	510		ug/L		102	70 - 130
2,2-Dichloropropane	25.0	25.6		ug/L		102	70 - 130
2-Butanone (MEK)	125	228	*	ug/L		182	70 - 130
2-Chlorotoluene	25.0	25.4		ug/L		102	70 - 130
2-Hexanone	125	143		ug/L		114	70 - 130
4-Chlorotoluene	25.0	28.4		ug/L		114	70 - 130
4-Isopropyltoluene	25.0	26.5		ug/L		106	70 - 130
4-Methyl-2-pentanone (MIBK)	125	138		ug/L		110	70 - 130
Acetone	125	159		ug/L		127	70 - 130
Benzene	25.0	27.5		ug/L		110	70 - 130
Bromobenzene	25.0	23.4		ug/L		93	70 - 130
Bromoform	25.0	21.1		ug/L		85	70 - 130
Bromomethane	25.0	22.3		ug/L		89	70 - 130
Carbon disulfide	25.0	27.1		ug/L		109	70 - 130
Carbon tetrachloride	25.0	22.2		ug/L		89	70 - 130
Chlorobenzene	25.0	26.2		ug/L		105	70 - 130
Chlorobromomethane	25.0	22.9		ug/L		92	70 - 130
Chlorodibromomethane	25.0	23.2		ug/L		93	70 - 130
Chloroethane	25.0	22.9		ug/L		92	70 - 130
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	24.2		ug/L		97	70 - 130
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	70 - 130
cis-1,3-Dichloropropene	25.0	23.6		ug/L		95	70 - 130
Dichlorobromomethane	25.0	24.0		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	27.3		ug/L		109	70 - 130
Ethyl ether	25.0	21.7		ug/L		87	70 - 130
Ethylbenzene	25.0	27.6		ug/L		111	70 - 130
Ethylene Dibromide	25.0	27.1		ug/L		109	70 - 130
Hexachlorobutadiene	25.0	22.6		ug/L		90	70 - 130
Isopropyl ether	25.0	24.0		ug/L		96	70 - 130
Isopropylbenzene	25.0	27.8		ug/L		111	70 - 130
Methyl tert-butyl ether	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	22.0		ug/L		88	70 - 130
m-Xylene & p-Xylene	25.0	25.6		ug/L		102	70 - 130
Naphthalene	25.0	25.7		ug/L		103	70 - 130
n-Butylbenzene	25.0	29.6		ug/L		118	70 - 130
N-Propylbenzene	25.0	29.6		ug/L		118	70 - 130
o-Xylene	25.0	25.2		ug/L		101	70 - 130
sec-Butylbenzene	25.0	27.9		ug/L		112	70 - 130
Styrene	25.0	26.0		ug/L		104	70 - 130
Tert-amyl methyl ether	25.0	25.2		ug/L		101	70 - 130
Tert-butyl ethyl ether	25.0	24.1		ug/L		96	70 - 130
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 130

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

**Lab Sample ID: LCS 480-381639/5**

**Matrix: Water**

**Analysis Batch: 381639**

**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	27.5		ug/L		110	70 - 130
Tetrahydrofuran	50.0	61.4		ug/L		123	70 - 130
Toluene	25.0	27.8		ug/L		111	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	27.5		ug/L		110	70 - 130
Trichloroethene	25.0	24.1		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	25.0		ug/L		100	70 - 130
Vinyl chloride	25.0	24.5		ug/L		98	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	92		70 - 130

**Lab Sample ID: LCSD 480-381639/9**

**Matrix: Water**

**Analysis Batch: 381639**

**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	24.3		ug/L		97	70 - 130	0	20
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	7	20
1,1,1,2,2-Tetrachloroethane	25.0	32.1		ug/L		128	70 - 130	4	20
1,1,1,2-Trichloroethane	25.0	26.8		ug/L		107	70 - 130	4	20
1,1-Dichloroethane	25.0	27.6		ug/L		110	70 - 130	5	20
1,1-Dichloroethene	25.0	25.7		ug/L		103	70 - 130	7	20
1,1-Dichloropropene	25.0	29.5		ug/L		118	70 - 130	10	20
1,2,3-Trichlorobenzene	25.0	23.3		ug/L		93	70 - 130	7	20
1,2,3-Trichloropropane	25.0	28.1		ug/L		112	70 - 130	6	20
1,2,4-Trichlorobenzene	25.0	21.9		ug/L		88	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	28.9		ug/L		116	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	25.2		ug/L		101	70 - 130	2	20
1,2-Dichlorobenzene	25.0	28.3		ug/L		113	70 - 130	5	20
1,2-Dichloroethane	25.0	25.2		ug/L		101	70 - 130	1	20
1,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	10	20
1,3,5-Trimethylbenzene	25.0	29.6		ug/L		118	70 - 130	10	20
1,3-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	2	20
1,3-Dichloropropane	25.0	30.1		ug/L		121	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.8		ug/L		111	70 - 130	10	20
1,4-Dioxane	500	675	*	ug/L		135	70 - 130	28	20
2,2-Dichloropropane	25.0	26.4		ug/L		106	70 - 130	3	20
2-Butanone (MEK)	125	232	*	ug/L		185	70 - 130	2	20
2-Chlorotoluene	25.0	27.7		ug/L		111	70 - 130	9	20
2-Hexanone	125	144		ug/L		116	70 - 130	1	20
4-Chlorotoluene	25.0	29.7		ug/L		119	70 - 130	4	20
4-Isopropyltoluene	25.0	29.3		ug/L		117	70 - 130	10	20
4-Methyl-2-pentanone (MIBK)	125	136		ug/L		109	70 - 130	1	20
Acetone	125	163		ug/L		130	70 - 130	2	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

Lab Sample ID: LCSD 480-381639/9

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 381639

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	28.1		ug/L		112	70 - 130	2	20
Bromobenzene	25.0	25.1		ug/L		100	70 - 130	7	20
Bromoform	25.0	21.9		ug/L		88	70 - 130	4	20
Bromomethane	25.0	22.7		ug/L		91	70 - 130	2	20
Carbon disulfide	25.0	29.2		ug/L		117	70 - 130	7	20
Carbon tetrachloride	25.0	23.5		ug/L		94	70 - 130	6	20
Chlorobenzene	25.0	27.2		ug/L		109	70 - 130	4	20
Chlorobromomethane	25.0	22.8		ug/L		91	70 - 130	0	20
Chlorodibromomethane	25.0	23.5		ug/L		94	70 - 130	1	20
Chloroethane	25.0	24.0		ug/L		96	70 - 130	5	20
Chloroform	25.0	25.0		ug/L		100	70 - 130	5	20
Chloromethane	25.0	25.2		ug/L		101	70 - 130	4	20
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	70 - 130	0	20
cis-1,3-Dichloropropene	25.0	23.8		ug/L		95	70 - 130	1	20
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130	3	20
Dichlorodifluoromethane	25.0	29.1		ug/L		116	70 - 130	6	20
Ethyl ether	25.0	23.6		ug/L		95	70 - 130	8	20
Ethylbenzene	25.0	28.7		ug/L		115	70 - 130	4	20
Ethylene Dibromide	25.0	26.3		ug/L		105	70 - 130	3	20
Hexachlorobutadiene	25.0	25.6		ug/L		103	70 - 130	13	20
Isopropyl ether	25.0	24.6		ug/L		98	70 - 130	3	20
Isopropylbenzene	25.0	30.6		ug/L		122	70 - 130	10	20
Methyl tert-butyl ether	25.0	25.8		ug/L		103	70 - 130	3	20
Methylene Chloride	25.0	22.9		ug/L		91	70 - 130	4	20
m-Xylene & p-Xylene	25.0	26.5		ug/L		106	70 - 130	3	20
Naphthalene	25.0	27.9		ug/L		111	70 - 130	8	20
n-Butylbenzene	25.0	32.2		ug/L		129	70 - 130	9	20
N-Propylbenzene	25.0	31.6		ug/L		126	70 - 130	7	20
o-Xylene	25.0	26.6		ug/L		106	70 - 130	5	20
sec-Butylbenzene	25.0	30.5		ug/L		122	70 - 130	9	20
Styrene	25.0	27.0		ug/L		108	70 - 130	4	20
Tert-amyl methyl ether	25.0	26.2		ug/L		105	70 - 130	4	20
Tert-butyl ethyl ether	25.0	25.1		ug/L		100	70 - 130	4	20
tert-Butylbenzene	25.0	27.1		ug/L		108	70 - 130	6	20
Tetrachloroethene	25.0	28.5		ug/L		114	70 - 130	4	20
Tetrahydrofuran	50.0	59.6		ug/L		119	70 - 130	3	20
Toluene	25.0	27.4		ug/L		110	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	27.2		ug/L		109	70 - 130	1	20
Trichloroethene	25.0	24.8		ug/L		99	70 - 130	3	20
Trichlorofluoromethane	25.0	26.1		ug/L		104	70 - 130	4	20
Vinyl chloride	25.0	26.5		ug/L		106	70 - 130	8	20
Dibromomethane	25.0	24.5		ug/L		98	70 - 130	2	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	85		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

**Lab Sample ID: MB 200-121936/1-A**  
**Matrix: Water**  
**Analysis Batch: 121975**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 121936**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		10/09/17 21:57	10/10/17 16:03	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	76		46 - 130				10/09/17 21:57	10/10/17 16:03	1

**Lab Sample ID: LCS 200-121936/2-A**  
**Matrix: Water**  
**Analysis Batch: 121975**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 121936**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
1,4-Dioxane	2.00	1.68		ug/L		84	70 - 130		
Surrogate	%Recovery	LCS Qualifier	Limits						
1,4-Dioxane-d8 (Surr)	85		46 - 130						

**Lab Sample ID: LCSD 200-121936/3-A**  
**Matrix: Water**  
**Analysis Batch: 121975**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 121936**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,4-Dioxane	2.00	1.64		ug/L		82	70 - 130	3	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
1,4-Dioxane-d8 (Surr)	79		46 - 130						

## Method: 6010 - Metals (ICP)

**Lab Sample ID: MB 480-380344/1-A**  
**Matrix: Water**  
**Analysis Batch: 380579**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 380344**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		10/05/17 09:20	10/05/17 16:39	1

**Lab Sample ID: LCS 480-380344/2-A**  
**Matrix: Water**  
**Analysis Batch: 380579**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 380344**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Iron	10.0	9.92		mg/L		99	80 - 120		

**Lab Sample ID: LCSD 480-380344/3-A**  
**Matrix: Water**  
**Analysis Batch: 380579**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 380344**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron	10.0	9.93		mg/L		99	80 - 120	0	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

## Method: 6010 - Metals (ICP) (Continued)

**Lab Sample ID: 480-125314-1 MS**

**Matrix: Water**

**Analysis Batch: 380579**

**Client Sample ID: MW-261S-20171004**

**Prep Type: Total/NA**

**Prep Batch: 380344**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	36		10.0	46.5		mg/L		100	75 - 125

**Lab Sample ID: 480-125314-1 MSD**

**Matrix: Water**

**Analysis Batch: 380579**

**Client Sample ID: MW-261S-20171004**

**Prep Type: Total/NA**

**Prep Batch: 380344**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	36		10.0	45.9		mg/L		95	75 - 125	1	20

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 480-380652/4**

**Matrix: Water**

**Analysis Batch: 380652**

**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			10/09/17 12:21	1
Sulfate	ND		2.0		mg/L			10/09/17 12:21	1

**Lab Sample ID: LCS 480-380652/3**

**Matrix: Water**

**Analysis Batch: 380652**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.8		mg/L		104	90 - 110
Sulfate	50.0	54.0		mg/L		108	90 - 110

**Lab Sample ID: 480-125314-4 MS**

**Matrix: Water**

**Analysis Batch: 380652**

**Client Sample ID: MW-268S-20171004**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17		50.0	67.2		mg/L		101	81 - 120
Sulfate	31		50.0	80.0		mg/L		97	80 - 120

**Lab Sample ID: 480-125314-4 MSD**

**Matrix: Water**

**Analysis Batch: 380652**

**Client Sample ID: MW-268S-20171004**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17		50.0	67.0		mg/L		100	81 - 120	0	20
Sulfate	31		50.0	80.5		mg/L		98	80 - 120	1	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 480-380499/2-A**  
**Matrix: Water**  
**Analysis Batch: 380558**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 380499**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/06/17 08:16	10/06/17 10:21	1

**Lab Sample ID: LCS 480-380499/1-A**  
**Matrix: Water**  
**Analysis Batch: 380558**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 380499**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia	1.00	0.942		mg/L		94	90 - 110

**Lab Sample ID: MB 480-381257/2-A**  
**Matrix: Water**  
**Analysis Batch: 381323**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 381257**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/11/17 11:00	10/11/17 12:49	1

**Lab Sample ID: LCS 480-381257/1-A**  
**Matrix: Water**  
**Analysis Batch: 381323**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 381257**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Ammonia	1.00	1.07		mg/L		107	90 - 110

**Lab Sample ID: 480-125314-3 MS**  
**Matrix: Water**  
**Analysis Batch: 381323**

**Client Sample ID: MW-267S-20171004**  
**Prep Type: Total/NA**  
**Prep Batch: 381257**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Ammonia	0.25	F1	0.500	0.839	F1	mg/L		118	90 - 110

**Lab Sample ID: 480-125314-1 DU**  
**Matrix: Water**  
**Analysis Batch: 381323**

**Client Sample ID: MW-261S-20171004**  
**Prep Type: Total/NA**  
**Prep Batch: 381257**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Ammonia	0.27		0.242		mg/L		10	20

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

**Lab Sample ID: MB 480-380726/4**  
**Matrix: Water**  
**Analysis Batch: 380726**

**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			10/05/17 19:31	1
TOC Result 2	ND		1.0		mg/L			10/05/17 19:31	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/05/17 19:31	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

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

**Lab Sample ID: LCS 480-380726/5**  
**Matrix: Water**  
**Analysis Batch: 380726**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.7		mg/L		96	90 - 110
TOC Result 2	60.0	58.3		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	58.0		mg/L		97	90 - 110

**Lab Sample ID: MB 480-380802/28**  
**Matrix: Water**  
**Analysis Batch: 380802**

**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			10/08/17 23:54	1
TOC Result 2	ND		1.0		mg/L			10/08/17 23:54	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/08/17 23:54	1

**Lab Sample ID: MB 480-380802/4**  
**Matrix: Water**  
**Analysis Batch: 380802**

**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			10/08/17 13:15	1
TOC Result 2	ND		1.0		mg/L			10/08/17 13:15	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/08/17 13:15	1

**Lab Sample ID: LCS 480-380802/29**  
**Matrix: Water**  
**Analysis Batch: 380802**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.7		mg/L		96	90 - 110
TOC Result 2	60.0	58.1		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	57.9		mg/L		97	90 - 110

**Lab Sample ID: LCS 480-380802/5**  
**Matrix: Water**  
**Analysis Batch: 380802**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.5		mg/L		96	90 - 110
TOC Result 2	60.0	57.7		mg/L		96	90 - 110
Total Organic Carbon - Duplicates	60.0	57.6		mg/L		96	90 - 110

# QC Sample Results

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

TestAmerica Job ID: 480-125314-1

## Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-380472/7  
Matrix: Water  
Analysis Batch: 380472

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			10/05/17 17:34	1

Lab Sample ID: LCS 480-380472/8  
Matrix: Water  
Analysis Batch: 380472

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	96.8		mg/L		97	90 - 110

## Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-380352/3  
Matrix: Water  
Analysis Batch: 380352

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			10/05/17 08:14	1

Lab Sample ID: LCS 480-380352/4  
Matrix: Water  
Analysis Batch: 380352

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	0.206		mg/L		103	90 - 110

Lab Sample ID: 480-125314-4 MS  
Matrix: Water  
Analysis Batch: 380352

Client Sample ID: MW-268S-20171004  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.10		1.00	1.13		mg/L		103	49 - 138

Lab Sample ID: 480-125314-4 MSD  
Matrix: Water  
Analysis Batch: 380352

Client Sample ID: MW-268S-20171004  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.10		1.00	1.13		mg/L		103	49 - 138	0	20

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-125314-1

## GC/MS VOA

### Analysis Batch: 381639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	8260C	
480-125314-2	MW-265M-20171004	Total/NA	Water	8260C	
480-125314-3	MW-267S-20171004	Total/NA	Water	8260C	
480-125314-4	MW-268S-20171004	Total/NA	Water	8260C	
480-125314-5	MW-268M-20171004	Total/NA	Water	8260C	
480-125314-6	MW-552-20171004	Total/NA	Water	8260C	
480-125314-7	DUP2-20171004	Total/NA	Water	8260C	
MB 480-381639/7	Method Blank	Total/NA	Water	8260C	
LCS 480-381639/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-381639/9	Lab Control Sample Dup	Total/NA	Water	8260C	

## GC/MS Semi VOA

### Prep Batch: 121936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	3535A	
480-125314-2	MW-265M-20171004	Total/NA	Water	3535A	
480-125314-3	MW-267S-20171004	Total/NA	Water	3535A	
480-125314-4	MW-268S-20171004	Total/NA	Water	3535A	
480-125314-5	MW-268M-20171004	Total/NA	Water	3535A	
480-125314-6	MW-552-20171004	Total/NA	Water	3535A	
480-125314-7	DUP2-20171004	Total/NA	Water	3535A	
MB 200-121936/1-A	Method Blank	Total/NA	Water	3535A	
LCS 200-121936/2-A	Lab Control Sample	Total/NA	Water	3535A	
LCSD 200-121936/3-A	Lab Control Sample Dup	Total/NA	Water	3535A	

### Analysis Batch: 121975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	522	121936
480-125314-2	MW-265M-20171004	Total/NA	Water	522	121936
480-125314-3	MW-267S-20171004	Total/NA	Water	522	121936
480-125314-6	MW-552-20171004	Total/NA	Water	522	121936
480-125314-7	DUP2-20171004	Total/NA	Water	522	121936
MB 200-121936/1-A	Method Blank	Total/NA	Water	522	121936
LCS 200-121936/2-A	Lab Control Sample	Total/NA	Water	522	121936
LCSD 200-121936/3-A	Lab Control Sample Dup	Total/NA	Water	522	121936

### Analysis Batch: 122000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-4	MW-268S-20171004	Total/NA	Water	522	121936
480-125314-5	MW-268M-20171004	Total/NA	Water	522	121936

## Metals

### Prep Batch: 380344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	3005A	
480-125314-2	MW-265M-20171004	Total/NA	Water	3005A	
480-125314-3	MW-267S-20171004	Total/NA	Water	3005A	
480-125314-4	MW-268S-20171004	Total/NA	Water	3005A	

TestAmerica Buffalo



# QC Association Summary

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

TestAmerica Job ID: 480-125314-1

## Metals (Continued)

### Prep Batch: 380344 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-5	MW-268M-20171004	Total/NA	Water	3005A	
480-125314-6	MW-552-20171004	Total/NA	Water	3005A	
MB 480-380344/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-380344/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCS 480-380344/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-125314-1 MS	MW-261S-20171004	Total/NA	Water	3005A	
480-125314-1 MSD	MW-261S-20171004	Total/NA	Water	3005A	

### Analysis Batch: 380579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	6010	380344
480-125314-2	MW-265M-20171004	Total/NA	Water	6010	380344
480-125314-3	MW-267S-20171004	Total/NA	Water	6010	380344
480-125314-5	MW-268M-20171004	Total/NA	Water	6010	380344
480-125314-6	MW-552-20171004	Total/NA	Water	6010	380344
MB 480-380344/1-A	Method Blank	Total/NA	Water	6010	380344
LCS 480-380344/2-A	Lab Control Sample	Total/NA	Water	6010	380344
LCS 480-380344/3-A	Lab Control Sample Dup	Total/NA	Water	6010	380344
480-125314-1 MS	MW-261S-20171004	Total/NA	Water	6010	380344
480-125314-1 MSD	MW-261S-20171004	Total/NA	Water	6010	380344

### Analysis Batch: 380689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-4	MW-268S-20171004	Total/NA	Water	6010	380344

## General Chemistry

### Analysis Batch: 380352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	SM 4500 P E	
480-125314-2	MW-265M-20171004	Total/NA	Water	SM 4500 P E	
480-125314-3	MW-267S-20171004	Total/NA	Water	SM 4500 P E	
480-125314-4	MW-268S-20171004	Total/NA	Water	SM 4500 P E	
480-125314-5	MW-268M-20171004	Total/NA	Water	SM 4500 P E	
480-125314-6	MW-552-20171004	Total/NA	Water	SM 4500 P E	
MB 480-380352/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-380352/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-125314-4 MS	MW-268S-20171004	Total/NA	Water	SM 4500 P E	
480-125314-4 MSD	MW-268S-20171004	Total/NA	Water	SM 4500 P E	

### Analysis Batch: 380465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	9040C	
480-125314-2	MW-265M-20171004	Total/NA	Water	9040C	
480-125314-3	MW-267S-20171004	Total/NA	Water	9040C	
480-125314-4	MW-268S-20171004	Total/NA	Water	9040C	
480-125314-5	MW-268M-20171004	Total/NA	Water	9040C	
480-125314-6	MW-552-20171004	Total/NA	Water	9040C	
LCS 480-380465/1	Lab Control Sample	Total/NA	Water	9040C	

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-125314-1

## General Chemistry (Continued)

### Analysis Batch: 380472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	SM 2320B	
480-125314-2	MW-265M-20171004	Total/NA	Water	SM 2320B	
480-125314-3	MW-267S-20171004	Total/NA	Water	SM 2320B	
480-125314-4	MW-268S-20171004	Total/NA	Water	SM 2320B	
480-125314-5	MW-268M-20171004	Total/NA	Water	SM 2320B	
480-125314-6	MW-552-20171004	Total/NA	Water	SM 2320B	
MB 480-380472/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-380472/8	Lab Control Sample	Total/NA	Water	SM 2320B	

### Analysis Batch: 380478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	353.2	
480-125314-2	MW-265M-20171004	Total/NA	Water	353.2	
480-125314-3	MW-267S-20171004	Total/NA	Water	353.2	
480-125314-4	MW-268S-20171004	Total/NA	Water	353.2	
480-125314-5	MW-268M-20171004	Total/NA	Water	353.2	
480-125314-6	MW-552-20171004	Total/NA	Water	353.2	

### Prep Batch: 380499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-2	MW-265M-20171004	Total/NA	Water	Distill/Ammonia	
480-125314-4	MW-268S-20171004	Total/NA	Water	Distill/Ammonia	
480-125314-5	MW-268M-20171004	Total/NA	Water	Distill/Ammonia	
480-125314-6	MW-552-20171004	Total/NA	Water	Distill/Ammonia	
MB 480-380499/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-380499/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

### Analysis Batch: 380558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-2	MW-265M-20171004	Total/NA	Water	350.1	380499
480-125314-4	MW-268S-20171004	Total/NA	Water	350.1	380499
480-125314-5	MW-268M-20171004	Total/NA	Water	350.1	380499
480-125314-6	MW-552-20171004	Total/NA	Water	350.1	380499
MB 480-380499/2-A	Method Blank	Total/NA	Water	350.1	380499
LCS 480-380499/1-A	Lab Control Sample	Total/NA	Water	350.1	380499

### Analysis Batch: 380652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	300.0	
480-125314-2	MW-265M-20171004	Total/NA	Water	300.0	
480-125314-3	MW-267S-20171004	Total/NA	Water	300.0	
480-125314-4	MW-268S-20171004	Total/NA	Water	300.0	
480-125314-5	MW-268M-20171004	Total/NA	Water	300.0	
480-125314-6	MW-552-20171004	Total/NA	Water	300.0	
MB 480-380652/4	Method Blank	Total/NA	Water	300.0	
LCS 480-380652/3	Lab Control Sample	Total/NA	Water	300.0	
480-125314-4 MS	MW-268S-20171004	Total/NA	Water	300.0	
480-125314-4 MSD	MW-268S-20171004	Total/NA	Water	300.0	

# QC Association Summary

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

TestAmerica Job ID: 480-125314-1

## General Chemistry (Continued)

### Analysis Batch: 380726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	9060A	
480-125314-4	MW-268S-20171004	Total/NA	Water	9060A	
480-125314-5	MW-268M-20171004	Total/NA	Water	9060A	
480-125314-6	MW-552-20171004	Total/NA	Water	9060A	
MB 480-380726/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380726/5	Lab Control Sample	Total/NA	Water	9060A	

### Analysis Batch: 380802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-2	MW-265M-20171004	Total/NA	Water	9060A	
480-125314-3	MW-267S-20171004	Total/NA	Water	9060A	
MB 480-380802/28	Method Blank	Total/NA	Water	9060A	
MB 480-380802/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380802/29	Lab Control Sample	Total/NA	Water	9060A	
LCS 480-380802/5	Lab Control Sample	Total/NA	Water	9060A	

### Prep Batch: 381257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	Distill/Ammonia	
480-125314-3	MW-267S-20171004	Total/NA	Water	Distill/Ammonia	
MB 480-381257/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-381257/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	
480-125314-3 MS	MW-267S-20171004	Total/NA	Water	Distill/Ammonia	
480-125314-1 DU	MW-261S-20171004	Total/NA	Water	Distill/Ammonia	

### Analysis Batch: 381323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125314-1	MW-261S-20171004	Total/NA	Water	350.1	381257
480-125314-3	MW-267S-20171004	Total/NA	Water	350.1	381257
MB 480-381257/2-A	Method Blank	Total/NA	Water	350.1	381257
LCS 480-381257/1-A	Lab Control Sample	Total/NA	Water	350.1	381257
480-125314-3 MS	MW-267S-20171004	Total/NA	Water	350.1	381257
480-125314-1 DU	MW-261S-20171004	Total/NA	Water	350.1	381257

# Lab Chronicle

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-261S-20171004**

**Lab Sample ID: 480-125314-1**

**Date Collected: 10/04/17 08:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381639	10/13/17 16:33	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 17:10	K1P	TAL BUR
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380579	10/05/17 17:00	LMH	TAL BUF
Total/NA	Analysis	300.0		2	380652	10/09/17 12:46	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			381257	10/11/17 11:00	KRT	TAL BUF
Total/NA	Analysis	350.1		1	381323	10/11/17 12:54	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 17:03	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:38	DSC	TAL BUF
Total/NA	Analysis	9060A		1	380726	10/06/17 00:49	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 17:47	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: MW-265M-20171004**

**Lab Sample ID: 480-125314-2**

**Date Collected: 10/04/17 10:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	381639	10/13/17 16:56	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 17:23	K1P	TAL BUR
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380579	10/05/17 17:17	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380652	10/09/17 12:54	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380499	10/06/17 08:16	SSS	TAL BUF
Total/NA	Analysis	350.1		2	380558	10/06/17 11:03	KRT	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 20:49	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:41	DSC	TAL BUF
Total/NA	Analysis	9060A		10	380802	10/08/17 18:35	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 17:55	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

**Date Collected: 10/04/17 11:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	381639	10/13/17 17:20	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 17:37	K1P	TAL BUR

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-267S-20171004**

**Lab Sample ID: 480-125314-3**

**Date Collected: 10/04/17 11:05**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380579	10/05/17 17:21	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380652	10/09/17 13:02	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			381257	10/11/17 11:00	KRT	TAL BUF
Total/NA	Analysis	350.1		1	381323	10/11/17 12:55	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 17:08	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:44	DSC	TAL BUF
Total/NA	Analysis	9060A		20	380802	10/08/17 19:02	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 18:02	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: MW-268S-20171004**

**Lab Sample ID: 480-125314-4**

**Date Collected: 10/04/17 11:45**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	381639	10/13/17 17:44	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	122000	10/11/17 14:44	K1P	TAL BUR
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380689	10/06/17 12:27	LMH	TAL BUF
Total/NA	Analysis	300.0		1	380652	10/09/17 13:10	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380499	10/06/17 08:16	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380558	10/06/17 11:00	KRT	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 17:09	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:47	DSC	TAL BUF
Total/NA	Analysis	9060A		1	380726	10/06/17 02:10	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 18:09	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: MW-268M-20171004**

**Lab Sample ID: 480-125314-5**

**Date Collected: 10/04/17 12:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	381639	10/13/17 18:08	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	122000	10/11/17 14:58	K1P	TAL BUR
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380579	10/05/17 17:38	LMH	TAL BUF
Total/NA	Analysis	300.0		2	380652	10/09/17 13:51	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380499	10/06/17 08:16	SSS	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-125314-1

**Client Sample ID: MW-268M-20171004**

**Lab Sample ID: 480-125314-5**

**Date Collected: 10/04/17 12:35**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	380558	10/06/17 10:36	KRT	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 17:10	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:49	DSC	TAL BUF
Total/NA	Analysis	9060A		1	380726	10/06/17 02:36	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 18:15	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: MW-552-20171004**

**Lab Sample ID: 480-125314-6**

**Date Collected: 10/04/17 09:25**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	381639	10/13/17 18:31	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 18:17	K1P	TAL BUR
Total/NA	Prep	3005A			380344	10/05/17 09:20	EMB	TAL BUF
Total/NA	Analysis	6010		1	380579	10/05/17 17:42	LMH	TAL BUF
Total/NA	Analysis	300.0		2	380652	10/09/17 13:59	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380499	10/06/17 08:16	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380558	10/06/17 10:37	KRT	TAL BUF
Total/NA	Analysis	353.2		1	380478	10/05/17 17:11	DCB	TAL BUF
Total/NA	Analysis	9040C		1	380465	10/05/17 17:52	DSC	TAL BUF
Total/NA	Analysis	9060A		1	380726	10/06/17 03:03	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380472	10/05/17 18:21	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380352	10/05/17 08:14	EKB	TAL BUF

**Client Sample ID: DUP2-20171004**

**Lab Sample ID: 480-125314-7**

**Date Collected: 10/04/17 00:00**

**Matrix: Water**

**Date Received: 10/05/17 01:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	381639	10/13/17 18:55	KMN	TAL BUF
Total/NA	Prep	3535A			121936	10/09/17 21:57	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 18:44	K1P	TAL BUR

**Laboratory References:**

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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

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

TestAmerica Job ID: 480-125314-1

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-18
California	State Program	9	2931	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	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18
Kentucky (DW)	State Program	4	90029	12-31-17
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	2973	09-11-18
New Jersey	NELAP	2	NY455	06-30-18
New York	NELAP	2	10026	03-31-18
North Dakota	State Program	8	R-176	03-31-18
Oklahoma	State Program	6	9421	08-31-18
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-18
Rhode Island	State Program	1	LAO00328	12-30-17
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-18
USDA	Federal		P330-11-00386	11-26-17 *
Virginia	NELAP	3	460185	09-14-18
Washington	State Program	10	C784	02-10-18
Wisconsin	State Program	5	998310390	08-31-18

## Laboratory: TestAmerica Burlington

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
Connecticut	State Program	1	PH-0751	09-30-17 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-18
Florida	NELAP	4	E87467	06-30-18
L-A-B	DoD ELAP		L2336	02-25-20
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-17
New Hampshire	NELAP	1	2006	12-18-17
New Jersey	NELAP	2	VT972	06-30-18
New York	NELAP	2	10391	04-01-18
Pennsylvania	NELAP	3	68-00489	04-30-18
Rhode Island	State Program	1	LAO00298	12-30-17
US Fish & Wildlife	Federal		LE-058448-0	10-31-17
USDA	Federal		P330-11-00093	12-05-19

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



# Accreditation/Certification Summary

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

TestAmerica Job ID: 480-125314-1

## Laboratory: TestAmerica Burlington (Continued)

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
Vermont	State Program	1	VT-4000	12-31-17
Virginia	NELAP	3	460209	12-14-17

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# Method Summary

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

TestAmerica Job ID: 480-125314-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

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

TestAmerica Job ID: 480-125314-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125314-1	MW-261S-20171004	Water	10/04/17 08:35	10/05/17 01:20
480-125314-2	MW-265M-20171004	Water	10/04/17 10:05	10/05/17 01:20
480-125314-3	MW-267S-20171004	Water	10/04/17 11:05	10/05/17 01:20
480-125314-4	MW-268S-20171004	Water	10/04/17 11:45	10/05/17 01:20
480-125314-5	MW-268M-20171004	Water	10/04/17 12:35	10/05/17 01:20
480-125314-6	MW-552-20171004	Water	10/04/17 09:25	10/05/17 01:20
480-125314-7	DUP2-20171004	Water	10/04/17 00:00	10/05/17 01:20

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# Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125314-1

**Login Number: 125314**

**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	

## Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125314-1

**Login Number: 125314**

**List Number: 2**

**Creator: Lavigne, Scott M**

**List Source: TestAmerica Burlington**

**List Creation: 10/05/17 08:32 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are 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	4.6°C
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 containers received 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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**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

# Chain of Custody Record

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

**Client Information:**  
 Client Contact: Vicki Perrigo  
 Company: Innovative Engineering Solutions Inc  
 Address: 85 Spring St  
 City: W. Longmead  
 State and Zip: MA 01081  
 Client's Phone: 508-688-0033  
 Client's Contact Email: v.perrigo@innovative-engineering.com  
 Client's Project Name/Number: Reservoir Wastewat MA BR008  
 Sample Collection Site Name & Location: Wilmington MA

Sample Collector's Name (Please Print Neatly): Dana Souza  
 Sample Collector's Phone: 509-404-3196  
 Due Date Requested: 10/12/17  
 Turnaround Time (TAT) Requested (business days): 3 days  
 Quote # or Project #: RA-008  
 PO #: RA-008  
 PWS ID #:

COC No: 37389  
 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, subcontract labs, without any additional notification made by us, as necessary to fulfill your work order.

Sample Identification	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	Analysis Requested													Total Number of Containers (enter total for each line)	Special Instructions & Notes							
					A	B	C	D	E	F	H	J	M	N	P	Q	R			S	Z					
MW-2617 - 201710 04	10/4/17	0835	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	11	CW-3 requirements
MW-265M - 201710 04	10/4/17	1005	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-2675 - 201710 04	10/4/17	1105	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-2685 - 201710 04	10/4/17	1145	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-268M - 201710 04	10/4/17	1235	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-552 - 201710 04	10/4/17	0925	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Dup2 - 201710 04	-	-	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Temp Blanks	-	-	G	W	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

**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: \_\_\_\_\_

**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

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

Relinquished by: [Signature] Date/Time: 10/4/17 1330 Company: TEST  
 Relinquished by: [Signature] Date/Time: 10-5-17 0120 Company: TMS  
 Relinquished by: [Signature] Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_









ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 04OCT17  
ACTWTG: 21.85 LB  
CAD: 590687/CAFE3108

BILL RECEIPT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

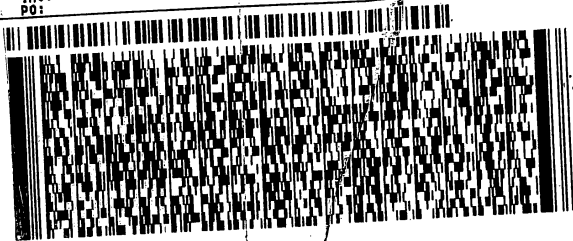
(802) 660-1990

REF:

DEPT:

INV:

PO:



**FedEx**  
Express



J77101610200101

TRK# 4258 8392 2653  
0201

THU - 05 OCT 3:00P  
STANDARD OVERNIGHT

**NC BTVA**

05403  
VT-US BTV



Page # 156148V 74 P. 02/17



ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 04OCT17  
ACTWGT: 21.85 LB  
CAD: 5906877/CAFE3108

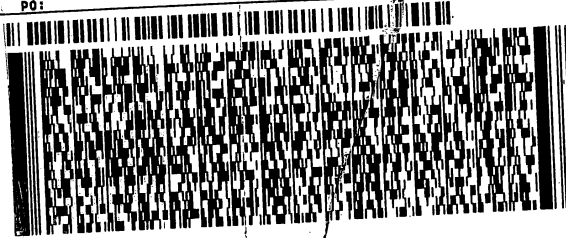
BILL RECIPIENT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
THU:  
PO:

REF:

DEPT:



**FedEx**  
Express



JT77016102001W

TRK# 4258 8392 2653  
0201

THU - 05 OCT 3:00P  
STANDARD OVERNIGHT

**NC BTVA**

05403  
VT-US BTV



Part # 156148V 1/10 P172 02/17

# 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: 480-125214-1

Client Project/Site: IDS Wayland

For:

Innovative Engineering Solutions, Inc

25 Spring Street

Walpole, Massachusetts 02081

Attn: Vicki Pariyar



Authorized for release by:

10/11/2017 3:16:03 PM

Denise Giglia, Project Management Assistant II

[denise.giglia@testamericainc.com](mailto:denise.giglia@testamericainc.com)

Designee for

Becky Mason, Project Manager II

(413)572-4000

[becky.mason@testamericainc.com](mailto:becky.mason@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://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: 480-125214-1

## Qualifiers

### GC/MS VOA

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

### Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

## 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: 480-125214-1

**Job ID: 480-125214-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-125214-1

#### Receipt

The samples were received on 10/4/2017 2:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 2.7° C.

#### Receipt Exceptions

Upon receipt, laboratory personnel were not able to determine if the submitted volume for Ortho-Phosphate analysis were field filtered within the method's time criteria for the following samples: DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4), MW-267M-20171002 (480-125214-5), MW-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14), DUP1-20171003 (480-125214-15) and TRIP BLANKS (480-125214-16). Samples were provided to the analytical department in an "as received" condition.

#### 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 laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-380799 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl 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 : DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4) and MW-267M-20171002 (480-125214-5).

Method 8260C: The continuing calibration verification (CCV) for Dichlorodifluoromethane and 1,3-Dichloropropane associated with batch 480-380799 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 : DEP-21-20171002 (480-125214-1), MW-264M-20171002 (480-125214-2), MW-266MA-20171002 (480-125214-3), MW-266MB-20171002 (480-125214-4) and MW-267M-20171002 (480-125214-5).

Method 8260C: The following volatile sample was analyzed with significant headspace in the sample Container: MW-264M-20171002 (480-125214-2). Significant headspace is defined as a bubble greater than 6 mm in diameter.

Method 8260C: The continuing calibration verification (CCV) for Carbon tetrachloride, 1,1,2,2-Tetrachloroethane, 1,3-Dichloropropane, and Ethyl ether associated with batch 480-380932 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-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14) and TRIP BLANKS (480-125214-16).

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 480-380932 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl 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-269MA-20171002 (480-125214-6), MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14) and TRIP BLANKS (480-125214-16).

Method 8260C: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs).



# Case Narrative

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

TestAmerica Job ID: 480-125214-1

## Job ID: 480-125214-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: REW-6-20171003 (480-125214-11) and REW-11-20171003 (480-125214-13). The samples were analyzed within 7 days per EPA recommendation.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-562-20171003 (480-125214-9) and REW-6-20171003 (480-125214-11). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: REW-12-20171003 (480-125214-14). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: DUP1-20171003 (480-125214-15). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for n-Butylbenzene, N-Propylbenzene, Acetone, 1,1,2,2-Tetrachloroethane, 1,3-Dichloropropane, Dichlorodifluoromethane and Isopropylbenzene associated with batch 480-381006 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 : DUP1-20171003 (480-125214-15).

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 480-381006 exceeded control limits for the following analyte: 2-Butanone. Unlike the calibration standards, this is due to the coelution with Ethyl Acetate in the spiking solution. This does not indicate a performance issue with the spike recovery, but rather the laboratory's ability to measure the two analytes together in a combined spiking solution. Through the use of spectral analysis, the two compounds can be distinguished from one another if present in a client sample. The following sample was affected : DUP1-20171003 (480-125214-15).

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

### GC/MS Semi VOA

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

### HPLC/IC

Method 300.0: The following samples was reported with elevated reporting limits for all analytes: REW-6-20171003 (480-125214-11), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14). The sample was analyzed at a dilution based on screening results.

Method 300.0: The following samples was reported with elevated reporting limits for all analytes: MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8) and MW-562-20171003 (480-125214-9). 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.

Method 6010, 6010C: The continuing calibration blank (CCB 480-380329/39) contained Total Iron above the reporting limit (RL). All reported samples MW-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13), REW-12-20171003 (480-125214-14), (LCSD 480-380098/3-A), (480-125214-B-9-B MS), (480-125214-B-9-C MSD), (480-125214-B-9-A PDS) and (480-125214-B-9-A SD) associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

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

### General Chemistry

Method 353.2: The following samples was filtered prior to analysis: MW-560-20171003 (480-125214-7), MW-561-20171003

# Case Narrative

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

TestAmerica Job ID: 480-125214-1

## Job ID: 480-125214-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

(480-125214-8), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12) and REW-11-20171003 (480-125214-13).

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-560-20171003 (480-125214-7), MW-561-20171003 (480-125214-8), MW-562-20171003 (480-125214-9), MW-563-20171003 (480-125214-10), REW-6-20171003 (480-125214-11), REW-7-20171003 (480-125214-12), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14).

Method SM 4500 P E: The following samples was diluted due to the nature of the sample matrix: MW-560-20171003 (480-125214-7) and MW-561-20171003 (480-125214-8). Elevated reporting limits (RLs) are provided.

Method Nitrate by calc: An abnormal inter-parameter relationship exists between Nitrate-Nitrite and Nitrite results. Reanalysis was performed and the results were confirmed for these samples: MW-562-20171003 (480-125214-9), REW-11-20171003 (480-125214-13) and REW-12-20171003 (480-125214-14).

Method 353.2: The following sample was filtered prior to analysis due to color turbidity and/or particulates: REW-12-20171003 (480-125214-14).

Method 353.2: Reanalysis of the following sample was performed outside of the analytical holding time due to nitrite value being greater than nitrate-nitrite total : REW-12-20171003 (480-125214-14).

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 for these samples: MW-562-20171003 (480-125214-9) and REW-12-20171003 (480-125214-14).

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 for these samples: MW-562-20171003 (480-125214-9) and REW-12-20171003 (480-125214-14).

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

### Organic Prep

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

## MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-125214**

Project Location: **IDS Wayland** RTN:

**This form provides certifications for the following data set: list Laboratory Sample ID Number(s):**  
**480-125214[1-16]**

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**

<b>A</b>	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>B</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
<b>C</b>	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
<b>D</b>	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
<b>E</b>	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
<b>F</b>	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**

<b>G</b>	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 <sup>1</sup>
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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**

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

<sup>1</sup> 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: 10/11/17 15:01

# Detection Summary

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

TestAmerica Job ID: 480-125214-1

## Client Sample ID: MW-266MA-20171002

## Lab Sample ID: 480-125214-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.4		2.0		ug/L	1		8260C	Total/NA
Toluene	2.6		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	1.5		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	0.64		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-266MB-20171002

## Lab Sample ID: 480-125214-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	3.8		1.0		ug/L	1		8260C	Total/NA

## Client Sample ID: MW-267M-20171002

## Lab Sample ID: 480-125214-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.2		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	3.0		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-269MA-20171002

## Lab Sample ID: 480-125214-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.6		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	3.6		1.0		ug/L	1		8260C	Total/NA
1,4-Dioxane	0.81		0.20		ug/L	1		522	Total/NA

## Client Sample ID: MW-560-20171003

## Lab Sample ID: 480-125214-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	11	^	0.050		mg/L	1		6010	Total/NA
Chloride	30	F1	1.0		mg/L	2		300.0	Total/NA
Sulfate	4.8	F1	4.0		mg/L	2		300.0	Total/NA
Ammonia	1.4		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	2.2		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	2.1		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	2.2		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	400		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.2	HF	0.1		SU	1		9040C	Total/NA

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: 480-125214-1

## Client Sample ID: MW-560-20171003 (Continued)

## Lab Sample ID: 480-125214-7

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Temperature	21.9	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-561-20171003

## Lab Sample ID: 480-125214-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	36	*	10		ug/L	1		8260C	Total/NA
Acetone	340		50		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.0		1.0		ug/L	1		8260C	Total/NA
Ethylbenzene	6.5		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	24		2.0		ug/L	1		8260C	Total/NA
o-Xylene	8.4		1.0		ug/L	1		8260C	Total/NA
Toluene	9.2		1.0		ug/L	1		8260C	Total/NA
Iron	120	^	0.050		mg/L	1		6010	Total/NA
Chloride	36		2.5		mg/L	5		300.0	Total/NA
Ammonia	1.3		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	62		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	60		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	61		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	1100		5.0		mg/L	1		SM 2320B	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.0	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-562-20171003

## Lab Sample ID: 480-125214-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5500		2000		ug/L	40		8260C	Total/NA
Iron	260	^	0.050		mg/L	1		6010	Total/NA
Chloride	14		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.49		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	630		10		mg/L	10		9060A	Total/NA
TOC Result 2	630		10		mg/L	10		9060A	Total/NA
Total Organic Carbon - Duplicates	630		10		mg/L	10		9060A	Total/NA
Alkalinity, Total	530		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.28		0.10		mg/L	5		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.1	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.0	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: MW-563-20171003

## Lab Sample ID: 480-125214-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	1.5		1.0		ug/L	1		8260C	Total/NA
Iron	28	^	0.050		mg/L	1		6010	Total/NA
Chloride	25		0.50		mg/L	1		300.0	Total/NA
Ammonia	1.1		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	2.0		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	1.5		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	1.8		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	180		5.0		mg/L	1		SM 2320B	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: 480-125214-1

## Client Sample ID: MW-563-20171003 (Continued)

## Lab Sample ID: 480-125214-10

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.1	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.0	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: REW-6-20171003

## Lab Sample ID: 480-125214-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	320	*	20		ug/L	2		8260C	Total/NA
Naphthalene	12		10		ug/L	2		8260C	Total/NA
Toluene	20		2.0		ug/L	2		8260C	Total/NA
Iron	69	^	0.050		mg/L	1		6010	Total/NA
Chloride	47		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.40		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	3200		80		mg/L	80		9060A	Total/NA
TOC Result 2	3300		80		mg/L	80		9060A	Total/NA
Total Organic Carbon - Duplicates	3200		80		mg/L	80		9060A	Total/NA
Alkalinity, Total	800		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.48		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.0	HF	0.1		SU	1		9040C	Total/NA
Temperature	21.9	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: REW-7-20171003

## Lab Sample ID: 480-125214-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	5.1	^	0.050		mg/L	1		6010	Total/NA
Chloride	10		0.50		mg/L	1		300.0	Total/NA
Ammonia	3.0		0.40		mg/L	2		350.1	Total/NA
TOC Result 1	2.1		1.0		mg/L	1		9060A	Total/NA
TOC Result 2	1.7		1.0		mg/L	1		9060A	Total/NA
Total Organic Carbon - Duplicates	1.9		1.0		mg/L	1		9060A	Total/NA
Alkalinity, Total	120		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.082		0.020		mg/L	1		SM 4500 P E	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.3	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.0	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: REW-11-20171003

## Lab Sample ID: 480-125214-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	190	*	10		ug/L	1		8260C	Total/NA
Toluene	17		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	2.8		1.0		ug/L	1		8260C	Total/NA
Iron	97	^	0.050		mg/L	1		6010	Total/NA
Chloride	67		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.85		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	1800		40		mg/L	40		9060A	Total/NA
TOC Result 2	1900		40		mg/L	40		9060A	Total/NA
Total Organic Carbon - Duplicates	1800		40		mg/L	40		9060A	Total/NA
Alkalinity, Total	730		5.0		mg/L	1		SM 2320B	Total/NA
ortho-Phosphate	0.098		0.020		mg/L	1		SM 4500 P E	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: 480-125214-1

## Client Sample ID: REW-11-20171003 (Continued)

## Lab Sample ID: 480-125214-13

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.4	HF	0.1		SU	1		9040C	Total/NA
Temperature	22.0	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: REW-12-20171003

## Lab Sample ID: 480-125214-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	45		40		ug/L	40		8260C	Total/NA
Iron	210	^	0.050		mg/L	1		6010	Total/NA
Chloride	45		2.5		mg/L	5		300.0	Total/NA
Ammonia	0.97		0.20		mg/L	1		350.1	Total/NA
TOC Result 1	800		10		mg/L	10		9060A	Total/NA
TOC Result 2	800		10		mg/L	10		9060A	Total/NA
Total Organic Carbon - Duplicates	800		10		mg/L	10		9060A	Total/NA
Alkalinity, Total	430		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	5.3	HF	0.1		SU	1		9040C	Total/NA
Temperature	21.9	HF	0.001		Degrees C	1		9040C	Total/NA

## Client Sample ID: DUP1-20171003

## Lab Sample ID: 480-125214-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	42	*	20		ug/L	2		8260C	Total/NA
Acetone	430		100		ug/L	2		8260C	Total/NA
Ethylbenzene	6.4		2.0		ug/L	2		8260C	Total/NA
m-Xylene & p-Xylene	25		4.0		ug/L	2		8260C	Total/NA
o-Xylene	8.8		2.0		ug/L	2		8260C	Total/NA
Toluene	11		2.0		ug/L	2		8260C	Total/NA

## Client Sample ID: TRIP BLANKS

## Lab Sample ID: 480-125214-16

No Detections.

This Detection Summary does not include radiochemical test results.

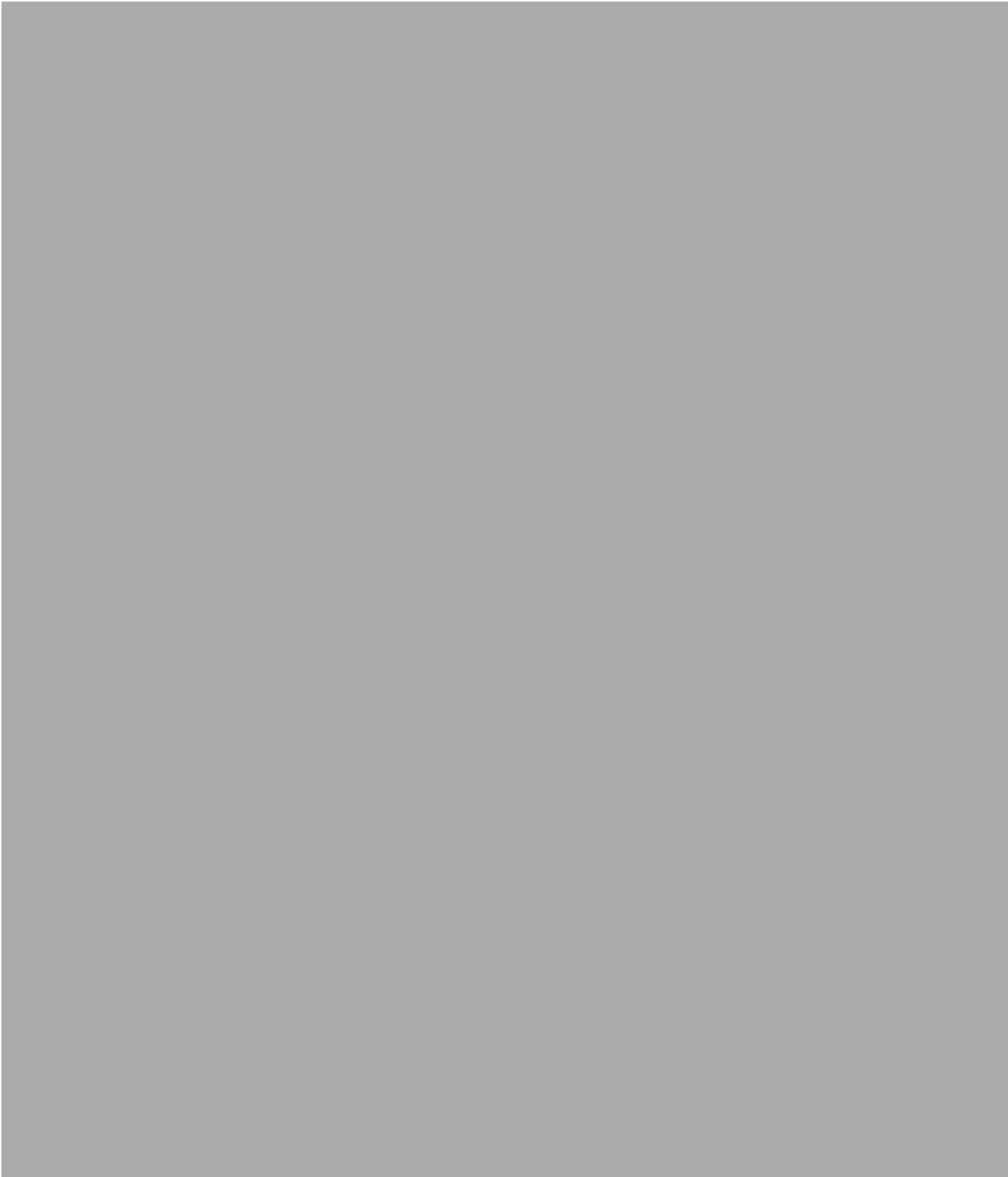
TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

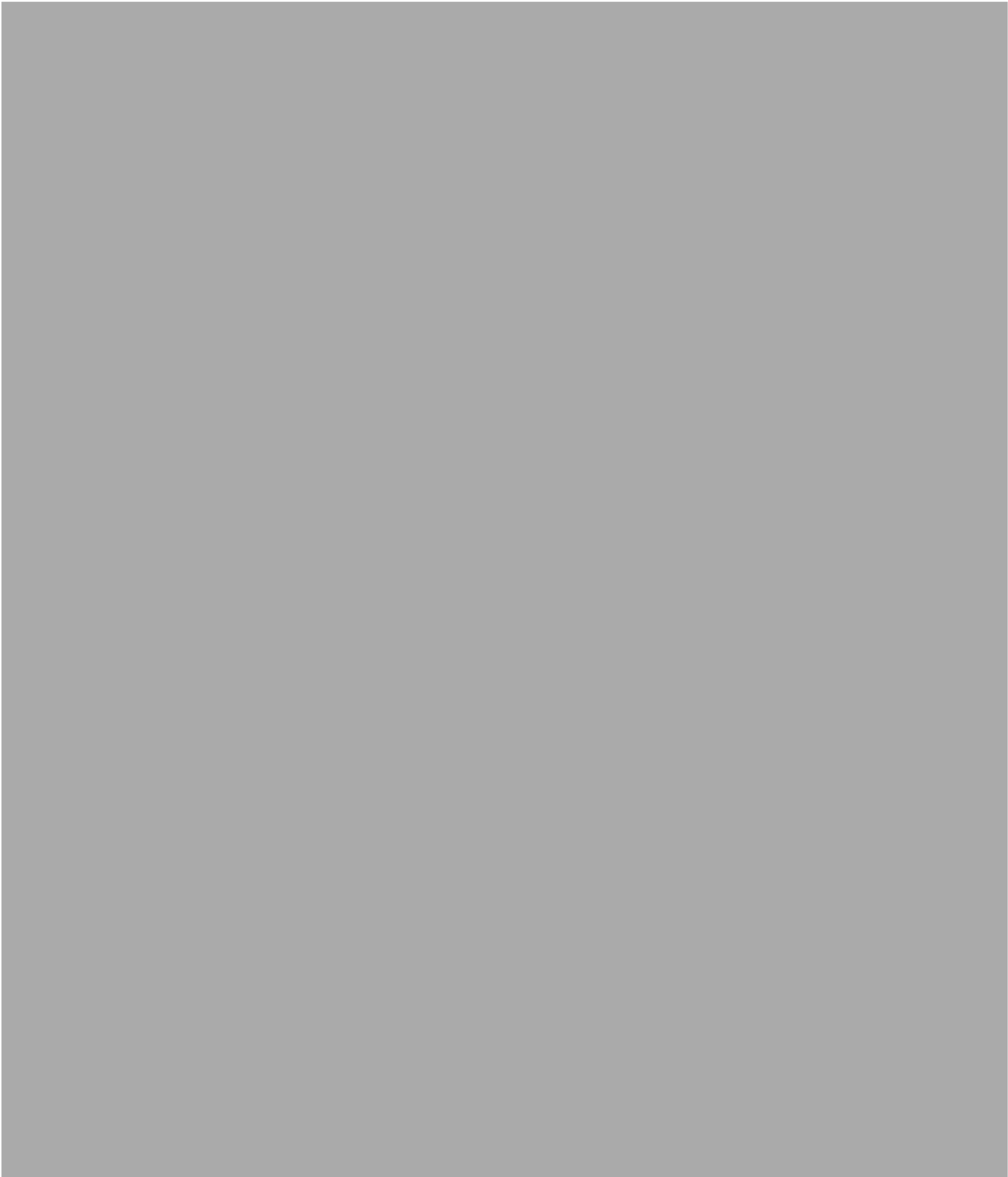


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# Client Sample Results

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

TestAmerica Job ID: 480-125214-1



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# Client Sample Results

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

TestAmerica Job ID: 480-125214-1



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TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

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**Client Sample ID: MW-266MA-20171002**

**Lab Sample ID: 480-125214-3**

**Date Collected: 10/02/17 10:05**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

**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			10/09/17 16:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 16:44	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 16:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 16:44	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 16:44	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 16:44	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 16:44	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 16:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 16:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 16:44	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 16:44	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 16:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
1,4-Dioxane	ND		50		ug/L			10/09/17 16:44	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 16:44	1
2-Butanone (MEK)	ND	*	10		ug/L			10/09/17 16:44	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 16:44	1
2-Hexanone	ND		10		ug/L			10/09/17 16:44	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 16:44	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 16:44	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 16:44	1
Acetone	ND		50		ug/L			10/09/17 16:44	1
Benzene	ND		1.0		ug/L			10/09/17 16:44	1
Bromobenzene	ND		1.0		ug/L			10/09/17 16:44	1
Bromoform	ND		1.0		ug/L			10/09/17 16:44	1
Bromomethane	ND		2.0		ug/L			10/09/17 16:44	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-266MA-20171002**

**Lab Sample ID: 480-125214-3**

**Date Collected: 10/02/17 10:05**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		10		ug/L			10/09/17 16:44	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 16:44	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 16:44	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 16:44	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 16:44	1
Chloroethane	ND		2.0		ug/L			10/09/17 16:44	1
Chloroform	ND		1.0		ug/L			10/09/17 16:44	1
Chloromethane	ND		2.0		ug/L			10/09/17 16:44	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 16:44	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 16:44	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 16:44	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 16:44	1
Ethyl ether	ND		1.0		ug/L			10/09/17 16:44	1
<b>Ethylbenzene</b>	<b>1.1</b>		1.0		ug/L			10/09/17 16:44	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 16:44	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 16:44	1
Isopropyl ether	ND		10		ug/L			10/09/17 16:44	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 16:44	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 16:44	1
<b>m-Xylene &amp; p-Xylene</b>	<b>3.4</b>		2.0		ug/L			10/09/17 16:44	1
Naphthalene	ND		5.0		ug/L			10/09/17 16:44	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
o-Xylene	ND		1.0		ug/L			10/09/17 16:44	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
Styrene	ND		1.0		ug/L			10/09/17 16:44	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 16:44	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 16:44	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 16:44	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 16:44	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 16:44	1
<b>Toluene</b>	<b>2.6</b>		1.0		ug/L			10/09/17 16:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 16:44	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 16:44	1
Trichloroethene	ND		1.0		ug/L			10/09/17 16:44	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 16:44	1
<b>Vinyl chloride</b>	<b>1.5</b>		1.0		ug/L			10/09/17 16:44	1
Dibromomethane	ND		1.0		ug/L			10/09/17 16:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		10/09/17 16:44	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/09/17 16:44	1
4-Bromofluorobenzene (Surr)	89		70 - 130		10/09/17 16:44	1

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>0.64</b>		0.20		ug/L		10/09/17 19:17	10/10/17 23:52	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-266MA-20171002**

**Lab Sample ID: 480-125214-3**

**Date Collected: 10/02/17 10:05**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	66		46 - 130	10/09/17 19:17	10/10/17 23:52	1

**Client Sample ID: MW-266MB-20171002**

**Lab Sample ID: 480-125214-4**

**Date Collected: 10/02/17 10:40**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

**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			10/09/17 17:08	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 17:08	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 17:08	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 17:08	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 17:08	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 17:08	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 17:08	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 17:08	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 17:08	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 17:08	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 17:08	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 17:08	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
1,4-Dioxane	ND		50		ug/L			10/09/17 17:08	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 17:08	1
2-Butanone (MEK)	ND	*	10		ug/L			10/09/17 17:08	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 17:08	1
2-Hexanone	ND		10		ug/L			10/09/17 17:08	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 17:08	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 17:08	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 17:08	1
Acetone	ND		50		ug/L			10/09/17 17:08	1
Benzene	ND		1.0		ug/L			10/09/17 17:08	1
Bromobenzene	ND		1.0		ug/L			10/09/17 17:08	1
Bromoform	ND		1.0		ug/L			10/09/17 17:08	1
Bromomethane	ND		2.0		ug/L			10/09/17 17:08	1
Carbon disulfide	ND		10		ug/L			10/09/17 17:08	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 17:08	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 17:08	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 17:08	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 17:08	1
Chloroethane	ND		2.0		ug/L			10/09/17 17:08	1
Chloroform	ND		1.0		ug/L			10/09/17 17:08	1
Chloromethane	ND		2.0		ug/L			10/09/17 17:08	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 17:08	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 17:08	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-266MB-20171002**

**Lab Sample ID: 480-125214-4**

**Date Collected: 10/02/17 10:40**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 17:08	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 17:08	1
Ethyl ether	ND		1.0		ug/L			10/09/17 17:08	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 17:08	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 17:08	1
Isopropyl ether	ND		10		ug/L			10/09/17 17:08	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 17:08	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 17:08	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 17:08	1
Naphthalene	ND		5.0		ug/L			10/09/17 17:08	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
o-Xylene	ND		1.0		ug/L			10/09/17 17:08	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
Styrene	ND		1.0		ug/L			10/09/17 17:08	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 17:08	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 17:08	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 17:08	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 17:08	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 17:08	1
Toluene	ND		1.0		ug/L			10/09/17 17:08	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 17:08	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 17:08	1
Trichloroethene	ND		1.0		ug/L			10/09/17 17:08	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 17:08	1
<b>Vinyl chloride</b>	<b>3.8</b>		1.0		ug/L			10/09/17 17:08	1
Dibromomethane	ND		1.0		ug/L			10/09/17 17:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	101		70 - 130		10/09/17 17:08	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	96		70 - 130		10/09/17 17:08	1
<i>4-Bromofluorobenzene (Surr)</i>	86		70 - 130		10/09/17 17:08	1

**Client Sample ID: MW-267M-20171002**

**Lab Sample ID: 480-125214-5**

**Date Collected: 10/02/17 09:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

**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			10/09/17 20:16	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 20:16	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 20:16	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 20:16	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 20:16	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 20:16	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 20:16	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 20:16	1

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# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-267M-20171002**

**Lab Sample ID: 480-125214-5**

**Date Collected: 10/02/17 09:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 20:16	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 20:16	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 20:16	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 20:16	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
1,4-Dioxane	ND		50		ug/L			10/09/17 20:16	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 20:16	1
2-Butanone (MEK)	ND	*	10		ug/L			10/09/17 20:16	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 20:16	1
2-Hexanone	ND		10		ug/L			10/09/17 20:16	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 20:16	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 20:16	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 20:16	1
Acetone	ND		50		ug/L			10/09/17 20:16	1
Benzene	ND		1.0		ug/L			10/09/17 20:16	1
Bromobenzene	ND		1.0		ug/L			10/09/17 20:16	1
Bromoform	ND		1.0		ug/L			10/09/17 20:16	1
Bromomethane	ND		2.0		ug/L			10/09/17 20:16	1
Carbon disulfide	ND		10		ug/L			10/09/17 20:16	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 20:16	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 20:16	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 20:16	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 20:16	1
Chloroethane	ND		2.0		ug/L			10/09/17 20:16	1
Chloroform	ND		1.0		ug/L			10/09/17 20:16	1
Chloromethane	ND		2.0		ug/L			10/09/17 20:16	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 20:16	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 20:16	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 20:16	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 20:16	1
Ethyl ether	ND		1.0		ug/L			10/09/17 20:16	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 20:16	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 20:16	1
Isopropyl ether	ND		10		ug/L			10/09/17 20:16	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 20:16	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 20:16	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 20:16	1
Naphthalene	ND		5.0		ug/L			10/09/17 20:16	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
o-Xylene	ND		1.0		ug/L			10/09/17 20:16	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 20:16	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-267M-20171002**

**Lab Sample ID: 480-125214-5**

Date Collected: 10/02/17 09:30

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0		ug/L			10/09/17 20:16	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 20:16	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 20:16	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 20:16	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 20:16	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 20:16	1
<b>Toluene</b>	<b>1.2</b>		1.0		ug/L			10/09/17 20:16	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 20:16	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 20:16	1
Trichloroethene	ND		1.0		ug/L			10/09/17 20:16	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 20:16	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 20:16	1
Dibromomethane	ND		1.0		ug/L			10/09/17 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/09/17 20:16	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		10/09/17 20:16	1
4-Bromofluorobenzene (Surr)	86		70 - 130		10/09/17 20:16	1

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>3.0</b>		0.20		ug/L		10/09/17 19:17	10/11/17 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	75		46 - 130	10/09/17 19:17	10/11/17 00:05	1

**Client Sample ID: MW-269MA-20171002**

**Lab Sample ID: 480-125214-6**

Date Collected: 10/02/17 12:30

Matrix: Water

Date Received: 10/04/17 02:15

**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			10/10/17 00:09	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 00:09	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 00:09	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 00:09	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 00:09	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 00:09	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 00:09	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 00:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 00:09	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 00:09	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:09	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 00:09	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-269MA-20171002**

**Lab Sample ID: 480-125214-6**

**Date Collected: 10/02/17 12:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
1,4-Dioxane	ND		50		ug/L			10/10/17 00:09	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:09	1
2-Butanone (MEK)	ND	*	10		ug/L			10/10/17 00:09	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:09	1
2-Hexanone	ND		10		ug/L			10/10/17 00:09	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:09	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 00:09	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 00:09	1
Acetone	ND		50		ug/L			10/10/17 00:09	1
Benzene	ND		1.0		ug/L			10/10/17 00:09	1
Bromobenzene	ND		1.0		ug/L			10/10/17 00:09	1
Bromoform	ND		1.0		ug/L			10/10/17 00:09	1
Bromomethane	ND		2.0		ug/L			10/10/17 00:09	1
Carbon disulfide	ND		10		ug/L			10/10/17 00:09	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 00:09	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 00:09	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 00:09	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 00:09	1
Chloroethane	ND		2.0		ug/L			10/10/17 00:09	1
Chloroform	ND		1.0		ug/L			10/10/17 00:09	1
Chloromethane	ND		2.0		ug/L			10/10/17 00:09	1
<b>cis-1,2-Dichloroethene</b>	<b>3.6</b>		1.0		ug/L			10/10/17 00:09	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:09	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 00:09	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 00:09	1
Ethyl ether	ND		1.0		ug/L			10/10/17 00:09	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 00:09	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 00:09	1
Isopropyl ether	ND		10		ug/L			10/10/17 00:09	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 00:09	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 00:09	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 00:09	1
Naphthalene	ND		5.0		ug/L			10/10/17 00:09	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
o-Xylene	ND		1.0		ug/L			10/10/17 00:09	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
Styrene	ND		1.0		ug/L			10/10/17 00:09	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 00:09	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 00:09	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 00:09	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 00:09	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 00:09	1
Toluene	ND		1.0		ug/L			10/10/17 00:09	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 00:09	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:09	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-269MA-20171002**

**Lab Sample ID: 480-125214-6**

**Date Collected: 10/02/17 12:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Trichloroethene</b>	<b>3.6</b>		1.0		ug/L			10/10/17 00:09	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 00:09	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 00:09	1
Dibromomethane	ND		1.0		ug/L			10/10/17 00:09	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>Toluene-d8 (Surr)</i>	100		70 - 130					10/10/17 00:09	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	98		70 - 130					10/10/17 00:09	1
<i>4-Bromofluorobenzene (Surr)</i>	87		70 - 130					10/10/17 00:09	1

**Method: 522 - 1,4 Dioxane (GC/MS SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,4-Dioxane</b>	<b>0.81</b>		0.20		ug/L		10/09/17 19:17	10/11/17 00:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>1,4-Dioxane-d8 (Surr)</i>	69		46 - 130				10/09/17 19:17	10/11/17 00:32	1

**Client Sample ID: MW-560-20171003**

**Lab Sample ID: 480-125214-7**

**Date Collected: 10/03/17 10:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

**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			10/10/17 00:32	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 00:32	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 00:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 00:32	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 00:32	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 00:32	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 00:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 00:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 00:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 00:32	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 00:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
1,4-Dioxane	ND		50		ug/L			10/10/17 00:32	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:32	1
2-Butanone (MEK)	ND *		10		ug/L			10/10/17 00:32	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:32	1
2-Hexanone	ND		10		ug/L			10/10/17 00:32	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:32	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 00:32	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 00:32	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-560-20171003**

**Lab Sample ID: 480-125214-7**

**Date Collected: 10/03/17 10:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50		ug/L			10/10/17 00:32	1
Benzene	ND		1.0		ug/L			10/10/17 00:32	1
Bromobenzene	ND		1.0		ug/L			10/10/17 00:32	1
Bromoform	ND		1.0		ug/L			10/10/17 00:32	1
Bromomethane	ND		2.0		ug/L			10/10/17 00:32	1
Carbon disulfide	ND		10		ug/L			10/10/17 00:32	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 00:32	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 00:32	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 00:32	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 00:32	1
Chloroethane	ND		2.0		ug/L			10/10/17 00:32	1
Chloroform	ND		1.0		ug/L			10/10/17 00:32	1
Chloromethane	ND		2.0		ug/L			10/10/17 00:32	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 00:32	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:32	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 00:32	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 00:32	1
Ethyl ether	ND		1.0		ug/L			10/10/17 00:32	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 00:32	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 00:32	1
Isopropyl ether	ND		10		ug/L			10/10/17 00:32	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 00:32	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 00:32	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 00:32	1
Naphthalene	ND		5.0		ug/L			10/10/17 00:32	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
o-Xylene	ND		1.0		ug/L			10/10/17 00:32	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
Styrene	ND		1.0		ug/L			10/10/17 00:32	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 00:32	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 00:32	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 00:32	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 00:32	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 00:32	1
Toluene	ND		1.0		ug/L			10/10/17 00:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 00:32	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:32	1
Trichloroethene	ND		1.0		ug/L			10/10/17 00:32	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 00:32	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 00:32	1
Dibromomethane	ND		1.0		ug/L			10/10/17 00:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		10/10/17 00:32	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		10/10/17 00:32	1
4-Bromofluorobenzene (Surr)	87		70 - 130		10/10/17 00:32	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-560-20171003**

**Lab Sample ID: 480-125214-7**

Date Collected: 10/03/17 10:15

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	11	^	0.050		mg/L		10/04/17 09:15	10/04/17 23:45	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30	F1	1.0		mg/L			10/06/17 15:46	2
Sulfate	4.8	F1	4.0		mg/L			10/06/17 15:46	2
Ammonia	1.4		0.20		mg/L		10/04/17 18:10	10/05/17 11:41	1
Nitrate as N	ND		0.050		mg/L			10/04/17 15:23	1
TOC Result 1	2.2		1.0		mg/L			10/04/17 20:43	1
TOC Result 2	2.1		1.0		mg/L			10/04/17 20:43	1
Total Organic Carbon - Duplicates	2.2		1.0		mg/L			10/04/17 20:43	1
Alkalinity, Total	400		5.0		mg/L			10/04/17 22:35	1
ortho-Phosphate	ND		0.10		mg/L			10/04/17 19:50	5
ortho-Phosphate	ND		0.020		mg/L			10/04/17 21:37	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.2	HF	0.1		SU			10/04/17 17:58	1
Temperature	21.9	HF	0.001		Degrees C			10/04/17 17:58	1

**Client Sample ID: MW-561-20171003**

**Lab Sample ID: 480-125214-8**

Date Collected: 10/03/17 09:15

Matrix: Water

Date Received: 10/04/17 02:15

**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			10/10/17 00:56	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 00:56	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 00:56	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 00:56	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 00:56	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 00:56	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 00:56	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 00:56	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 00:56	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 00:56	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:56	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 00:56	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
1,4-Dioxane	ND		50		ug/L			10/10/17 00:56	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 00:56	1
2-Butanone (MEK)	36	*	10		ug/L			10/10/17 00:56	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:56	1
2-Hexanone	ND		10		ug/L			10/10/17 00:56	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 00:56	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 00:56	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-561-20171003**

**Lab Sample ID: 480-125214-8**

**Date Collected: 10/03/17 09:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 00:56	1
<b>Acetone</b>	<b>340</b>		50		ug/L			10/10/17 00:56	1
Benzene	ND		1.0		ug/L			10/10/17 00:56	1
Bromobenzene	ND		1.0		ug/L			10/10/17 00:56	1
Bromoform	ND		1.0		ug/L			10/10/17 00:56	1
Bromomethane	ND		2.0		ug/L			10/10/17 00:56	1
Carbon disulfide	ND		10		ug/L			10/10/17 00:56	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 00:56	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 00:56	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 00:56	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 00:56	1
Chloroethane	ND		2.0		ug/L			10/10/17 00:56	1
Chloroform	ND		1.0		ug/L			10/10/17 00:56	1
Chloromethane	ND		2.0		ug/L			10/10/17 00:56	1
<b>cis-1,2-Dichloroethene</b>	<b>1.0</b>		1.0		ug/L			10/10/17 00:56	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:56	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 00:56	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 00:56	1
Ethyl ether	ND		1.0		ug/L			10/10/17 00:56	1
<b>Ethylbenzene</b>	<b>6.5</b>		1.0		ug/L			10/10/17 00:56	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 00:56	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 00:56	1
Isopropyl ether	ND		10		ug/L			10/10/17 00:56	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 00:56	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 00:56	1
<b>m-Xylene &amp; p-Xylene</b>	<b>24</b>		2.0		ug/L			10/10/17 00:56	1
Naphthalene	ND		5.0		ug/L			10/10/17 00:56	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
<b>o-Xylene</b>	<b>8.4</b>		1.0		ug/L			10/10/17 00:56	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
Styrene	ND		1.0		ug/L			10/10/17 00:56	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 00:56	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 00:56	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 00:56	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 00:56	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 00:56	1
<b>Toluene</b>	<b>9.2</b>		1.0		ug/L			10/10/17 00:56	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 00:56	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 00:56	1
Trichloroethene	ND		1.0		ug/L			10/10/17 00:56	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 00:56	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 00:56	1
Dibromomethane	ND		1.0		ug/L			10/10/17 00:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/10/17 00:56	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		10/10/17 00:56	1
4-Bromofluorobenzene (Surr)	87		70 - 130		10/10/17 00:56	1

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120	^	0.050		mg/L		10/04/17 09:15	10/04/17 23:48	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		2.5		mg/L			10/06/17 12:18	5
Sulfate	ND		10		mg/L			10/06/17 12:18	5
Ammonia	1.3		0.20		mg/L		10/04/17 18:10	10/05/17 11:42	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:30	1
TOC Result 1	62		1.0		mg/L			10/04/17 21:09	1
TOC Result 2	60		1.0		mg/L			10/04/17 21:09	1
Total Organic Carbon - Duplicates	61		1.0		mg/L			10/04/17 21:09	1
Alkalinity, Total	1100		5.0		mg/L			10/04/17 22:47	1
ortho-Phosphate	ND		0.10		mg/L			10/04/17 19:50	5
ortho-Phosphate	ND		0.020		mg/L			10/04/17 21:37	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1		SU			10/04/17 17:44	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 17:44	1

Client Sample ID: MW-562-20171003

Lab Sample ID: 480-125214-9

Date Collected: 10/03/17 08:30

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1,1-Trichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1,2,2-Tetrachloroethane	ND		20		ug/L			10/10/17 01:19	40
1,1,2-Trichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloroethene	ND		40		ug/L			10/10/17 01:19	40
1,1-Dichloropropene	ND		40		ug/L			10/10/17 01:19	40
1,2,3-Trichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2,3-Trichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,2,4-Trichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2,4-Trimethylbenzene	ND		40		ug/L			10/10/17 01:19	40
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			10/10/17 01:19	40
1,2-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,2-Dichloroethane	ND		40		ug/L			10/10/17 01:19	40
1,2-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,3,5-Trimethylbenzene	ND		40		ug/L			10/10/17 01:19	40
1,3-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,3-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
1,4-Dichlorobenzene	ND		40		ug/L			10/10/17 01:19	40
1,4-Dioxane	ND		2000		ug/L			10/10/17 01:19	40
2,2-Dichloropropane	ND		40		ug/L			10/10/17 01:19	40
2-Butanone (MEK)	ND	*	400		ug/L			10/10/17 01:19	40
2-Chlorotoluene	ND		40		ug/L			10/10/17 01:19	40
2-Hexanone	ND		400		ug/L			10/10/17 01:19	40
4-Chlorotoluene	ND		40		ug/L			10/10/17 01:19	40
4-Isopropyltoluene	ND		40		ug/L			10/10/17 01:19	40
4-Methyl-2-pentanone (MIBK)	ND		400		ug/L			10/10/17 01:19	40
Acetone	5500		2000		ug/L			10/10/17 01:19	40
Benzene	ND		40		ug/L			10/10/17 01:19	40

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# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-562-20171003**

**Lab Sample ID: 480-125214-9**

**Date Collected: 10/03/17 08:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		40		ug/L			10/10/17 01:19	40
Bromoform	ND		40		ug/L			10/10/17 01:19	40
Bromomethane	ND		80		ug/L			10/10/17 01:19	40
Carbon disulfide	ND		400		ug/L			10/10/17 01:19	40
Carbon tetrachloride	ND		40		ug/L			10/10/17 01:19	40
Chlorobenzene	ND		40		ug/L			10/10/17 01:19	40
Chlorobromomethane	ND		40		ug/L			10/10/17 01:19	40
Chlorodibromomethane	ND		20		ug/L			10/10/17 01:19	40
Chloroethane	ND		80		ug/L			10/10/17 01:19	40
Chloroform	ND		40		ug/L			10/10/17 01:19	40
Chloromethane	ND		80		ug/L			10/10/17 01:19	40
cis-1,2-Dichloroethene	ND		40		ug/L			10/10/17 01:19	40
cis-1,3-Dichloropropene	ND		16		ug/L			10/10/17 01:19	40
Dichlorobromomethane	ND		20		ug/L			10/10/17 01:19	40
Dichlorodifluoromethane	ND		40		ug/L			10/10/17 01:19	40
Ethyl ether	ND		40		ug/L			10/10/17 01:19	40
Ethylbenzene	ND		40		ug/L			10/10/17 01:19	40
Ethylene Dibromide	ND		40		ug/L			10/10/17 01:19	40
Hexachlorobutadiene	ND		16		ug/L			10/10/17 01:19	40
Isopropyl ether	ND		400		ug/L			10/10/17 01:19	40
Isopropylbenzene	ND		40		ug/L			10/10/17 01:19	40
Methyl tert-butyl ether	ND		40		ug/L			10/10/17 01:19	40
Methylene Chloride	ND		40		ug/L			10/10/17 01:19	40
m-Xylene & p-Xylene	ND		80		ug/L			10/10/17 01:19	40
Naphthalene	ND		200		ug/L			10/10/17 01:19	40
n-Butylbenzene	ND		40		ug/L			10/10/17 01:19	40
N-Propylbenzene	ND		40		ug/L			10/10/17 01:19	40
o-Xylene	ND		40		ug/L			10/10/17 01:19	40
sec-Butylbenzene	ND		40		ug/L			10/10/17 01:19	40
Styrene	ND		40		ug/L			10/10/17 01:19	40
Tert-amyl methyl ether	ND		200		ug/L			10/10/17 01:19	40
Tert-butyl ethyl ether	ND		200		ug/L			10/10/17 01:19	40
tert-Butylbenzene	ND		40		ug/L			10/10/17 01:19	40
Tetrachloroethene	ND		40		ug/L			10/10/17 01:19	40
Tetrahydrofuran	ND		400		ug/L			10/10/17 01:19	40
Toluene	ND		40		ug/L			10/10/17 01:19	40
trans-1,2-Dichloroethene	ND		40		ug/L			10/10/17 01:19	40
trans-1,3-Dichloropropene	ND		16		ug/L			10/10/17 01:19	40
Trichloroethene	ND		40		ug/L			10/10/17 01:19	40
Trichlorofluoromethane	ND		40		ug/L			10/10/17 01:19	40
Vinyl chloride	ND		40		ug/L			10/10/17 01:19	40
Dibromomethane	ND		40		ug/L			10/10/17 01:19	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/10/17 01:19	40
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		10/10/17 01:19	40
4-Bromofluorobenzene (Surr)	89		70 - 130		10/10/17 01:19	40

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-562-20171003**

**Lab Sample ID: 480-125214-9**

Date Collected: 10/03/17 08:30

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	260	^	0.050		mg/L		10/04/17 09:15	10/04/17 23:52	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		2.5		mg/L			10/06/17 12:26	5
Sulfate	ND		10		mg/L			10/06/17 12:26	5
Ammonia	0.49		0.20		mg/L		10/04/17 18:10	10/05/17 11:43	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:31	1
TOC Result 1	630		10		mg/L			10/05/17 20:24	10
TOC Result 2	630		10		mg/L			10/05/17 20:24	10
Total Organic Carbon - Duplicates	630		10		mg/L			10/05/17 20:24	10
Alkalinity, Total	530		5.0		mg/L			10/04/17 22:56	1
ortho-Phosphate	0.28		0.10		mg/L			10/04/17 19:50	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.1	HF	0.1		SU			10/04/17 18:01	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 18:01	1

**Client Sample ID: MW-563-20171003**

**Lab Sample ID: 480-125214-10**

Date Collected: 10/03/17 10:53

Matrix: Water

Date Received: 10/04/17 02:15

**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			10/10/17 01:43	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 01:43	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 01:43	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 01:43	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 01:43	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 01:43	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 01:43	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 01:43	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 01:43	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 01:43	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 01:43	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 01:43	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
1,4-Dioxane	ND		50		ug/L			10/10/17 01:43	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 01:43	1
2-Butanone (MEK)	ND	*	10		ug/L			10/10/17 01:43	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 01:43	1
2-Hexanone	ND		10		ug/L			10/10/17 01:43	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 01:43	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 01:43	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 01:43	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-563-20171003**

**Lab Sample ID: 480-125214-10**

**Date Collected: 10/03/17 10:53**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50		ug/L			10/10/17 01:43	1
Benzene	ND		1.0		ug/L			10/10/17 01:43	1
Bromobenzene	ND		1.0		ug/L			10/10/17 01:43	1
Bromoform	ND		1.0		ug/L			10/10/17 01:43	1
Bromomethane	ND		2.0		ug/L			10/10/17 01:43	1
Carbon disulfide	ND		10		ug/L			10/10/17 01:43	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 01:43	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 01:43	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 01:43	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 01:43	1
Chloroethane	ND		2.0		ug/L			10/10/17 01:43	1
Chloroform	ND		1.0		ug/L			10/10/17 01:43	1
Chloromethane	ND		2.0		ug/L			10/10/17 01:43	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 01:43	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 01:43	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 01:43	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 01:43	1
Ethyl ether	ND		1.0		ug/L			10/10/17 01:43	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 01:43	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 01:43	1
Isopropyl ether	ND		10		ug/L			10/10/17 01:43	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 01:43	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 01:43	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 01:43	1
Naphthalene	ND		5.0		ug/L			10/10/17 01:43	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
o-Xylene	ND		1.0		ug/L			10/10/17 01:43	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
Styrene	ND		1.0		ug/L			10/10/17 01:43	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 01:43	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 01:43	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 01:43	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 01:43	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 01:43	1
Toluene	ND		1.0		ug/L			10/10/17 01:43	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 01:43	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 01:43	1
Trichloroethene	ND		1.0		ug/L			10/10/17 01:43	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 01:43	1
<b>Vinyl chloride</b>	<b>1.5</b>		1.0		ug/L			10/10/17 01:43	1
Dibromomethane	ND		1.0		ug/L			10/10/17 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/10/17 01:43	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/10/17 01:43	1
4-Bromofluorobenzene (Surr)	86		70 - 130		10/10/17 01:43	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-563-20171003**

**Lab Sample ID: 480-125214-10**

Date Collected: 10/03/17 10:53

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	28	^	0.050		mg/L		10/04/17 09:15	10/05/17 00:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		0.50		mg/L			10/06/17 13:15	1
Sulfate	ND		2.0		mg/L			10/06/17 13:15	1
Ammonia	1.1		0.20		mg/L		10/04/17 18:10	10/05/17 11:44	1
Nitrate as N	ND		0.050		mg/L			10/04/17 15:26	1
TOC Result 1	2.0		1.0		mg/L			10/04/17 22:03	1
TOC Result 2	1.5		1.0		mg/L			10/04/17 22:03	1
Total Organic Carbon - Duplicates	1.8		1.0		mg/L			10/04/17 22:03	1
Alkalinity, Total	180		5.0		mg/L			10/04/17 23:02	1
ortho-Phosphate	ND		0.020		mg/L			10/04/17 19:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.1	HF	0.1		SU			10/04/17 17:47	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 17:47	1

**Client Sample ID: REW-6-20171003**

**Lab Sample ID: 480-125214-11**

Date Collected: 10/03/17 12:55

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			10/10/17 02:06	2
1,1,1-Trichloroethane	ND		2.0		ug/L			10/10/17 02:06	2
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			10/10/17 02:06	2
1,1,2-Trichloroethane	ND		2.0		ug/L			10/10/17 02:06	2
1,1-Dichloroethane	ND		2.0		ug/L			10/10/17 02:06	2
1,1-Dichloroethene	ND		2.0		ug/L			10/10/17 02:06	2
1,1-Dichloropropene	ND		2.0		ug/L			10/10/17 02:06	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,2,3-Trichloropropane	ND		2.0		ug/L			10/10/17 02:06	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,2,4-Trimethylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			10/10/17 02:06	2
1,2-Dichlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,2-Dichloroethane	ND		2.0		ug/L			10/10/17 02:06	2
1,2-Dichloropropane	ND		2.0		ug/L			10/10/17 02:06	2
1,3,5-Trimethylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,3-Dichlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,3-Dichloropropane	ND		2.0		ug/L			10/10/17 02:06	2
1,4-Dichlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
1,4-Dioxane	ND		100		ug/L			10/10/17 02:06	2
2,2-Dichloropropane	ND		2.0		ug/L			10/10/17 02:06	2
2-Butanone (MEK)	320	*	20		ug/L			10/10/17 02:06	2
2-Chlorotoluene	ND		2.0		ug/L			10/10/17 02:06	2
2-Hexanone	ND		20		ug/L			10/10/17 02:06	2
4-Chlorotoluene	ND		2.0		ug/L			10/10/17 02:06	2
4-Isopropyltoluene	ND		2.0		ug/L			10/10/17 02:06	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			10/10/17 02:06	2

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-6-20171003**

**Lab Sample ID: 480-125214-11**

**Date Collected: 10/03/17 12:55**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100		ug/L			10/10/17 02:06	2
Benzene	ND		2.0		ug/L			10/10/17 02:06	2
Bromobenzene	ND		2.0		ug/L			10/10/17 02:06	2
Bromoform	ND		2.0		ug/L			10/10/17 02:06	2
Bromomethane	ND		4.0		ug/L			10/10/17 02:06	2
Carbon disulfide	ND		20		ug/L			10/10/17 02:06	2
Carbon tetrachloride	ND		2.0		ug/L			10/10/17 02:06	2
Chlorobenzene	ND		2.0		ug/L			10/10/17 02:06	2
Chlorobromomethane	ND		2.0		ug/L			10/10/17 02:06	2
Chlorodibromomethane	ND		1.0		ug/L			10/10/17 02:06	2
Chloroethane	ND		4.0		ug/L			10/10/17 02:06	2
Chloroform	ND		2.0		ug/L			10/10/17 02:06	2
Chloromethane	ND		4.0		ug/L			10/10/17 02:06	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			10/10/17 02:06	2
cis-1,3-Dichloropropene	ND		0.80		ug/L			10/10/17 02:06	2
Dichlorobromomethane	ND		1.0		ug/L			10/10/17 02:06	2
Dichlorodifluoromethane	ND		2.0		ug/L			10/10/17 02:06	2
Ethyl ether	ND		2.0		ug/L			10/10/17 02:06	2
Ethylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
Ethylene Dibromide	ND		2.0		ug/L			10/10/17 02:06	2
Hexachlorobutadiene	ND		0.80		ug/L			10/10/17 02:06	2
Isopropyl ether	ND		20		ug/L			10/10/17 02:06	2
Isopropylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
Methyl tert-butyl ether	ND		2.0		ug/L			10/10/17 02:06	2
Methylene Chloride	ND		2.0		ug/L			10/10/17 02:06	2
m-Xylene & p-Xylene	ND		4.0		ug/L			10/10/17 02:06	2
<b>Naphthalene</b>	<b>12</b>		10		ug/L			10/10/17 02:06	2
n-Butylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
N-Propylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
o-Xylene	ND		2.0		ug/L			10/10/17 02:06	2
sec-Butylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
Styrene	ND		2.0		ug/L			10/10/17 02:06	2
Tert-amyl methyl ether	ND		10		ug/L			10/10/17 02:06	2
Tert-butyl ethyl ether	ND		10		ug/L			10/10/17 02:06	2
tert-Butylbenzene	ND		2.0		ug/L			10/10/17 02:06	2
Tetrachloroethene	ND		2.0		ug/L			10/10/17 02:06	2
Tetrahydrofuran	ND		20		ug/L			10/10/17 02:06	2
<b>Toluene</b>	<b>20</b>		2.0		ug/L			10/10/17 02:06	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			10/10/17 02:06	2
trans-1,3-Dichloropropene	ND		0.80		ug/L			10/10/17 02:06	2
Trichloroethene	ND		2.0		ug/L			10/10/17 02:06	2
Trichlorofluoromethane	ND		2.0		ug/L			10/10/17 02:06	2
Vinyl chloride	ND		2.0		ug/L			10/10/17 02:06	2
Dibromomethane	ND		2.0		ug/L			10/10/17 02:06	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		10/10/17 02:06	2
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/10/17 02:06	2
4-Bromofluorobenzene (Surr)	86		70 - 130		10/10/17 02:06	2

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-6-20171003**

**Lab Sample ID: 480-125214-11**

Date Collected: 10/03/17 12:55

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	69	^	0.050		mg/L		10/04/17 09:15	10/05/17 00:24	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		2.5		mg/L			10/06/17 15:28	5
Sulfate	ND		10		mg/L			10/06/17 15:28	5
Ammonia	0.40		0.20		mg/L		10/04/17 18:10	10/05/17 11:50	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:36	1
TOC Result 1	3200		80		mg/L			10/04/17 23:22	80
TOC Result 2	3300		80		mg/L			10/04/17 23:22	80
Total Organic Carbon - Duplicates	3200		80		mg/L			10/04/17 23:22	80
Alkalinity, Total	800		5.0		mg/L			10/04/17 23:12	1
ortho-Phosphate	0.48		0.020		mg/L			10/04/17 19:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.0	HF	0.1		SU			10/04/17 18:04	1
Temperature	21.9	HF	0.001		Degrees C			10/04/17 18:04	1

**Client Sample ID: REW-7-20171003**

**Lab Sample ID: 480-125214-12**

Date Collected: 10/03/17 12:15

Matrix: Water

Date Received: 10/04/17 02:15

**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			10/10/17 02:30	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 02:30	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 02:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 02:30	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 02:30	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 02:30	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 02:30	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 02:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 02:30	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 02:30	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 02:30	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 02:30	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
1,4-Dioxane	ND		50		ug/L			10/10/17 02:30	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 02:30	1
2-Butanone (MEK)	ND	*	10		ug/L			10/10/17 02:30	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 02:30	1
2-Hexanone	ND		10		ug/L			10/10/17 02:30	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 02:30	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 02:30	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 02:30	1

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-7-20171003**

**Lab Sample ID: 480-125214-12**

**Date Collected: 10/03/17 12:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50		ug/L			10/10/17 02:30	1
Benzene	ND		1.0		ug/L			10/10/17 02:30	1
Bromobenzene	ND		1.0		ug/L			10/10/17 02:30	1
Bromoform	ND		1.0		ug/L			10/10/17 02:30	1
Bromomethane	ND		2.0		ug/L			10/10/17 02:30	1
Carbon disulfide	ND		10		ug/L			10/10/17 02:30	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 02:30	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 02:30	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 02:30	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 02:30	1
Chloroethane	ND		2.0		ug/L			10/10/17 02:30	1
Chloroform	ND		1.0		ug/L			10/10/17 02:30	1
Chloromethane	ND		2.0		ug/L			10/10/17 02:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 02:30	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 02:30	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 02:30	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 02:30	1
Ethyl ether	ND		1.0		ug/L			10/10/17 02:30	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 02:30	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 02:30	1
Isopropyl ether	ND		10		ug/L			10/10/17 02:30	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 02:30	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 02:30	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 02:30	1
Naphthalene	ND		5.0		ug/L			10/10/17 02:30	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
o-Xylene	ND		1.0		ug/L			10/10/17 02:30	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
Styrene	ND		1.0		ug/L			10/10/17 02:30	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 02:30	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 02:30	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 02:30	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 02:30	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 02:30	1
Toluene	ND		1.0		ug/L			10/10/17 02:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 02:30	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 02:30	1
Trichloroethene	ND		1.0		ug/L			10/10/17 02:30	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 02:30	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 02:30	1
Dibromomethane	ND		1.0		ug/L			10/10/17 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		10/10/17 02:30	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		10/10/17 02:30	1
4-Bromofluorobenzene (Surr)	88		70 - 130		10/10/17 02:30	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-7-20171003**

**Lab Sample ID: 480-125214-12**

Date Collected: 10/03/17 12:15

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	5.1	^	0.050		mg/L		10/04/17 09:15	10/05/17 00:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		0.50		mg/L			10/06/17 15:43	1
Sulfate	ND		2.0		mg/L			10/06/17 15:43	1
Ammonia	3.0		0.40		mg/L		10/04/17 18:10	10/05/17 12:12	2
Nitrate as N	ND		0.050		mg/L			10/04/17 15:29	1
TOC Result 1	2.1		1.0		mg/L			10/04/17 23:48	1
TOC Result 2	1.7		1.0		mg/L			10/04/17 23:48	1
Total Organic Carbon - Duplicates	1.9		1.0		mg/L			10/04/17 23:48	1
Alkalinity, Total	120		5.0		mg/L			10/04/17 23:18	1
ortho-Phosphate	0.082		0.020		mg/L			10/04/17 19:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.3	HF	0.1		SU			10/04/17 17:53	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 17:53	1

**Client Sample ID: REW-11-20171003**

**Lab Sample ID: 480-125214-13**

Date Collected: 10/03/17 13:30

Matrix: Water

Date Received: 10/04/17 02:15

**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			10/10/17 02:53	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 02:53	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 02:53	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 02:53	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 02:53	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 02:53	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 02:53	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 02:53	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 02:53	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 02:53	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 02:53	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 02:53	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
1,4-Dioxane	ND		50		ug/L			10/10/17 02:53	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 02:53	1
2-Butanone (MEK)	190	*	10		ug/L			10/10/17 02:53	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 02:53	1
2-Hexanone	ND		10		ug/L			10/10/17 02:53	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 02:53	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 02:53	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 02:53	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-11-20171003**

**Lab Sample ID: 480-125214-13**

Date Collected: 10/03/17 13:30

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50		ug/L			10/10/17 02:53	1
Benzene	ND		1.0		ug/L			10/10/17 02:53	1
Bromobenzene	ND		1.0		ug/L			10/10/17 02:53	1
Bromoform	ND		1.0		ug/L			10/10/17 02:53	1
Bromomethane	ND		2.0		ug/L			10/10/17 02:53	1
Carbon disulfide	ND		10		ug/L			10/10/17 02:53	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 02:53	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 02:53	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 02:53	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 02:53	1
Chloroethane	ND		2.0		ug/L			10/10/17 02:53	1
Chloroform	ND		1.0		ug/L			10/10/17 02:53	1
Chloromethane	ND		2.0		ug/L			10/10/17 02:53	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 02:53	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 02:53	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 02:53	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 02:53	1
Ethyl ether	ND		1.0		ug/L			10/10/17 02:53	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 02:53	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 02:53	1
Isopropyl ether	ND		10		ug/L			10/10/17 02:53	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 02:53	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 02:53	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 02:53	1
Naphthalene	ND		5.0		ug/L			10/10/17 02:53	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
o-Xylene	ND		1.0		ug/L			10/10/17 02:53	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
Styrene	ND		1.0		ug/L			10/10/17 02:53	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 02:53	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 02:53	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 02:53	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 02:53	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 02:53	1
<b>Toluene</b>	<b>17</b>		1.0		ug/L			10/10/17 02:53	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 02:53	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 02:53	1
Trichloroethene	ND		1.0		ug/L			10/10/17 02:53	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 02:53	1
<b>Vinyl chloride</b>	<b>2.8</b>		1.0		ug/L			10/10/17 02:53	1
Dibromomethane	ND		1.0		ug/L			10/10/17 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		10/10/17 02:53	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		10/10/17 02:53	1
4-Bromofluorobenzene (Surr)	84		70 - 130		10/10/17 02:53	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-11-20171003**

**Lab Sample ID: 480-125214-13**

Date Collected: 10/03/17 13:30

Matrix: Water

Date Received: 10/04/17 02:15

## Method: 6010 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	97	^	0.050		mg/L		10/04/17 09:15	10/05/17 00:32	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		2.5		mg/L			10/06/17 15:57	5
Sulfate	ND		10		mg/L			10/06/17 15:57	5
Ammonia	0.85		0.20		mg/L		10/09/17 14:20	10/09/17 15:10	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:37	1
TOC Result 1	1800		40		mg/L			10/05/17 20:51	40
TOC Result 2	1900		40		mg/L			10/05/17 20:51	40
Total Organic Carbon - Duplicates	1800		40		mg/L			10/05/17 20:51	40
Alkalinity, Total	730		5.0		mg/L			10/04/17 23:56	1
ortho-Phosphate	0.098		0.020		mg/L			10/04/17 19:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.4	HF	0.1		SU			10/04/17 18:06	1
Temperature	22.0	HF	0.001		Degrees C			10/04/17 18:06	1

**Client Sample ID: REW-12-20171003**

**Lab Sample ID: 480-125214-14**

Date Collected: 10/03/17 11:30

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40		ug/L			10/10/17 03:17	40
1,1,1-Trichloroethane	ND		40		ug/L			10/10/17 03:17	40
1,1,2,2-Tetrachloroethane	ND		20		ug/L			10/10/17 03:17	40
1,1,2-Trichloroethane	ND		40		ug/L			10/10/17 03:17	40
1,1-Dichloroethane	ND		40		ug/L			10/10/17 03:17	40
1,1-Dichloroethene	ND		40		ug/L			10/10/17 03:17	40
1,1-Dichloropropene	ND		40		ug/L			10/10/17 03:17	40
1,2,3-Trichlorobenzene	ND		40		ug/L			10/10/17 03:17	40
1,2,3-Trichloropropane	ND		40		ug/L			10/10/17 03:17	40
1,2,4-Trichlorobenzene	ND		40		ug/L			10/10/17 03:17	40
1,2,4-Trimethylbenzene	ND		40		ug/L			10/10/17 03:17	40
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			10/10/17 03:17	40
1,2-Dichlorobenzene	ND		40		ug/L			10/10/17 03:17	40
1,2-Dichloroethane	ND		40		ug/L			10/10/17 03:17	40
1,2-Dichloropropane	ND		40		ug/L			10/10/17 03:17	40
1,3,5-Trimethylbenzene	ND		40		ug/L			10/10/17 03:17	40
1,3-Dichlorobenzene	ND		40		ug/L			10/10/17 03:17	40
1,3-Dichloropropane	ND		40		ug/L			10/10/17 03:17	40
1,4-Dichlorobenzene	ND		40		ug/L			10/10/17 03:17	40
1,4-Dioxane	ND		2000		ug/L			10/10/17 03:17	40
2,2-Dichloropropane	ND		40		ug/L			10/10/17 03:17	40
2-Butanone (MEK)	ND	*	400		ug/L			10/10/17 03:17	40
2-Chlorotoluene	ND		40		ug/L			10/10/17 03:17	40
2-Hexanone	ND		400		ug/L			10/10/17 03:17	40
4-Chlorotoluene	ND		40		ug/L			10/10/17 03:17	40
4-Isopropyltoluene	ND		40		ug/L			10/10/17 03:17	40
4-Methyl-2-pentanone (MIBK)	ND		400		ug/L			10/10/17 03:17	40

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-12-20171003**

**Lab Sample ID: 480-125214-14**

**Date Collected: 10/03/17 11:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		2000		ug/L			10/10/17 03:17	40
Benzene	ND		40		ug/L			10/10/17 03:17	40
Bromobenzene	ND		40		ug/L			10/10/17 03:17	40
Bromoform	ND		40		ug/L			10/10/17 03:17	40
Bromomethane	ND		80		ug/L			10/10/17 03:17	40
Carbon disulfide	ND		400		ug/L			10/10/17 03:17	40
Carbon tetrachloride	ND		40		ug/L			10/10/17 03:17	40
Chlorobenzene	ND		40		ug/L			10/10/17 03:17	40
Chlorobromomethane	ND		40		ug/L			10/10/17 03:17	40
Chlorodibromomethane	ND		20		ug/L			10/10/17 03:17	40
Chloroethane	ND		80		ug/L			10/10/17 03:17	40
Chloroform	ND		40		ug/L			10/10/17 03:17	40
Chloromethane	ND		80		ug/L			10/10/17 03:17	40
cis-1,2-Dichloroethene	ND		40		ug/L			10/10/17 03:17	40
cis-1,3-Dichloropropene	ND		16		ug/L			10/10/17 03:17	40
Dichlorobromomethane	ND		20		ug/L			10/10/17 03:17	40
Dichlorodifluoromethane	ND		40		ug/L			10/10/17 03:17	40
Ethyl ether	ND		40		ug/L			10/10/17 03:17	40
Ethylbenzene	ND		40		ug/L			10/10/17 03:17	40
Ethylene Dibromide	ND		40		ug/L			10/10/17 03:17	40
Hexachlorobutadiene	ND		16		ug/L			10/10/17 03:17	40
Isopropyl ether	ND		400		ug/L			10/10/17 03:17	40
Isopropylbenzene	ND		40		ug/L			10/10/17 03:17	40
Methyl tert-butyl ether	ND		40		ug/L			10/10/17 03:17	40
Methylene Chloride	ND		40		ug/L			10/10/17 03:17	40
m-Xylene & p-Xylene	ND		80		ug/L			10/10/17 03:17	40
Naphthalene	ND		200		ug/L			10/10/17 03:17	40
n-Butylbenzene	ND		40		ug/L			10/10/17 03:17	40
N-Propylbenzene	ND		40		ug/L			10/10/17 03:17	40
o-Xylene	ND		40		ug/L			10/10/17 03:17	40
sec-Butylbenzene	ND		40		ug/L			10/10/17 03:17	40
Styrene	ND		40		ug/L			10/10/17 03:17	40
Tert-amyl methyl ether	ND		200		ug/L			10/10/17 03:17	40
Tert-butyl ethyl ether	ND		200		ug/L			10/10/17 03:17	40
tert-Butylbenzene	ND		40		ug/L			10/10/17 03:17	40
Tetrachloroethene	ND		40		ug/L			10/10/17 03:17	40
Tetrahydrofuran	ND		400		ug/L			10/10/17 03:17	40
<b>Toluene</b>	<b>45</b>		40		ug/L			10/10/17 03:17	40
trans-1,2-Dichloroethene	ND		40		ug/L			10/10/17 03:17	40
trans-1,3-Dichloropropene	ND		16		ug/L			10/10/17 03:17	40
Trichloroethene	ND		40		ug/L			10/10/17 03:17	40
Trichlorofluoromethane	ND		40		ug/L			10/10/17 03:17	40
Vinyl chloride	ND		40		ug/L			10/10/17 03:17	40
Dibromomethane	ND		40		ug/L			10/10/17 03:17	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/10/17 03:17	40
1,2-Dichloroethane-d4 (Surr)	89		70 - 130		10/10/17 03:17	40
4-Bromofluorobenzene (Surr)	87		70 - 130		10/10/17 03:17	40

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-12-20171003**

**Lab Sample ID: 480-125214-14**

Date Collected: 10/03/17 11:30

Matrix: Water

Date Received: 10/04/17 02:15

**Method: 6010 - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	210	^	0.050		mg/L		10/04/17 09:15	10/05/17 00:35	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45		2.5		mg/L			10/06/17 16:12	5
Sulfate	ND		10		mg/L			10/06/17 16:12	5
Ammonia	0.97		0.20		mg/L		10/04/17 18:10	10/05/17 11:53	1
Nitrate as N	ND		0.050		mg/L			10/04/17 19:38	1
TOC Result 1	800		10		mg/L			10/05/17 21:17	10
TOC Result 2	800		10		mg/L			10/05/17 21:17	10
Total Organic Carbon - Duplicates	800		10		mg/L			10/05/17 21:17	10
Alkalinity, Total	430		5.0		mg/L			10/05/17 00:13	1
ortho-Phosphate	0.10		0.020		mg/L			10/04/17 19:50	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.3	HF	0.1		SU			10/04/17 18:09	1
Temperature	21.9	HF	0.001		Degrees C			10/04/17 18:09	1

**Client Sample ID: DUP1-20171003**

**Lab Sample ID: 480-125214-15**

Date Collected: 10/03/17 00:00

Matrix: Water

Date Received: 10/04/17 02:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			10/10/17 11:58	2
1,1,1-Trichloroethane	ND		2.0		ug/L			10/10/17 11:58	2
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			10/10/17 11:58	2
1,1,2-Trichloroethane	ND		2.0		ug/L			10/10/17 11:58	2
1,1-Dichloroethane	ND		2.0		ug/L			10/10/17 11:58	2
1,1-Dichloroethene	ND		2.0		ug/L			10/10/17 11:58	2
1,1-Dichloropropene	ND		2.0		ug/L			10/10/17 11:58	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,2,3-Trichloropropane	ND		2.0		ug/L			10/10/17 11:58	2
1,2,4-Trichlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,2,4-Trimethylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			10/10/17 11:58	2
1,2-Dichlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,2-Dichloroethane	ND		2.0		ug/L			10/10/17 11:58	2
1,2-Dichloropropane	ND		2.0		ug/L			10/10/17 11:58	2
1,3,5-Trimethylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,3-Dichlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,3-Dichloropropane	ND		2.0		ug/L			10/10/17 11:58	2
1,4-Dichlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
1,4-Dioxane	ND		100		ug/L			10/10/17 11:58	2
2,2-Dichloropropane	ND		2.0		ug/L			10/10/17 11:58	2
2-Butanone (MEK)	42	*	20		ug/L			10/10/17 11:58	2
2-Chlorotoluene	ND		2.0		ug/L			10/10/17 11:58	2
2-Hexanone	ND		20		ug/L			10/10/17 11:58	2
4-Chlorotoluene	ND		2.0		ug/L			10/10/17 11:58	2
4-Isopropyltoluene	ND		2.0		ug/L			10/10/17 11:58	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			10/10/17 11:58	2

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: DUP1-20171003**

**Lab Sample ID: 480-125214-15**

**Date Collected: 10/03/17 00:00**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>430</b>		100		ug/L			10/10/17 11:58	2
Benzene	ND		2.0		ug/L			10/10/17 11:58	2
Bromobenzene	ND		2.0		ug/L			10/10/17 11:58	2
Bromoform	ND		2.0		ug/L			10/10/17 11:58	2
Bromomethane	ND		4.0		ug/L			10/10/17 11:58	2
Carbon disulfide	ND		20		ug/L			10/10/17 11:58	2
Carbon tetrachloride	ND		2.0		ug/L			10/10/17 11:58	2
Chlorobenzene	ND		2.0		ug/L			10/10/17 11:58	2
Chlorobromomethane	ND		2.0		ug/L			10/10/17 11:58	2
Chlorodibromomethane	ND		1.0		ug/L			10/10/17 11:58	2
Chloroethane	ND		4.0		ug/L			10/10/17 11:58	2
Chloroform	ND		2.0		ug/L			10/10/17 11:58	2
Chloromethane	ND		4.0		ug/L			10/10/17 11:58	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			10/10/17 11:58	2
cis-1,3-Dichloropropene	ND		0.80		ug/L			10/10/17 11:58	2
Dichlorobromomethane	ND		1.0		ug/L			10/10/17 11:58	2
Dichlorodifluoromethane	ND		2.0		ug/L			10/10/17 11:58	2
Ethyl ether	ND		2.0		ug/L			10/10/17 11:58	2
<b>Ethylbenzene</b>	<b>6.4</b>		2.0		ug/L			10/10/17 11:58	2
Ethylene Dibromide	ND		2.0		ug/L			10/10/17 11:58	2
Hexachlorobutadiene	ND		0.80		ug/L			10/10/17 11:58	2
Isopropyl ether	ND		20		ug/L			10/10/17 11:58	2
Isopropylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
Methyl tert-butyl ether	ND		2.0		ug/L			10/10/17 11:58	2
Methylene Chloride	ND		2.0		ug/L			10/10/17 11:58	2
<b>m-Xylene &amp; p-Xylene</b>	<b>25</b>		4.0		ug/L			10/10/17 11:58	2
Naphthalene	ND		10		ug/L			10/10/17 11:58	2
n-Butylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
N-Propylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
<b>o-Xylene</b>	<b>8.8</b>		2.0		ug/L			10/10/17 11:58	2
sec-Butylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
Styrene	ND		2.0		ug/L			10/10/17 11:58	2
Tert-amyl methyl ether	ND		10		ug/L			10/10/17 11:58	2
Tert-butyl ethyl ether	ND		10		ug/L			10/10/17 11:58	2
tert-Butylbenzene	ND		2.0		ug/L			10/10/17 11:58	2
Tetrachloroethene	ND		2.0		ug/L			10/10/17 11:58	2
Tetrahydrofuran	ND		20		ug/L			10/10/17 11:58	2
<b>Toluene</b>	<b>11</b>		2.0		ug/L			10/10/17 11:58	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			10/10/17 11:58	2
trans-1,3-Dichloropropene	ND		0.80		ug/L			10/10/17 11:58	2
Trichloroethene	ND		2.0		ug/L			10/10/17 11:58	2
Trichlorofluoromethane	ND		2.0		ug/L			10/10/17 11:58	2
Vinyl chloride	ND		2.0		ug/L			10/10/17 11:58	2
Dibromomethane	ND		2.0		ug/L			10/10/17 11:58	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		10/10/17 11:58	2
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		10/10/17 11:58	2
4-Bromofluorobenzene (Surr)	83		70 - 130		10/10/17 11:58	2

TestAmerica Buffalo



# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: TRIP BLANKS**

**Lab Sample ID: 480-125214-16**

**Date Collected: 10/03/17 00:00**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

**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			10/10/17 04:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 04:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 04:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 04:04	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
1,4-Dioxane	ND		50		ug/L			10/10/17 04:04	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 04:04	1
2-Butanone (MEK)	ND	*	10		ug/L			10/10/17 04:04	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 04:04	1
2-Hexanone	ND		10		ug/L			10/10/17 04:04	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 04:04	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 04:04	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 04:04	1
Acetone	ND		50		ug/L			10/10/17 04:04	1
Benzene	ND		1.0		ug/L			10/10/17 04:04	1
Bromobenzene	ND		1.0		ug/L			10/10/17 04:04	1
Bromoform	ND		1.0		ug/L			10/10/17 04:04	1
Bromomethane	ND		2.0		ug/L			10/10/17 04:04	1
Carbon disulfide	ND		10		ug/L			10/10/17 04:04	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 04:04	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 04:04	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 04:04	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 04:04	1
Chloroethane	ND		2.0		ug/L			10/10/17 04:04	1
Chloroform	ND		1.0		ug/L			10/10/17 04:04	1
Chloromethane	ND		2.0		ug/L			10/10/17 04:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 04:04	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 04:04	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 04:04	1
Ethyl ether	ND		1.0		ug/L			10/10/17 04:04	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 04:04	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 04:04	1
Isopropyl ether	ND		10		ug/L			10/10/17 04:04	1

TestAmerica Buffalo

# Client Sample Results

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: TRIP BLANKS**

**Lab Sample ID: 480-125214-16**

**Date Collected: 10/03/17 00:00**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 04:04	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 04:04	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 04:04	1
Naphthalene	ND		5.0		ug/L			10/10/17 04:04	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
o-Xylene	ND		1.0		ug/L			10/10/17 04:04	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Styrene	ND		1.0		ug/L			10/10/17 04:04	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 04:04	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 04:04	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 04:04	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 04:04	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 04:04	1
Toluene	ND		1.0		ug/L			10/10/17 04:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 04:04	1
Trichloroethene	ND		1.0		ug/L			10/10/17 04:04	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 04:04	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 04:04	1
Dibromomethane	ND		1.0		ug/L			10/10/17 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130		10/10/17 04:04	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		10/10/17 04:04	1
4-Bromofluorobenzene (Surr)	85		70 - 130		10/10/17 04:04	1

# Surrogate Summary

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

TestAmerica Job ID: 480-125214-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (70-130)	12DCE (70-130)	BFB (70-130)
480-125214-1	DEP-21-20171002	100	99	80
480-125214-2	MW-264M-20171002	98	87	85
480-125214-3	MW-266MA-20171002	98	94	89
480-125214-4	MW-266MB-20171002	101	96	86
480-125214-5	MW-267M-20171002	100	91	86
480-125214-6	MW-269MA-20171002	100	98	87
480-125214-7	MW-560-20171003	101	97	87
480-125214-8	MW-561-20171003	100	96	87
480-125214-9	MW-562-20171003	99	89	89
480-125214-10	MW-563-20171003	100	95	86
480-125214-11	REW-6-20171003	101	94	86
480-125214-12	REW-7-20171003	100	101	88
480-125214-13	REW-11-20171003	97	95	84
480-125214-14	REW-12-20171003	99	89	87
480-125214-15	DUP1-20171003	97	94	83
480-125214-16	TRIP BLANKS	98	93	85
LCS 480-380799/5	Lab Control Sample	101	96	87
LCS 480-380932/5	Lab Control Sample	98	93	84
LCS 480-381006/4	Lab Control Sample	100	92	84
LCSD 480-380799/6	Lab Control Sample Dup	101	94	93
LCSD 480-380932/6	Lab Control Sample Dup	102	90	88
LCSD 480-381006/5	Lab Control Sample Dup	99	94	83
MB 480-380799/8	Method Blank	99	92	85
MB 480-380932/8	Method Blank	101	93	85
MB 480-381006/7	Method Blank	99	91	83

### Surrogate Legend

TOL = Toluene-d8 (Surr)  
12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		14DD8 (46-130)
480-125214-3	MW-266MA-20171002	66
480-125214-5	MW-267M-20171002	75
480-125214-6	MW-269MA-20171002	69
LCS 200-121935/2-A	Lab Control Sample	90
MB 200-121935/1-A	Method Blank	74

### Surrogate Legend

14DD8 = 1,4-Dioxane-d8 (Surr)

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: MB 480-380799/8

Matrix: Water

Analysis Batch: 380799

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			10/09/17 12:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 12:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 12:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 12:36	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
1,4-Dioxane	ND		50		ug/L			10/09/17 12:36	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 12:36	1
2-Butanone (MEK)	ND		10		ug/L			10/09/17 12:36	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 12:36	1
2-Hexanone	ND		10		ug/L			10/09/17 12:36	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 12:36	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 12:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 12:36	1
Acetone	ND		50		ug/L			10/09/17 12:36	1
Benzene	ND		1.0		ug/L			10/09/17 12:36	1
Bromobenzene	ND		1.0		ug/L			10/09/17 12:36	1
Bromoform	ND		1.0		ug/L			10/09/17 12:36	1
Bromomethane	ND		2.0		ug/L			10/09/17 12:36	1
Carbon disulfide	ND		10		ug/L			10/09/17 12:36	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 12:36	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 12:36	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 12:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 12:36	1
Chloroethane	ND		2.0		ug/L			10/09/17 12:36	1
Chloroform	ND		1.0		ug/L			10/09/17 12:36	1
Chloromethane	ND		2.0		ug/L			10/09/17 12:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 12:36	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 12:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 12:36	1
Ethyl ether	ND		1.0		ug/L			10/09/17 12:36	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 12:36	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 12:36	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: MB 480-380799/8**

**Matrix: Water**

**Analysis Batch: 380799**

**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			10/09/17 12:36	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/09/17 12:36	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 12:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 12:36	1
Naphthalene	ND		5.0		ug/L			10/09/17 12:36	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
o-Xylene	ND		1.0		ug/L			10/09/17 12:36	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Styrene	ND		1.0		ug/L			10/09/17 12:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 12:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 12:36	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 12:36	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 12:36	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 12:36	1
Toluene	ND		1.0		ug/L			10/09/17 12:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 12:36	1
Trichloroethene	ND		1.0		ug/L			10/09/17 12:36	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 12:36	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 12:36	1
Dibromomethane	ND		1.0		ug/L			10/09/17 12:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/09/17 12:36	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		10/09/17 12:36	1
4-Bromofluorobenzene (Surr)	85		70 - 130		10/09/17 12:36	1

**Lab Sample ID: LCS 480-380799/5**

**Matrix: Water**

**Analysis Batch: 380799**

**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	22.5		ug/L		90	70 - 130
1,1,1-Trichloroethane	25.0	21.8		ug/L		87	70 - 130
1,1,2,2-Tetrachloroethane	25.0	28.9		ug/L		115	70 - 130
1,1,2-Trichloroethane	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	24.0		ug/L		96	70 - 130
1,1-Dichloroethene	25.0	21.5		ug/L		86	70 - 130
1,1-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	25.0	21.7		ug/L		87	70 - 130
1,2,3-Trichloropropane	25.0	25.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	20.8		ug/L		83	70 - 130
1,2,4-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	22.7		ug/L		91	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	22.1		ug/L		88	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCS 480-380799/5

Matrix: Water

Analysis Batch: 380799

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	22.9		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	70 - 130
1,3-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichloropropane	25.0	27.9		ug/L		111	70 - 130
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dioxane	500	423		ug/L		85	70 - 130
2,2-Dichloropropane	25.0	23.2		ug/L		93	70 - 130
2-Butanone (MEK)	125	205	*	ug/L		164	70 - 130
2-Chlorotoluene	25.0	24.4		ug/L		97	70 - 130
2-Hexanone	125	127		ug/L		101	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
4-Isopropyltoluene	25.0	25.2		ug/L		101	70 - 130
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	70 - 130
Acetone	125	121		ug/L		97	70 - 130
Benzene	25.0	25.0		ug/L		100	70 - 130
Bromobenzene	25.0	21.7		ug/L		87	70 - 130
Bromoform	25.0	21.1		ug/L		84	70 - 130
Bromomethane	25.0	21.3		ug/L		85	70 - 130
Carbon disulfide	25.0	24.7		ug/L		99	70 - 130
Carbon tetrachloride	25.0	20.0		ug/L		80	70 - 130
Chlorobenzene	25.0	23.8		ug/L		95	70 - 130
Chlorobromomethane	25.0	21.0		ug/L		84	70 - 130
Chlorodibromomethane	25.0	21.6		ug/L		86	70 - 130
Chloroethane	25.0	22.9		ug/L		91	70 - 130
Chloroform	25.0	22.7		ug/L		91	70 - 130
Chloromethane	25.0	23.4		ug/L		94	70 - 130
cis-1,2-Dichloroethene	25.0	22.5		ug/L		90	70 - 130
cis-1,3-Dichloropropene	25.0	21.9		ug/L		87	70 - 130
Dichlorobromomethane	25.0	22.7		ug/L		91	70 - 130
Dichlorodifluoromethane	25.0	27.9		ug/L		112	70 - 130
Ethyl ether	25.0	19.9		ug/L		80	70 - 130
Ethylbenzene	25.0	24.7		ug/L		99	70 - 130
Ethylene Dibromide	25.0	25.6		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	21.7		ug/L		87	70 - 130
Isopropyl ether	25.0	22.5		ug/L		90	70 - 130
Isopropylbenzene	25.0	25.8		ug/L		103	70 - 130
Methyl tert-butyl ether	25.0	23.8		ug/L		95	70 - 130
Methylene Chloride	25.0	20.8		ug/L		83	70 - 130
m-Xylene & p-Xylene	25.0	22.9		ug/L		92	70 - 130
Naphthalene	25.0	25.0		ug/L		100	70 - 130
n-Butylbenzene	25.0	27.3		ug/L		109	70 - 130
N-Propylbenzene	25.0	26.3		ug/L		105	70 - 130
o-Xylene	25.0	22.9		ug/L		92	70 - 130
sec-Butylbenzene	25.0	26.1		ug/L		105	70 - 130
Styrene	25.0	23.8		ug/L		95	70 - 130
Tert-amyl methyl ether	25.0	24.5		ug/L		98	70 - 130
Tert-butyl ethyl ether	25.0	22.8		ug/L		91	70 - 130
tert-Butylbenzene	25.0	24.3		ug/L		97	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: LCS 480-380799/5**

**Matrix: Water**

**Analysis Batch: 380799**

**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	25.5		ug/L		102	70 - 130
Tetrahydrofuran	50.0	57.2		ug/L		114	70 - 130
Toluene	25.0	24.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 130
Trichloroethene	25.0	22.6		ug/L		90	70 - 130
Trichlorofluoromethane	25.0	23.9		ug/L		96	70 - 130
Vinyl chloride	25.0	23.5		ug/L		94	70 - 130
Dibromomethane	25.0	23.3		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	87		70 - 130

**Lab Sample ID: LCSD 480-380799/6**

**Matrix: Water**

**Analysis Batch: 380799**

**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	24.1		ug/L		96	70 - 130	7	20
1,1,1-Trichloroethane	25.0	23.6		ug/L		94	70 - 130	8	20
1,1,1,2,2-Tetrachloroethane	25.0	29.3		ug/L		117	70 - 130	1	20
1,1,1,2-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	1	20
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	6	20
1,1-Dichloroethene	25.0	23.9		ug/L		95	70 - 130	11	20
1,1-Dichloropropene	25.0	27.4		ug/L		110	70 - 130	12	20
1,2,3-Trichlorobenzene	25.0	21.2		ug/L		85	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	20.9		ug/L		84	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	21.6		ug/L		86	70 - 130	5	20
1,2-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130	2	20
1,2-Dichloroethane	25.0	23.7		ug/L		95	70 - 130	7	20
1,2-Dichloropropane	25.0	23.6		ug/L		94	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	25.3		ug/L		101	70 - 130	3	20
1,3-Dichlorobenzene	25.0	24.6		ug/L		99	70 - 130	2	20
1,3-Dichloropropane	25.0	29.3		ug/L		117	70 - 130	5	20
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130	1	20
1,4-Dioxane	500	501		ug/L		100	70 - 130	17	20
2,2-Dichloropropane	25.0	24.6		ug/L		98	70 - 130	6	20
2-Butanone (MEK)	125	203	*	ug/L		162	70 - 130	1	20
2-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130	4	20
2-Hexanone	125	128		ug/L		102	70 - 130	1	20
4-Chlorotoluene	25.0	27.3		ug/L		109	70 - 130	5	20
4-Isopropyltoluene	25.0	25.5		ug/L		102	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	70 - 130	3	20
Acetone	125	121		ug/L		97	70 - 130	0	20

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCSD 480-380799/6

Matrix: Water

Analysis Batch: 380799

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	26.1		ug/L		104	70 - 130	4	20
Bromobenzene	25.0	22.5		ug/L		90	70 - 130	3	20
Bromoform	25.0	21.9		ug/L		88	70 - 130	4	20
Bromomethane	25.0	23.8		ug/L		95	70 - 130	11	20
Carbon disulfide	25.0	26.1		ug/L		104	70 - 130	5	20
Carbon tetrachloride	25.0	21.9		ug/L		88	70 - 130	9	20
Chlorobenzene	25.0	25.6		ug/L		102	70 - 130	7	20
Chlorobromomethane	25.0	22.1		ug/L		89	70 - 130	5	20
Chlorodibromomethane	25.0	23.1		ug/L		93	70 - 130	7	20
Chloroethane	25.0	25.3		ug/L		101	70 - 130	10	20
Chloroform	25.0	23.9		ug/L		96	70 - 130	5	20
Chloromethane	25.0	25.2		ug/L		101	70 - 130	7	20
cis-1,2-Dichloroethene	25.0	24.9		ug/L		99	70 - 130	10	20
cis-1,3-Dichloropropene	25.0	22.7		ug/L		91	70 - 130	4	20
Dichlorobromomethane	25.0	23.3		ug/L		93	70 - 130	3	20
Dichlorodifluoromethane	25.0	30.5		ug/L		122	70 - 130	9	20
Ethyl ether	25.0	21.0		ug/L		84	70 - 130	5	20
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130	9	20
Ethylene Dibromide	25.0	26.6		ug/L		106	70 - 130	4	20
Hexachlorobutadiene	25.0	22.7		ug/L		91	70 - 130	5	20
Isopropyl ether	25.0	23.4		ug/L		94	70 - 130	4	20
Isopropylbenzene	25.0	27.2		ug/L		109	70 - 130	5	20
Methyl tert-butyl ether	25.0	24.4		ug/L		98	70 - 130	3	20
Methylene Chloride	25.0	22.4		ug/L		89	70 - 130	7	20
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	70 - 130	10	20
Naphthalene	25.0	24.6		ug/L		98	70 - 130	2	20
n-Butylbenzene	25.0	28.6		ug/L		114	70 - 130	4	20
N-Propylbenzene	25.0	27.9		ug/L		111	70 - 130	6	20
o-Xylene	25.0	25.4		ug/L		101	70 - 130	10	20
sec-Butylbenzene	25.0	27.5		ug/L		110	70 - 130	5	20
Styrene	25.0	25.4		ug/L		101	70 - 130	7	20
Tert-amyl methyl ether	25.0	24.4		ug/L		97	70 - 130	1	20
Tert-butyl ethyl ether	25.0	23.8		ug/L		95	70 - 130	4	20
tert-Butylbenzene	25.0	25.2		ug/L		101	70 - 130	4	20
Tetrachloroethene	25.0	29.1		ug/L		117	70 - 130	13	20
Tetrahydrofuran	50.0	57.4		ug/L		115	70 - 130	0	20
Toluene	25.0	26.0		ug/L		104	70 - 130	6	20
trans-1,2-Dichloroethene	25.0	24.6		ug/L		98	70 - 130	2	20
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 130	6	20
Trichloroethene	25.0	24.3		ug/L		97	70 - 130	8	20
Trichlorofluoromethane	25.0	26.5		ug/L		106	70 - 130	10	20
Vinyl chloride	25.0	25.8		ug/L		103	70 - 130	10	20
Dibromomethane	25.0	22.6		ug/L		90	70 - 130	3	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

Lab Sample ID: MB 480-380932/8  
 Matrix: Water  
 Analysis Batch: 380932

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			10/09/17 23:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/09/17 23:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
1,1-Dichloropropene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/09/17 23:36	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dichloroethane	ND		1.0		ug/L			10/09/17 23:36	1
1,2-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,3-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
1,4-Dioxane	ND		50		ug/L			10/09/17 23:36	1
2,2-Dichloropropane	ND		1.0		ug/L			10/09/17 23:36	1
2-Butanone (MEK)	ND		10		ug/L			10/09/17 23:36	1
2-Chlorotoluene	ND		1.0		ug/L			10/09/17 23:36	1
2-Hexanone	ND		10		ug/L			10/09/17 23:36	1
4-Chlorotoluene	ND		1.0		ug/L			10/09/17 23:36	1
4-Isopropyltoluene	ND		1.0		ug/L			10/09/17 23:36	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/09/17 23:36	1
Acetone	ND		50		ug/L			10/09/17 23:36	1
Benzene	ND		1.0		ug/L			10/09/17 23:36	1
Bromobenzene	ND		1.0		ug/L			10/09/17 23:36	1
Bromoform	ND		1.0		ug/L			10/09/17 23:36	1
Bromomethane	ND		2.0		ug/L			10/09/17 23:36	1
Carbon disulfide	ND		10		ug/L			10/09/17 23:36	1
Carbon tetrachloride	ND		1.0		ug/L			10/09/17 23:36	1
Chlorobenzene	ND		1.0		ug/L			10/09/17 23:36	1
Chlorobromomethane	ND		1.0		ug/L			10/09/17 23:36	1
Chlorodibromomethane	ND		0.50		ug/L			10/09/17 23:36	1
Chloroethane	ND		2.0		ug/L			10/09/17 23:36	1
Chloroform	ND		1.0		ug/L			10/09/17 23:36	1
Chloromethane	ND		2.0		ug/L			10/09/17 23:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
cis-1,3-Dichloropropane	ND		0.40		ug/L			10/09/17 23:36	1
Dichlorobromomethane	ND		0.50		ug/L			10/09/17 23:36	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/09/17 23:36	1
Ethyl ether	ND		1.0		ug/L			10/09/17 23:36	1
Ethylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Ethylene Dibromide	ND		1.0		ug/L			10/09/17 23:36	1
Hexachlorobutadiene	ND		0.40		ug/L			10/09/17 23:36	1
Isopropyl ether	ND		10		ug/L			10/09/17 23:36	1
Isopropylbenzene	ND		1.0		ug/L			10/09/17 23:36	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: MB 480-380932/8**

**Matrix: Water**

**Analysis Batch: 380932**

**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			10/09/17 23:36	1
Methylene Chloride	ND		1.0		ug/L			10/09/17 23:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/09/17 23:36	1
Naphthalene	ND		5.0		ug/L			10/09/17 23:36	1
n-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
N-Propylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
o-Xylene	ND		1.0		ug/L			10/09/17 23:36	1
sec-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Styrene	ND		1.0		ug/L			10/09/17 23:36	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/09/17 23:36	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/09/17 23:36	1
tert-Butylbenzene	ND		1.0		ug/L			10/09/17 23:36	1
Tetrachloroethene	ND		1.0		ug/L			10/09/17 23:36	1
Tetrahydrofuran	ND		10		ug/L			10/09/17 23:36	1
Toluene	ND		1.0		ug/L			10/09/17 23:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/09/17 23:36	1
Trichloroethene	ND		1.0		ug/L			10/09/17 23:36	1
Trichlorofluoromethane	ND		1.0		ug/L			10/09/17 23:36	1
Vinyl chloride	ND		1.0		ug/L			10/09/17 23:36	1
Dibromomethane	ND		1.0		ug/L			10/09/17 23:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		70 - 130		10/09/17 23:36	1
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		10/09/17 23:36	1
4-Bromofluorobenzene (Surr)	85		70 - 130		10/09/17 23:36	1

**Lab Sample ID: LCS 480-380932/5**

**Matrix: Water**

**Analysis Batch: 380932**

**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	24.8		ug/L		99	70 - 130
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,1,2,2-Tetrachloroethane	25.0	29.7		ug/L		119	70 - 130
1,1,2-Trichloroethane	25.0	26.4		ug/L		105	70 - 130
1,1-Dichloroethane	25.0	27.7		ug/L		111	70 - 130
1,1-Dichloroethene	25.0	24.9		ug/L		100	70 - 130
1,1-Dichloropropene	25.0	28.3		ug/L		113	70 - 130
1,2,3-Trichlorobenzene	25.0	22.2		ug/L		89	70 - 130
1,2,3-Trichloropropane	25.0	27.2		ug/L		109	70 - 130
1,2,4-Trichlorobenzene	25.0	22.7		ug/L		91	70 - 130
1,2,4-Trimethylbenzene	25.0	28.4		ug/L		114	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	70 - 130
1,2-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130
1,2-Dichloroethane	25.0	24.7		ug/L		99	70 - 130
1,2-Dichloropropane	25.0	25.4		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCS 480-380932/5

Matrix: Water

Analysis Batch: 380932

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	27.4		ug/L		110	70 - 130
1,3-Dichloropropane	25.0	29.5		ug/L		118	70 - 130
1,4-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
1,4-Dioxane	500	501		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	27.0		ug/L		108	70 - 130
2-Butanone (MEK)	125	230	*	ug/L		184	70 - 130
2-Chlorotoluene	25.0	27.0		ug/L		108	70 - 130
2-Hexanone	125	137		ug/L		109	70 - 130
4-Chlorotoluene	25.0	29.8		ug/L		119	70 - 130
4-Isopropyltoluene	25.0	28.8		ug/L		115	70 - 130
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	70 - 130
Acetone	125	159		ug/L		127	70 - 130
Benzene	25.0	28.7		ug/L		115	70 - 130
Bromobenzene	25.0	25.7		ug/L		103	70 - 130
Bromoform	25.0	20.8		ug/L		83	70 - 130
Bromomethane	25.0	25.2		ug/L		101	70 - 130
Carbon disulfide	25.0	27.7		ug/L		111	70 - 130
Carbon tetrachloride	25.0	23.3		ug/L		93	70 - 130
Chlorobenzene	25.0	26.8		ug/L		107	70 - 130
Chlorobromomethane	25.0	23.4		ug/L		94	70 - 130
Chlorodibromomethane	25.0	23.0		ug/L		92	70 - 130
Chloroethane	25.0	26.5		ug/L		106	70 - 130
Chloroform	25.0	26.0		ug/L		104	70 - 130
Chloromethane	25.0	27.0		ug/L		108	70 - 130
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 130
cis-1,3-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
Dichlorobromomethane	25.0	24.6		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	26.9		ug/L		108	70 - 130
Ethyl ether	25.0	22.6		ug/L		91	70 - 130
Ethylbenzene	25.0	27.3		ug/L		109	70 - 130
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130
Hexachlorobutadiene	25.0	25.9		ug/L		103	70 - 130
Isopropyl ether	25.0	24.7		ug/L		99	70 - 130
Isopropylbenzene	25.0	29.7		ug/L		119	70 - 130
Methyl tert-butyl ether	25.0	26.1		ug/L		104	70 - 130
Methylene Chloride	25.0	23.1		ug/L		92	70 - 130
m-Xylene & p-Xylene	25.0	26.0		ug/L		104	70 - 130
Naphthalene	25.0	26.9		ug/L		108	70 - 130
n-Butylbenzene	25.0	31.6		ug/L		126	70 - 130
N-Propylbenzene	25.0	30.8		ug/L		123	70 - 130
o-Xylene	25.0	26.4		ug/L		106	70 - 130
sec-Butylbenzene	25.0	29.7		ug/L		119	70 - 130
Styrene	25.0	26.4		ug/L		106	70 - 130
Tert-amyl methyl ether	25.0	25.7		ug/L		103	70 - 130
Tert-butyl ethyl ether	25.0	25.1		ug/L		100	70 - 130
tert-Butylbenzene	25.0	27.8		ug/L		111	70 - 130
Tetrachloroethene	25.0	25.7		ug/L		103	70 - 130
Tetrahydrofuran	50.0	58.5		ug/L		117	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: LCS 480-380932/5**

**Matrix: Water**

**Analysis Batch: 380932**

**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	27.3		ug/L		109	70 - 130
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	25.0	27.1		ug/L		108	70 - 130
Trichloroethene	25.0	25.4		ug/L		102	70 - 130
Trichlorofluoromethane	25.0	26.3		ug/L		105	70 - 130
Vinyl chloride	25.0	26.5		ug/L		106	70 - 130
Dibromomethane	25.0	24.0		ug/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	84		70 - 130

**Lab Sample ID: LCSD 480-380932/6**

**Matrix: Water**

**Analysis Batch: 380932**

**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	23.9		ug/L		96	70 - 130	4	20
1,1,1-Trichloroethane	25.0	22.6		ug/L		90	70 - 130	10	20
1,1,1,2,2-Tetrachloroethane	25.0	31.3		ug/L		125	70 - 130	5	20
1,1,2-Trichloroethane	25.0	26.8		ug/L		107	70 - 130	2	20
1,1-Dichloroethane	25.0	24.6		ug/L		99	70 - 130	12	20
1,1-Dichloroethene	25.0	22.8		ug/L		91	70 - 130	9	20
1,1-Dichloropropene	25.0	26.0		ug/L		104	70 - 130	8	20
1,2,3-Trichlorobenzene	25.0	22.9		ug/L		92	70 - 130	3	20
1,2,3-Trichloropropane	25.0	27.9		ug/L		112	70 - 130	2	20
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		89	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	70 - 130	0	20
1,2-Dichlorobenzene	25.0	28.3		ug/L		113	70 - 130	3	20
1,2-Dichloroethane	25.0	22.6		ug/L		90	70 - 130	9	20
1,2-Dichloropropane	25.0	22.8		ug/L		91	70 - 130	11	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	0	20
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130	2	20
1,3-Dichloropropane	25.0	30.2		ug/L		121	70 - 130	2	20
1,4-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130	1	20
1,4-Dioxane	500	543		ug/L		109	70 - 130	8	20
2,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130	6	20
2-Butanone (MEK)	125	215	*	ug/L		172	70 - 130	7	20
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130	2	20
2-Hexanone	125	142		ug/L		114	70 - 130	4	20
4-Chlorotoluene	25.0	29.6		ug/L		118	70 - 130	0	20
4-Isopropyltoluene	25.0	27.9		ug/L		111	70 - 130	3	20
4-Methyl-2-pentanone (MIBK)	125	136		ug/L		109	70 - 130	5	20
Acetone	125	151		ug/L		121	70 - 130	5	20
Benzene	25.0	26.1		ug/L		104	70 - 130	10	20
Bromobenzene	25.0	24.3		ug/L		97	70 - 130	6	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCSD 480-380932/6

Matrix: Water

Analysis Batch: 380932

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	22.8		ug/L		91	70 - 130	9	20
Bromomethane	25.0	22.5		ug/L		90	70 - 130	11	20
Carbon disulfide	25.0	24.6		ug/L		99	70 - 130	12	20
Carbon tetrachloride	25.0	20.7		ug/L		83	70 - 130	12	20
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130	4	20
Chlorobromomethane	25.0	22.8		ug/L		91	70 - 130	3	20
Chlorodibromomethane	25.0	23.3		ug/L		93	70 - 130	1	20
Chloroethane	25.0	25.0		ug/L		100	70 - 130	6	20
Chloroform	25.0	23.8		ug/L		95	70 - 130	9	20
Chloromethane	25.0	24.7		ug/L		99	70 - 130	9	20
cis-1,2-Dichloroethene	25.0	22.4		ug/L		90	70 - 130	14	20
cis-1,3-Dichloropropene	25.0	22.0		ug/L		88	70 - 130	9	20
Dichlorobromomethane	25.0	23.5		ug/L		94	70 - 130	4	20
Dichlorodifluoromethane	25.0	27.5		ug/L		110	70 - 130	2	20
Ethyl ether	25.0	19.9		ug/L		80	70 - 130	13	20
Ethylbenzene	25.0	27.6		ug/L		111	70 - 130	1	20
Ethylene Dibromide	25.0	26.9		ug/L		107	70 - 130	1	20
Hexachlorobutadiene	25.0	24.4		ug/L		98	70 - 130	6	20
Isopropyl ether	25.0	22.7		ug/L		91	70 - 130	8	20
Isopropylbenzene	25.0	28.5		ug/L		114	70 - 130	4	20
Methyl tert-butyl ether	25.0	23.4		ug/L		94	70 - 130	11	20
Methylene Chloride	25.0	21.6		ug/L		86	70 - 130	7	20
m-Xylene & p-Xylene	25.0	25.7		ug/L		103	70 - 130	1	20
Naphthalene	25.0	26.9		ug/L		107	70 - 130	0	20
n-Butylbenzene	25.0	30.4		ug/L		121	70 - 130	4	20
N-Propylbenzene	25.0	30.2		ug/L		121	70 - 130	2	20
o-Xylene	25.0	25.9		ug/L		104	70 - 130	2	20
sec-Butylbenzene	25.0	29.1		ug/L		116	70 - 130	2	20
Styrene	25.0	25.7		ug/L		103	70 - 130	3	20
Tert-amyl methyl ether	25.0	24.2		ug/L		97	70 - 130	6	20
Tert-butyl ethyl ether	25.0	23.1		ug/L		92	70 - 130	8	20
tert-Butylbenzene	25.0	26.9		ug/L		108	70 - 130	3	20
Tetrachloroethene	25.0	26.5		ug/L		106	70 - 130	3	20
Tetrahydrofuran	50.0	56.2		ug/L		112	70 - 130	4	20
Toluene	25.0	27.5		ug/L		110	70 - 130	1	20
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 130	6	20
trans-1,3-Dichloropropene	25.0	27.5		ug/L		110	70 - 130	2	20
Trichloroethene	25.0	22.8		ug/L		91	70 - 130	11	20
Trichlorofluoromethane	25.0	24.2		ug/L		97	70 - 130	8	20
Vinyl chloride	25.0	24.5		ug/L		98	70 - 130	8	20
Dibromomethane	25.0	22.7		ug/L		91	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	88		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: MB 480-381006/7**

**Matrix: Water**

**Analysis Batch: 381006**

**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			10/10/17 11:05	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			10/10/17 11:05	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
1,1-Dichloropropene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,3-Trichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/10/17 11:05	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/17 11:05	1
1,2-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,3-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
1,4-Dioxane	ND		50		ug/L			10/10/17 11:05	1
2,2-Dichloropropane	ND		1.0		ug/L			10/10/17 11:05	1
2-Butanone (MEK)	ND		10		ug/L			10/10/17 11:05	1
2-Chlorotoluene	ND		1.0		ug/L			10/10/17 11:05	1
2-Hexanone	ND		10		ug/L			10/10/17 11:05	1
4-Chlorotoluene	ND		1.0		ug/L			10/10/17 11:05	1
4-Isopropyltoluene	ND		1.0		ug/L			10/10/17 11:05	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			10/10/17 11:05	1
Acetone	ND		50		ug/L			10/10/17 11:05	1
Benzene	ND		1.0		ug/L			10/10/17 11:05	1
Bromobenzene	ND		1.0		ug/L			10/10/17 11:05	1
Bromoform	ND		1.0		ug/L			10/10/17 11:05	1
Bromomethane	ND		2.0		ug/L			10/10/17 11:05	1
Carbon disulfide	ND		10		ug/L			10/10/17 11:05	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/17 11:05	1
Chlorobenzene	ND		1.0		ug/L			10/10/17 11:05	1
Chlorobromomethane	ND		1.0		ug/L			10/10/17 11:05	1
Chlorodibromomethane	ND		0.50		ug/L			10/10/17 11:05	1
Chloroethane	ND		2.0		ug/L			10/10/17 11:05	1
Chloroform	ND		1.0		ug/L			10/10/17 11:05	1
Chloromethane	ND		2.0		ug/L			10/10/17 11:05	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 11:05	1
Dichlorobromomethane	ND		0.50		ug/L			10/10/17 11:05	1
Dichlorodifluoromethane	ND		1.0		ug/L			10/10/17 11:05	1
Ethyl ether	ND		1.0		ug/L			10/10/17 11:05	1
Ethylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Ethylene Dibromide	ND		1.0		ug/L			10/10/17 11:05	1
Hexachlorobutadiene	ND		0.40		ug/L			10/10/17 11:05	1

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: MB 480-381006/7**  
**Matrix: Water**  
**Analysis Batch: 381006**

**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			10/10/17 11:05	1
Isopropylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/17 11:05	1
Methylene Chloride	ND		1.0		ug/L			10/10/17 11:05	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/17 11:05	1
Naphthalene	ND		5.0		ug/L			10/10/17 11:05	1
n-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
N-Propylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
o-Xylene	ND		1.0		ug/L			10/10/17 11:05	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Styrene	ND		1.0		ug/L			10/10/17 11:05	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/17 11:05	1
Tert-butyl ethyl ether	ND		5.0		ug/L			10/10/17 11:05	1
tert-Butylbenzene	ND		1.0		ug/L			10/10/17 11:05	1
Tetrachloroethene	ND		1.0		ug/L			10/10/17 11:05	1
Tetrahydrofuran	ND		10		ug/L			10/10/17 11:05	1
Toluene	ND		1.0		ug/L			10/10/17 11:05	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			10/10/17 11:05	1
Trichloroethene	ND		1.0		ug/L			10/10/17 11:05	1
Trichlorofluoromethane	ND		1.0		ug/L			10/10/17 11:05	1
Vinyl chloride	ND		1.0		ug/L			10/10/17 11:05	1
Dibromomethane	ND		1.0		ug/L			10/10/17 11:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		10/10/17 11:05	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 130		10/10/17 11:05	1
4-Bromofluorobenzene (Surr)	83		70 - 130		10/10/17 11:05	1

**Lab Sample ID: LCS 480-381006/4**  
**Matrix: Water**  
**Analysis Batch: 381006**

**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	24.1		ug/L		96	70 - 130
1,1,1-Trichloroethane	25.0	23.2		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.6		ug/L		118	70 - 130
1,1,2-Trichloroethane	25.0	26.9		ug/L		107	70 - 130
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130
1,1-Dichloroethene	25.0	24.1		ug/L		96	70 - 130
1,1-Dichloropropene	25.0	27.6		ug/L		111	70 - 130
1,2,3-Trichlorobenzene	25.0	21.5		ug/L		86	70 - 130
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	70 - 130
1,2,4-Trichlorobenzene	25.0	21.0		ug/L		84	70 - 130
1,2,4-Trimethylbenzene	25.0	27.4		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	70 - 130
1,2-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
1,2-Dichloroethane	25.0	24.0		ug/L		96	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCS 480-381006/4

Matrix: Water

Analysis Batch: 381006

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	25.0	24.3		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 130
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	25.0	29.5		ug/L		118	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dioxane	500	498		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	25.7		ug/L		103	70 - 130
2-Butanone (MEK)	125	218	*	ug/L		174	70 - 130
2-Chlorotoluene	25.0	27.2		ug/L		109	70 - 130
2-Hexanone	125	134		ug/L		107	70 - 130
4-Chlorotoluene	25.0	27.9		ug/L		112	70 - 130
4-Isopropyltoluene	25.0	27.3		ug/L		109	70 - 130
4-Methyl-2-pentanone (MIBK)	125	132		ug/L		105	70 - 130
Acetone	125	154		ug/L		123	70 - 130
Benzene	25.0	26.6		ug/L		106	70 - 130
Bromobenzene	25.0	23.4		ug/L		94	70 - 130
Bromoform	25.0	22.0		ug/L		88	70 - 130
Bromomethane	25.0	20.1		ug/L		80	70 - 130
Carbon disulfide	25.0	27.4		ug/L		109	70 - 130
Carbon tetrachloride	25.0	21.8		ug/L		87	70 - 130
Chlorobenzene	25.0	26.5		ug/L		106	70 - 130
Chlorobromomethane	25.0	22.8		ug/L		91	70 - 130
Chlorodibromomethane	25.0	22.4		ug/L		90	70 - 130
Chloroethane	25.0	23.8		ug/L		95	70 - 130
Chloroform	25.0	23.8		ug/L		95	70 - 130
Chloromethane	25.0	24.1		ug/L		96	70 - 130
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	70 - 130
cis-1,3-Dichloropropene	25.0	22.3		ug/L		89	70 - 130
Dichlorobromomethane	25.0	23.3		ug/L		93	70 - 130
Dichlorodifluoromethane	25.0	29.0		ug/L		116	70 - 130
Ethyl ether	25.0	21.9		ug/L		88	70 - 130
Ethylbenzene	25.0	27.1		ug/L		108	70 - 130
Ethylene Dibromide	25.0	27.2		ug/L		109	70 - 130
Hexachlorobutadiene	25.0	23.1		ug/L		92	70 - 130
Isopropyl ether	25.0	23.5		ug/L		94	70 - 130
Isopropylbenzene	25.0	28.4		ug/L		114	70 - 130
Methyl tert-butyl ether	25.0	24.7		ug/L		99	70 - 130
Methylene Chloride	25.0	21.6		ug/L		86	70 - 130
m-Xylene & p-Xylene	25.0	25.3		ug/L		101	70 - 130
Naphthalene	25.0	25.6		ug/L		102	70 - 130
n-Butylbenzene	25.0	30.0		ug/L		120	70 - 130
N-Propylbenzene	25.0	28.7		ug/L		115	70 - 130
o-Xylene	25.0	25.6		ug/L		102	70 - 130
sec-Butylbenzene	25.0	28.3		ug/L		113	70 - 130
Styrene	25.0	25.5		ug/L		102	70 - 130
Tert-amyl methyl ether	25.0	24.6		ug/L		98	70 - 130
Tert-butyl ethyl ether	25.0	23.5		ug/L		94	70 - 130
tert-Butylbenzene	25.0	25.3		ug/L		101	70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: LCS 480-381006/4**  
**Matrix: Water**  
**Analysis Batch: 381006**

**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	27.8		ug/L		111	70 - 130
Tetrahydrofuran	50.0	55.6		ug/L		111	70 - 130
Toluene	25.0	27.7		ug/L		111	70 - 130
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 130
Trichloroethene	25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	24.1		ug/L		96	70 - 130
Vinyl chloride	25.0	23.3		ug/L		93	70 - 130
Dibromomethane	25.0	23.0		ug/L		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		70 - 130
1,2-Dichloroethane-d4 (Surr)	92		70 - 130
4-Bromofluorobenzene (Surr)	84		70 - 130

**Lab Sample ID: LCSD 480-381006/5**  
**Matrix: Water**  
**Analysis Batch: 381006**

**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	22.6		ug/L		91	70 - 130	6	20
1,1,1-Trichloroethane	25.0	24.4		ug/L		97	70 - 130	5	20
1,1,1,2,2-Tetrachloroethane	25.0	30.3		ug/L		121	70 - 130	2	20
1,1,1,2-Trichloroethane	25.0	28.4		ug/L		114	70 - 130	6	20
1,1-Dichloroethane	25.0	26.5		ug/L		106	70 - 130	4	20
1,1-Dichloroethene	25.0	25.5		ug/L		102	70 - 130	6	20
1,1-Dichloropropene	25.0	27.1		ug/L		109	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	22.7		ug/L		91	70 - 130	6	20
1,2,3-Trichloropropane	25.0	26.5		ug/L		106	70 - 130	4	20
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		89	70 - 130	6	20
1,2,4-Trimethylbenzene	25.0	28.9		ug/L		116	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	70 - 130	4	20
1,2-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130	1	20
1,2-Dichloroethane	25.0	23.5		ug/L		94	70 - 130	2	20
1,2-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	28.3		ug/L		113	70 - 130	5	20
1,3-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130	5	20
1,3-Dichloropropane	25.0	28.8		ug/L		115	70 - 130	2	20
1,4-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	4	20
1,4-Dioxane	500	508		ug/L		102	70 - 130	2	20
2,2-Dichloropropane	25.0	25.9		ug/L		104	70 - 130	1	20
2-Butanone (MEK)	125	218	*	ug/L		174	70 - 130	0	20
2-Chlorotoluene	25.0	27.6		ug/L		111	70 - 130	1	20
2-Hexanone	125	135		ug/L		108	70 - 130	1	20
4-Chlorotoluene	25.0	29.6		ug/L		118	70 - 130	6	20
4-Isopropyltoluene	25.0	29.2		ug/L		117	70 - 130	7	20
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130	1	20
Acetone	125	145		ug/L		116	70 - 130	6	20

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

Lab Sample ID: LCSD 480-381006/5

Matrix: Water

Analysis Batch: 381006

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	25.0	27.4		ug/L		109	70 - 130	3	20
Bromobenzene	25.0	24.3		ug/L		97	70 - 130	3	20
Bromoform	25.0	20.5		ug/L		82	70 - 130	7	20
Bromomethane	25.0	21.7		ug/L		87	70 - 130	8	20
Carbon disulfide	25.0	28.4		ug/L		114	70 - 130	4	20
Carbon tetrachloride	25.0	22.9		ug/L		92	70 - 130	5	20
Chlorobenzene	25.0	26.7		ug/L		107	70 - 130	1	20
Chlorobromomethane	25.0	21.6		ug/L		86	70 - 130	5	20
Chlorodibromomethane	25.0	22.5		ug/L		90	70 - 130	0	20
Chloroethane	25.0	24.0		ug/L		96	70 - 130	1	20
Chloroform	25.0	24.5		ug/L		98	70 - 130	3	20
Chloromethane	25.0	25.4		ug/L		102	70 - 130	5	20
cis-1,2-Dichloroethene	25.0	25.5		ug/L		102	70 - 130	8	20
cis-1,3-Dichloropropene	25.0	23.6		ug/L		94	70 - 130	6	20
Dichlorobromomethane	25.0	23.8		ug/L		95	70 - 130	2	20
Dichlorodifluoromethane	25.0	31.2		ug/L		125	70 - 130	7	20
Ethyl ether	25.0	22.1		ug/L		88	70 - 130	1	20
Ethylbenzene	25.0	28.1		ug/L		112	70 - 130	4	20
Ethylene Dibromide	25.0	25.8		ug/L		103	70 - 130	5	20
Hexachlorobutadiene	25.0	26.1		ug/L		104	70 - 130	12	20
Isopropyl ether	25.0	23.5		ug/L		94	70 - 130	0	20
Isopropylbenzene	25.0	30.1		ug/L		121	70 - 130	6	20
Methyl tert-butyl ether	25.0	24.9		ug/L		100	70 - 130	1	20
Methylene Chloride	25.0	22.2		ug/L		89	70 - 130	3	20
m-Xylene & p-Xylene	25.0	25.7		ug/L		103	70 - 130	2	20
Naphthalene	25.0	27.2		ug/L		109	70 - 130	6	20
n-Butylbenzene	25.0	32.1		ug/L		128	70 - 130	7	20
N-Propylbenzene	25.0	31.1		ug/L		124	70 - 130	8	20
o-Xylene	25.0	25.6		ug/L		102	70 - 130	0	20
sec-Butylbenzene	25.0	30.2		ug/L		121	70 - 130	7	20
Styrene	25.0	26.2		ug/L		105	70 - 130	3	20
Tert-amyl methyl ether	25.0	25.2		ug/L		101	70 - 130	3	20
Tert-butyl ethyl ether	25.0	23.7		ug/L		95	70 - 130	1	20
tert-Butylbenzene	25.0	27.5		ug/L		110	70 - 130	8	20
Tetrachloroethene	25.0	28.0		ug/L		112	70 - 130	1	20
Tetrahydrofuran	50.0	57.0		ug/L		114	70 - 130	3	20
Toluene	25.0	27.2		ug/L		109	70 - 130	2	20
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130	4	20
trans-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 130	3	20
Trichloroethene	25.0	24.3		ug/L		97	70 - 130	0	20
Trichlorofluoromethane	25.0	25.8		ug/L		103	70 - 130	7	20
Vinyl chloride	25.0	25.3		ug/L		101	70 - 130	8	20
Dibromomethane	25.0	23.0		ug/L		92	70 - 130	0	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	83		70 - 130

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: 522 - 1,4 Dioxane (GC/MS SIM)

**Lab Sample ID: MB 200-121935/1-A**  
**Matrix: Water**  
**Analysis Batch: 121975**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 121935**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20		ug/L		10/09/17 19:17	10/10/17 19:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	74		46 - 130				10/09/17 19:17	10/10/17 19:11	1

**Lab Sample ID: LCS 200-121935/2-A**  
**Matrix: Water**  
**Analysis Batch: 121975**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 121935**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
1,4-Dioxane	0.200	0.233		ug/L		117	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1,4-Dioxane-d8 (Surr)	90		46 - 130						

## Method: 6010 - Metals (ICP)

**Lab Sample ID: MB 480-380098/1-A**  
**Matrix: Water**  
**Analysis Batch: 380329**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 380098**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		10/04/17 09:15	10/04/17 23:24	1

**Lab Sample ID: LCS 480-380098/2-A**  
**Matrix: Water**  
**Analysis Batch: 380329**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 380098**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
Iron	10.0	9.85		mg/L		98	80 - 120		

**Lab Sample ID: LCSD 480-380098/3-A**  
**Matrix: Water**  
**Analysis Batch: 380329**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 380098**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Iron	10.0	9.83		mg/L		98	80 - 120	0	20

**Lab Sample ID: 480-125214-9 MS**  
**Matrix: Water**  
**Analysis Batch: 380329**

**Client Sample ID: MW-562-20171003**  
**Prep Type: Total/NA**  
**Prep Batch: 380098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Iron	260	^	10.0	279	4	mg/L		151	75 - 125

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: 6010 - Metals (ICP) (Continued)

Lab Sample ID: 480-125214-9 MSD

Matrix: Water

Analysis Batch: 380329

Client Sample ID: MW-562-20171003

Prep Type: Total/NA

Prep Batch: 380098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Iron	260	^	10.0	268	4	mg/L		41	75 - 125	4	20

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 480-380430/28

Matrix: Water

Analysis Batch: 380430

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			10/06/17 13:07	1
Sulfate	ND		2.0		mg/L			10/06/17 13:07	1

Lab Sample ID: MB 480-380430/4

Matrix: Water

Analysis Batch: 380430

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			10/06/17 09:52	1
Sulfate	ND		2.0		mg/L			10/06/17 09:52	1

Lab Sample ID: LCS 480-380430/27

Matrix: Water

Analysis Batch: 380430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Sulfate	50.0	52.0		mg/L		104	90 - 110

Lab Sample ID: LCS 480-380430/3

Matrix: Water

Analysis Batch: 380430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.6		mg/L		103	90 - 110
Sulfate	50.0	52.9		mg/L		106	90 - 110

Lab Sample ID: 480-125214-7 MS

Matrix: Water

Analysis Batch: 380430

Client Sample ID: MW-560-20171003

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30	F1	200	131	F1	mg/L		51	81 - 120
Sulfate	4.8	F1	200	109	F1	mg/L		52	80 - 120

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 480-125214-9 MS**

**Matrix: Water**

**Analysis Batch: 380430**

**Client Sample ID: MW-562-20171003**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	14		500	547	E	mg/L		107	81 - 120
Sulfate	ND		500	564	E	mg/L		113	80 - 120

**Lab Sample ID: MB 480-380519/4**

**Matrix: Water**

**Analysis Batch: 380519**

**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			10/06/17 11:46	1
Sulfate	ND		2.0		mg/L			10/06/17 11:46	1

**Lab Sample ID: LCS 480-380519/3**

**Matrix: Water**

**Analysis Batch: 380519**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.5		mg/L		99	90 - 110
Sulfate	50.0	48.5		mg/L		97	90 - 110

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 480-380254/2-A**

**Matrix: Water**

**Analysis Batch: 380385**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 380254**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/04/17 18:10	10/05/17 11:21	1

**Lab Sample ID: LCS 480-380254/1-A**

**Matrix: Water**

**Analysis Batch: 380385**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 380254**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	1.00	1.08		mg/L		108	90 - 110

**Lab Sample ID: MB 480-380879/2-A**

**Matrix: Water**

**Analysis Batch: 380900**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 380879**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		10/09/17 14:20	10/09/17 14:46	1

**Lab Sample ID: LCS 480-380879/1-A**

**Matrix: Water**

**Analysis Batch: 380900**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 380879**

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

TestAmerica Buffalo



# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: 9040C - pH

Lab Sample ID: 480-125214-12 DU

Matrix: Water

Analysis Batch: 380259

Client Sample ID: REW-7-20171003

Prep Type: Total/NA

Analyte	Sample		DU		Unit	D	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier					
pH	7.3	HF	7.3		SU			0.5	5
Temperature	22.0	HF	22.1		Degrees C			0.4	10

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

Lab Sample ID: MB 480-380348/28

Matrix: Water

Analysis Batch: 380348

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
TOC Result 1	ND		1.0		mg/L			10/05/17 04:40	1
TOC Result 2	ND		1.0		mg/L			10/05/17 04:40	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/05/17 04:40	1

Lab Sample ID: MB 480-380348/4

Matrix: Water

Analysis Batch: 380348

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
TOC Result 1	ND		1.0		mg/L			10/04/17 18:03	1
TOC Result 2	ND		1.0		mg/L			10/04/17 18:03	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/04/17 18:03	1

Lab Sample ID: LCS 480-380348/29

Matrix: Water

Analysis Batch: 380348

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 2	60.0	57.9		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	57.2		mg/L		95	90 - 110

Lab Sample ID: LCS 480-380348/5

Matrix: Water

Analysis Batch: 380348

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 2	60.0	57.6		mg/L		96	90 - 110
Total Organic Carbon - Duplicates	60.0	57.4		mg/L		96	90 - 110

Lab Sample ID: MB 480-380726/4

Matrix: Water

Analysis Batch: 380726

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
TOC Result 1	ND		1.0		mg/L			10/05/17 19:31	1

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

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

**Lab Sample ID: MB 480-380726/4**  
**Matrix: Water**  
**Analysis Batch: 380726**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 2	ND		1.0		mg/L			10/05/17 19:31	1
Total Organic Carbon - Duplicates	ND		1.0		mg/L			10/05/17 19:31	1

**Lab Sample ID: LCS 480-380726/5**  
**Matrix: Water**  
**Analysis Batch: 380726**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	60.0	57.7		mg/L		96	90 - 110
TOC Result 2	60.0	58.3		mg/L		97	90 - 110
Total Organic Carbon - Duplicates	60.0	58.0		mg/L		97	90 - 110

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 480-380338/30**  
**Matrix: Water**  
**Analysis Batch: 380338**

**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			10/04/17 23:38	1

**Lab Sample ID: MB 480-380338/7**  
**Matrix: Water**  
**Analysis Batch: 380338**

**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			10/04/17 21:02	1

**Lab Sample ID: LCS 480-380338/31**  
**Matrix: Water**  
**Analysis Batch: 380338**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	100	95.5		mg/L		96	90 - 110

**Lab Sample ID: LCS 480-380338/8**  
**Matrix: Water**  
**Analysis Batch: 380338**

**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	94.6		mg/L		95	90 - 110

**Lab Sample ID: 480-125214-14 MS**  
**Matrix: Water**  
**Analysis Batch: 380338**

**Client Sample ID: REW-12-20171003**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity, Total	430		100	471	4	mg/L		45	60 - 140

TestAmerica Buffalo

# QC Sample Results

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

TestAmerica Job ID: 480-125214-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 480-125214-13 DU  
Matrix: Water  
Analysis Batch: 380338

Client Sample ID: REW-11-20171003  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity, Total	730		724		mg/L		0.9	20

## Method: SM 4500 P E - Orthophosphate

Lab Sample ID: MB 480-380266/3  
Matrix: Water  
Analysis Batch: 380266

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			10/04/17 19:50	1

Lab Sample ID: LCS 480-380266/4  
Matrix: Water  
Analysis Batch: 380266

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	0.206		mg/L		103	90 - 110

Lab Sample ID: 480-125214-12 MS  
Matrix: Water  
Analysis Batch: 380266

Client Sample ID: REW-7-20171003  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.082		0.500	0.562		mg/L		96	49 - 138

Lab Sample ID: 480-125214-12 MSD  
Matrix: Water  
Analysis Batch: 380266

Client Sample ID: REW-7-20171003  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.082		0.500	0.551		mg/L		94	49 - 138	2	20

# QC Association Summary

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

TestAmerica Job ID: 480-125214-1

## GC/MS VOA

### Analysis Batch: 380799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-1	DEP-21-20171002	Total/NA	Water	8260C	
480-125214-2	MW-264M-20171002	Total/NA	Water	8260C	
480-125214-3	MW-266MA-20171002	Total/NA	Water	8260C	
480-125214-4	MW-266MB-20171002	Total/NA	Water	8260C	
480-125214-5	MW-267M-20171002	Total/NA	Water	8260C	
MB 480-380799/8	Method Blank	Total/NA	Water	8260C	
LCS 480-380799/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-380799/6	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 380932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-6	MW-269MA-20171002	Total/NA	Water	8260C	
480-125214-7	MW-560-20171003	Total/NA	Water	8260C	
480-125214-8	MW-561-20171003	Total/NA	Water	8260C	
480-125214-9	MW-562-20171003	Total/NA	Water	8260C	
480-125214-10	MW-563-20171003	Total/NA	Water	8260C	
480-125214-11	REW-6-20171003	Total/NA	Water	8260C	
480-125214-12	REW-7-20171003	Total/NA	Water	8260C	
480-125214-13	REW-11-20171003	Total/NA	Water	8260C	
480-125214-14	REW-12-20171003	Total/NA	Water	8260C	
480-125214-16	TRIP BLANKS	Total/NA	Water	8260C	
MB 480-380932/8	Method Blank	Total/NA	Water	8260C	
LCS 480-380932/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-380932/6	Lab Control Sample Dup	Total/NA	Water	8260C	

### Analysis Batch: 381006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-15	DUP1-20171003	Total/NA	Water	8260C	
MB 480-381006/7	Method Blank	Total/NA	Water	8260C	
LCS 480-381006/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-381006/5	Lab Control Sample Dup	Total/NA	Water	8260C	

## GC/MS Semi VOA

### Prep Batch: 121935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-3	MW-266MA-20171002	Total/NA	Water	3535A	
480-125214-5	MW-267M-20171002	Total/NA	Water	3535A	
480-125214-6	MW-269MA-20171002	Total/NA	Water	3535A	
MB 200-121935/1-A	Method Blank	Total/NA	Water	3535A	
LCS 200-121935/2-A	Lab Control Sample	Total/NA	Water	3535A	

### Analysis Batch: 121975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-3	MW-266MA-20171002	Total/NA	Water	522	121935
480-125214-5	MW-267M-20171002	Total/NA	Water	522	121935
480-125214-6	MW-269MA-20171002	Total/NA	Water	522	121935
MB 200-121935/1-A	Method Blank	Total/NA	Water	522	121935
LCS 200-121935/2-A	Lab Control Sample	Total/NA	Water	522	121935

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-125214-1

## Metals

### Prep Batch: 380098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	3005A	
480-125214-8	MW-561-20171003	Total/NA	Water	3005A	
480-125214-9	MW-562-20171003	Total/NA	Water	3005A	
480-125214-10	MW-563-20171003	Total/NA	Water	3005A	
480-125214-11	REW-6-20171003	Total/NA	Water	3005A	
480-125214-12	REW-7-20171003	Total/NA	Water	3005A	
480-125214-13	REW-11-20171003	Total/NA	Water	3005A	
480-125214-14	REW-12-20171003	Total/NA	Water	3005A	
MB 480-380098/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-380098/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-380098/3-A	Lab Control Sample Dup	Total/NA	Water	3005A	
480-125214-9 MS	MW-562-20171003	Total/NA	Water	3005A	
480-125214-9 MSD	MW-562-20171003	Total/NA	Water	3005A	

### Analysis Batch: 380329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	6010	380098
480-125214-8	MW-561-20171003	Total/NA	Water	6010	380098
480-125214-9	MW-562-20171003	Total/NA	Water	6010	380098
480-125214-10	MW-563-20171003	Total/NA	Water	6010	380098
480-125214-11	REW-6-20171003	Total/NA	Water	6010	380098
480-125214-12	REW-7-20171003	Total/NA	Water	6010	380098
480-125214-13	REW-11-20171003	Total/NA	Water	6010	380098
480-125214-14	REW-12-20171003	Total/NA	Water	6010	380098
MB 480-380098/1-A	Method Blank	Total/NA	Water	6010	380098
LCS 480-380098/2-A	Lab Control Sample	Total/NA	Water	6010	380098
LCSD 480-380098/3-A	Lab Control Sample Dup	Total/NA	Water	6010	380098
480-125214-9 MS	MW-562-20171003	Total/NA	Water	6010	380098
480-125214-9 MSD	MW-562-20171003	Total/NA	Water	6010	380098

## General Chemistry

### Analysis Batch: 380251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	353.2	
480-125214-10	MW-563-20171003	Total/NA	Water	353.2	
480-125214-12	REW-7-20171003	Total/NA	Water	353.2	

### Prep Batch: 380254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-8	MW-561-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-9	MW-562-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-10	MW-563-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-11	REW-6-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-12	REW-7-20171003	Total/NA	Water	Distill/Ammonia	
480-125214-14	REW-12-20171003	Total/NA	Water	Distill/Ammonia	
MB 480-380254/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-380254/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-125214-1

## General Chemistry (Continued)

### Analysis Batch: 380259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	9040C	
480-125214-8	MW-561-20171003	Total/NA	Water	9040C	
480-125214-9	MW-562-20171003	Total/NA	Water	9040C	
480-125214-10	MW-563-20171003	Total/NA	Water	9040C	
480-125214-11	REW-6-20171003	Total/NA	Water	9040C	
480-125214-12	REW-7-20171003	Total/NA	Water	9040C	
480-125214-13	REW-11-20171003	Total/NA	Water	9040C	
480-125214-14	REW-12-20171003	Total/NA	Water	9040C	
LCS 480-380259/1	Lab Control Sample	Total/NA	Water	9040C	
LCS 480-380259/23	Lab Control Sample	Total/NA	Water	9040C	
480-125214-12 DU	REW-7-20171003	Total/NA	Water	9040C	

### Analysis Batch: 380265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-8	MW-561-20171003	Total/NA	Water	353.2	
480-125214-9	MW-562-20171003	Total/NA	Water	353.2	
480-125214-11	REW-6-20171003	Total/NA	Water	353.2	
480-125214-13	REW-11-20171003	Total/NA	Water	353.2	
480-125214-14	REW-12-20171003	Total/NA	Water	353.2	

### Analysis Batch: 380266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	SM 4500 P E	
480-125214-7	MW-560-20171003	Total/NA	Water	SM 4500 P E	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 4500 P E	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 4500 P E	
480-125214-9	MW-562-20171003	Total/NA	Water	SM 4500 P E	
480-125214-10	MW-563-20171003	Total/NA	Water	SM 4500 P E	
480-125214-11	REW-6-20171003	Total/NA	Water	SM 4500 P E	
480-125214-12	REW-7-20171003	Total/NA	Water	SM 4500 P E	
480-125214-13	REW-11-20171003	Total/NA	Water	SM 4500 P E	
480-125214-14	REW-12-20171003	Total/NA	Water	SM 4500 P E	
MB 480-380266/3	Method Blank	Total/NA	Water	SM 4500 P E	
LCS 480-380266/4	Lab Control Sample	Total/NA	Water	SM 4500 P E	
480-125214-12 MS	REW-7-20171003	Total/NA	Water	SM 4500 P E	
480-125214-12 MSD	REW-7-20171003	Total/NA	Water	SM 4500 P E	

### Analysis Batch: 380338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	SM 2320B	
480-125214-8	MW-561-20171003	Total/NA	Water	SM 2320B	
480-125214-9	MW-562-20171003	Total/NA	Water	SM 2320B	
480-125214-10	MW-563-20171003	Total/NA	Water	SM 2320B	
480-125214-11	REW-6-20171003	Total/NA	Water	SM 2320B	
480-125214-12	REW-7-20171003	Total/NA	Water	SM 2320B	
480-125214-13	REW-11-20171003	Total/NA	Water	SM 2320B	
480-125214-14	REW-12-20171003	Total/NA	Water	SM 2320B	
MB 480-380338/30	Method Blank	Total/NA	Water	SM 2320B	
MB 480-380338/7	Method Blank	Total/NA	Water	SM 2320B	
LCS 480-380338/31	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 480-380338/8	Lab Control Sample	Total/NA	Water	SM 2320B	

TestAmerica Buffalo

# QC Association Summary

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

TestAmerica Job ID: 480-125214-1

## General Chemistry (Continued)

### Analysis Batch: 380338 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-14 MS	REW-12-20171003	Total/NA	Water	SM 2320B	
480-125214-13 DU	REW-11-20171003	Total/NA	Water	SM 2320B	

### Analysis Batch: 380348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	9060A	
480-125214-8	MW-561-20171003	Total/NA	Water	9060A	
480-125214-10	MW-563-20171003	Total/NA	Water	9060A	
480-125214-11	REW-6-20171003	Total/NA	Water	9060A	
480-125214-12	REW-7-20171003	Total/NA	Water	9060A	
MB 480-380348/28	Method Blank	Total/NA	Water	9060A	
MB 480-380348/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380348/29	Lab Control Sample	Total/NA	Water	9060A	
LCS 480-380348/5	Lab Control Sample	Total/NA	Water	9060A	

### Analysis Batch: 380385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	350.1	380254
480-125214-8	MW-561-20171003	Total/NA	Water	350.1	380254
480-125214-9	MW-562-20171003	Total/NA	Water	350.1	380254
480-125214-10	MW-563-20171003	Total/NA	Water	350.1	380254
480-125214-11	REW-6-20171003	Total/NA	Water	350.1	380254
480-125214-12	REW-7-20171003	Total/NA	Water	350.1	380254
480-125214-14	REW-12-20171003	Total/NA	Water	350.1	380254
MB 480-380254/2-A	Method Blank	Total/NA	Water	350.1	380254
LCS 480-380254/1-A	Lab Control Sample	Total/NA	Water	350.1	380254

### Analysis Batch: 380430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-7	MW-560-20171003	Total/NA	Water	300.0	
480-125214-8	MW-561-20171003	Total/NA	Water	300.0	
480-125214-9	MW-562-20171003	Total/NA	Water	300.0	
480-125214-10	MW-563-20171003	Total/NA	Water	300.0	
MB 480-380430/28	Method Blank	Total/NA	Water	300.0	
MB 480-380430/4	Method Blank	Total/NA	Water	300.0	
LCS 480-380430/27	Lab Control Sample	Total/NA	Water	300.0	
LCS 480-380430/3	Lab Control Sample	Total/NA	Water	300.0	
480-125214-7 MS	MW-560-20171003	Total/NA	Water	300.0	
480-125214-9 MS	MW-562-20171003	Total/NA	Water	300.0	

### Analysis Batch: 380519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-11	REW-6-20171003	Total/NA	Water	300.0	
480-125214-12	REW-7-20171003	Total/NA	Water	300.0	
480-125214-13	REW-11-20171003	Total/NA	Water	300.0	
480-125214-14	REW-12-20171003	Total/NA	Water	300.0	
MB 480-380519/4	Method Blank	Total/NA	Water	300.0	
LCS 480-380519/3	Lab Control Sample	Total/NA	Water	300.0	

TestAmerica Buffalo



# QC Association Summary

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

TestAmerica Job ID: 480-125214-1

## General Chemistry (Continued)

### Analysis Batch: 380726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-9	MW-562-20171003	Total/NA	Water	9060A	
480-125214-13	REW-11-20171003	Total/NA	Water	9060A	
480-125214-14	REW-12-20171003	Total/NA	Water	9060A	
MB 480-380726/4	Method Blank	Total/NA	Water	9060A	
LCS 480-380726/5	Lab Control Sample	Total/NA	Water	9060A	

### Prep Batch: 380879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-13	REW-11-20171003	Total/NA	Water	Distill/Ammonia	
MB 480-380879/2-A	Method Blank	Total/NA	Water	Distill/Ammonia	
LCS 480-380879/1-A	Lab Control Sample	Total/NA	Water	Distill/Ammonia	

### Analysis Batch: 380900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-380879/2-A	Method Blank	Total/NA	Water	350.1	380879
LCS 480-380879/1-A	Lab Control Sample	Total/NA	Water	350.1	380879

### Analysis Batch: 380901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-125214-13	REW-11-20171003	Total/NA	Water	350.1	380879

# Lab Chronicle

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

TestAmerica Job ID: 480-125214-1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

**Client Sample ID: MW-266MA-20171002**

**Lab Sample ID: 480-125214-3**

Date Collected: 10/02/17 10:05

Matrix: Water

Date Received: 10/04/17 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380799	10/09/17 16:44	KMN	TAL BUF
Total/NA	Prep	3535A			121935	10/09/17 19:17	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/10/17 23:52	K1P	TAL BUR

**Client Sample ID: MW-266MB-20171002**

**Lab Sample ID: 480-125214-4**

Date Collected: 10/02/17 10:40

Matrix: Water

Date Received: 10/04/17 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380799	10/09/17 17:08	KMN	TAL BUF

**Client Sample ID: MW-267M-20171002**

**Lab Sample ID: 480-125214-5**

Date Collected: 10/02/17 09:30

Matrix: Water

Date Received: 10/04/17 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380799	10/09/17 20:16	KMN	TAL BUF
Total/NA	Prep	3535A			121935	10/09/17 19:17	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/11/17 00:05	K1P	TAL BUR

**Client Sample ID: MW-269MA-20171002**

**Lab Sample ID: 480-125214-6**

Date Collected: 10/02/17 12:30

Matrix: Water

Date Received: 10/04/17 02:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 00:09	RRS	TAL BUF
Total/NA	Prep	3535A			121935	10/09/17 19:17	MRL	TAL BUR
Total/NA	Analysis	522		1	121975	10/11/17 00:32	K1P	TAL BUR

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# Lab Chronicle

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-560-20171003**

**Lab Sample ID: 480-125214-7**

**Date Collected: 10/03/17 10:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 00:32	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/04/17 23:45	LMH	TAL BUF
Total/NA	Analysis	300.0		2	380430	10/06/17 15:46	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380385	10/05/17 11:41	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380251	10/04/17 15:23	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 17:58	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	380348	10/04/17 20:43	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 22:35	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		5	380266	10/04/17 19:50	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 21:37	ALZ	TAL BUF

**Client Sample ID: MW-561-20171003**

**Lab Sample ID: 480-125214-8**

**Date Collected: 10/03/17 09:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 00:56	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/04/17 23:48	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380430	10/06/17 12:18	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380385	10/05/17 11:42	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380265	10/04/17 19:30	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 17:44	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	380348	10/04/17 21:09	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 22:47	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		5	380266	10/04/17 19:50	ALZ	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 21:37	ALZ	TAL BUF

**Client Sample ID: MW-562-20171003**

**Lab Sample ID: 480-125214-9**

**Date Collected: 10/03/17 08:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	380932	10/10/17 01:19	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/04/17 23:52	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380430	10/06/17 12:26	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: MW-562-20171003**

**Lab Sample ID: 480-125214-9**

**Date Collected: 10/03/17 08:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	380385	10/05/17 11:43	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380265	10/04/17 19:31	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 18:01	ALZ	TAL BUF
Total/NA	Analysis	9060A		10	380726	10/05/17 20:24	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 22:56	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		5	380266	10/04/17 19:50	ALZ	TAL BUF

**Client Sample ID: MW-563-20171003**

**Lab Sample ID: 480-125214-10**

**Date Collected: 10/03/17 10:53**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 01:43	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/05/17 00:10	LMH	TAL BUF
Total/NA	Analysis	300.0		1	380430	10/06/17 13:15	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380385	10/05/17 11:44	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380251	10/04/17 15:26	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 17:47	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	380348	10/04/17 22:03	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 23:02	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 19:50	ALZ	TAL BUF

**Client Sample ID: REW-6-20171003**

**Lab Sample ID: 480-125214-11**

**Date Collected: 10/03/17 12:55**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	380932	10/10/17 02:06	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/05/17 00:24	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380519	10/06/17 15:28	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380385	10/05/17 11:50	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380265	10/04/17 19:36	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 18:04	ALZ	TAL BUF
Total/NA	Analysis	9060A		80	380348	10/04/17 23:22	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 23:12	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 19:50	ALZ	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-7-20171003**

**Lab Sample ID: 480-125214-12**

**Date Collected: 10/03/17 12:15**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 02:30	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/05/17 00:28	LMH	TAL BUF
Total/NA	Analysis	300.0		1	380519	10/06/17 15:43	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		2	380385	10/05/17 12:12	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380251	10/04/17 15:29	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 17:53	ALZ	TAL BUF
Total/NA	Analysis	9060A		1	380348	10/04/17 23:48	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 23:18	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 19:50	ALZ	TAL BUF

**Client Sample ID: REW-11-20171003**

**Lab Sample ID: 480-125214-13**

**Date Collected: 10/03/17 13:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 02:53	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/05/17 00:32	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380519	10/06/17 15:57	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380879	10/09/17 14:20	KRT	TAL BUF
Total/NA	Analysis	350.1		1	380901	10/09/17 15:10	KRT	TAL BUF
Total/NA	Analysis	353.2		1	380265	10/04/17 19:37	LED	TAL BUF
Total/NA	Analysis	9040C		1	380259	10/04/17 18:06	ALZ	TAL BUF
Total/NA	Analysis	9060A		40	380726	10/05/17 20:51	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/04/17 23:56	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 19:50	ALZ	TAL BUF

**Client Sample ID: REW-12-20171003**

**Lab Sample ID: 480-125214-14**

**Date Collected: 10/03/17 11:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	380932	10/10/17 03:17	RRS	TAL BUF
Total/NA	Prep	3005A			380098	10/04/17 09:15	EMB	TAL BUF
Total/NA	Analysis	6010		1	380329	10/05/17 00:35	LMH	TAL BUF
Total/NA	Analysis	300.0		5	380519	10/06/17 16:12	RJS	TAL BUF
Total/NA	Prep	Distill/Ammonia			380254	10/04/17 18:10	SSS	TAL BUF
Total/NA	Analysis	350.1		1	380385	10/05/17 11:53	SSS	TAL BUF
Total/NA	Analysis	353.2		1	380265	10/04/17 19:38	LED	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

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

TestAmerica Job ID: 480-125214-1

**Client Sample ID: REW-12-20171003**

**Lab Sample ID: 480-125214-14**

**Date Collected: 10/03/17 11:30**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9040C		1	380259	10/04/17 18:09	ALZ	TAL BUF
Total/NA	Analysis	9060A		10	380726	10/05/17 21:17	EKB	TAL BUF
Total/NA	Analysis	SM 2320B		1	380338	10/05/17 00:13	DSC	TAL BUF
Total/NA	Analysis	SM 4500 P E		1	380266	10/04/17 19:50	ALZ	TAL BUF

**Client Sample ID: DUP1-20171003**

**Lab Sample ID: 480-125214-15**

**Date Collected: 10/03/17 00:00**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	381006	10/10/17 11:58	KMN	TAL BUF

**Client Sample ID: TRIP BLANKS**

**Lab Sample ID: 480-125214-16**

**Date Collected: 10/03/17 00:00**

**Matrix: Water**

**Date Received: 10/04/17 02:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	380932	10/10/17 04:04	RRS	TAL BUF

## Laboratory References:

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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Accreditation/Certification Summary

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

TestAmerica Job ID: 480-125214-1

## Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-18
California	State Program	9	2931	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	09-30-18
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-18
Kentucky (DW)	State Program	4	90029	12-31-17
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	2973	09-11-18
New Jersey	NELAP	2	NY455	06-30-18
New York	NELAP	2	10026	03-31-18
North Dakota	State Program	8	R-176	03-31-18
Oklahoma	State Program	6	9421	08-31-18
Oregon	NELAP	10	NY200003	06-09-18
Pennsylvania	NELAP	3	68-00281	07-31-18
Rhode Island	State Program	1	LAO00328	12-30-17
Tennessee	State Program	4	TN02970	03-31-18
Texas	NELAP	6	T104704412-15-6	07-31-18
USDA	Federal		P330-11-00386	11-26-17 *
Virginia	NELAP	3	460185	09-14-18
Washington	State Program	10	C784	02-10-18
Wisconsin	State Program	5	998310390	08-31-18

## Laboratory: TestAmerica Burlington

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
Connecticut	State Program	1	PH-0751	09-30-17 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-18
Florida	NELAP	4	E87467	06-30-18
L-A-B	DoD ELAP		L2336	02-25-20
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-17
New Hampshire	NELAP	1	2006	12-18-17
New Jersey	NELAP	2	VT972	06-30-18
New York	NELAP	2	10391	04-01-18
Pennsylvania	NELAP	3	68-00489	04-30-18
Rhode Island	State Program	1	LAO00298	12-30-17
US Fish & Wildlife	Federal		LE-058448-0	10-31-17
USDA	Federal		P330-11-00093	12-05-19

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

TestAmerica Buffalo



# Accreditation/Certification Summary

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

TestAmerica Job ID: 480-125214-1

## Laboratory: TestAmerica Burlington (Continued)

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
Vermont	State Program	1	VT-4000	12-31-17
Virginia	NELAP	3	460209	12-14-17

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# Method Summary

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

TestAmerica Job ID: 480-125214-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF
522	1,4 Dioxane (GC/MS SIM)	EPA	TAL BUR
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

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

# Sample Summary

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

TestAmerica Job ID: 480-125214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-125214-1	DEP-21-20171002	Water	10/02/17 08:45	10/04/17 02:15
480-125214-2	MW-264M-20171002	Water	10/02/17 11:45	10/04/17 02:15
480-125214-3	MW-266MA-20171002	Water	10/02/17 10:05	10/04/17 02:15
480-125214-4	MW-266MB-20171002	Water	10/02/17 10:40	10/04/17 02:15
480-125214-5	MW-267M-20171002	Water	10/02/17 09:30	10/04/17 02:15
480-125214-6	MW-269MA-20171002	Water	10/02/17 12:30	10/04/17 02:15
480-125214-7	MW-560-20171003	Water	10/03/17 10:15	10/04/17 02:15
480-125214-8	MW-561-20171003	Water	10/03/17 09:15	10/04/17 02:15
480-125214-9	MW-562-20171003	Water	10/03/17 08:30	10/04/17 02:15
480-125214-10	MW-563-20171003	Water	10/03/17 10:53	10/04/17 02:15
480-125214-11	REW-6-20171003	Water	10/03/17 12:55	10/04/17 02:15
480-125214-12	REW-7-20171003	Water	10/03/17 12:15	10/04/17 02:15
480-125214-13	REW-11-20171003	Water	10/03/17 13:30	10/04/17 02:15
480-125214-14	REW-12-20171003	Water	10/03/17 11:30	10/04/17 02:15
480-125214-15	DUP1-20171003	Water	10/03/17 00:00	10/04/17 02:15
480-125214-16	TRIP BLANKS	Water	10/03/17 00:00	10/04/17 02:15

# Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125214-1

**Login Number: 125214**

**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	

## Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-125214-1

**Login Number: 125214**

**List Number: 2**

**Creator: Lavigne, Scott M**

**List Source: TestAmerica Burlington**

**List Creation: 10/04/17 08:51 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are 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	3.9°C, 1.5°C, 1.1°C, 2.2°C, 1.3°C, 2.7°C
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 containers received 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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**Chain of Custody Record**

**Client Information:**  
Client Contact: *Vicki Perrone*  
Company: *ENVIRONMENTAL ENGINEERING SOLUTIONS INC*  
Address: *25 Spring St*  
City: *Waltham*  
State and Zip: *MA 02081*  
Client's Phone: *508-668-0033*  
Client's Contact Email: *v.perrone@jesolutions.com*  
Client's Project Name/Number: *Waltham Wastewater RA-008*  
Sample Collection Site Name & Location: *Waltham MA*

**Sample Information:**  
Sample Collector's Name (Please Print Neatly): *Devin Davis*  
Sample Collector's Phone: *508-404-3186*  
Due Date Requested: *10/11/17*  
Turnaround Time (TAT) Requested (business days): *5 days*  
Quote # or Project #: *RA-008*  
PO #: *RA-008*  
WO #:  
PWS ID #:

**Sample Identification**

Sample ID	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	Analysis Reques.	Lab C
<i>DEP-21 - 20171002</i>	<i>10/21/17</i>	<i>0845</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>M</i>
<i>MW-24M - 20171002</i>	<i>10/21/17</i>	<i>1145</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-24M - 20171002</i>	<i>10/21/17</i>	<i>1005</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-24M - 20171002</i>	<i>10/21/17</i>	<i>1040</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-24M - 20171002</i>	<i>10/21/17</i>	<i>0930</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-24M - 20171002</i>	<i>10/21/17</i>	<i>1230</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-340 - 201710 03</i>	<i>10/31/17</i>	<i>0915</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-341 - 201710 03</i>	<i>10/31/17</i>	<i>0830</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>
<i>MW-342 - 201710 03</i>	<i>10/31/17</i>	<i>1053</i>	<i>C</i>	<i>W</i>	<i>350.1 NH3</i>	<i>N</i>

**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

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

**Received by:** *[Signature]* Date/Time: *10-3-17 1445* Company: *TR*  
**Received by:** *[Signature]* Date/Time: *10-4-17 0215* Company: *TR*  
**Received by:** *[Signature]* Date/Time: *2.6.17* Company: *#1*

Cooler Temperature(s) °C and Other Remarks:









**Client Information:**  
Client Contact: Vicki Partridge  
Company: Ironstone Engineering Solutions Inc  
Address: 23 Spring St  
City: Waltham  
State and Zip: MA 02081  
Client's Phone: 508-668-0033  
Client's Contact Email: v.partridge@ironstoneinc.com  
Client's Project Name/Number: Waltham Wastewater RA-008  
Sample Collection Site Name & Location: Waltham MA

**Lab Information:**  
Lab P/M: \_\_\_\_\_  
E-Mail: \_\_\_\_\_  
Lab COC Barcode Label: \_\_\_\_\_

**Sample Information:**  
Sample Collector's Name (Please Print Neatly): Debra Davis  
Sample Collector's Phone: 508-704-386  
Due Date Requested: 10/11/17  
Turnaround Time (TAT) Requested (business days): 5 days  
Quote # or Project #: \_\_\_\_\_  
PO #: RA-008  
WO #: \_\_\_\_\_  
PWS ID #: \_\_\_\_\_

**Analysis Requested**

Analysis Requested	Sample Collection Date (MM/DD/YY)	Sample Collection Time (24 Hour Clock)	Sample Type: C=Comp G=Grab	Matrix Type **	Total Number of Containers (enter total for each line)
500 MPD	10/23/17	0845	G	W	3
500 MPD	10/23/17	1145	C	W	3
500 MPD	10/23/17	1005	C	W	3
500 MPD	10/23/17	1040	C	W	3
500 MPD	10/23/17	0830	C	W	3
500 MPD	10/23/17	1230	C	W	3
500 MPD	10/23/17	1015	C	W	3
500 MPD	10/23/17	0915	C	W	3
500 MPD	10/23/17	0830	C	W	3
500 MPD	10/23/17	1055	C	W	3

**Special Instructions & Notes:**  
C10-3 REGULATORY  
502-14 Dioxane  
To Burlington

**Regulatory Programs:**  
MCP  GW/IS1   
RCP  CT RSR   
DEP Form  EDD Required   
gDEP Filing  NPDES

**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)

**Subcontract Policy:**  
Unless you provide in-advance to permit TestAmerica to use certified, subcontract labs, without instructions to the contrary, or subcontract labs, without any additional notification made by us, as necessary to fulfill your work order, we are or are not to be used, you agree in

**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

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

**Relinquished By:** \_\_\_\_\_ Date/Time: 10/31/17 1405 Company: TEST  
**Relinquished By:** \_\_\_\_\_ Date/Time: 10/11/17 1025 Company: TABORA  
**Relinquished By:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

**Custody Seals Intact:**  Yes  No **Custody Seal No.:** no #5

**Cooler Temperature(s) °C and Other Remarks:**  
3, 9, 1.5, 1.1, 2.2, 1.3, 2.7



ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 030CT17  
ACTWGT: 52.20 LB  
CAD: 590687/CAFE3108

BILL RECIPIENT

ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 030CT17  
ACTWGT: 55.85 LB  
CAD: 590687/CAFE3108

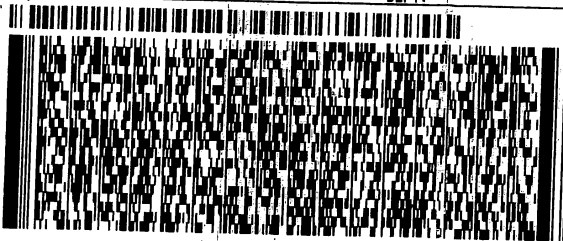
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TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INV:  
PO:

REF:

DEPT:



FedEx  
Express



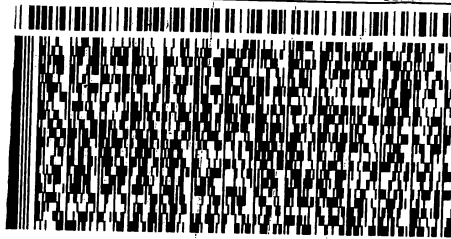
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D **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INV:  
PO:

REF:

DEPT:



FedEx  
Express



J171016102001UV

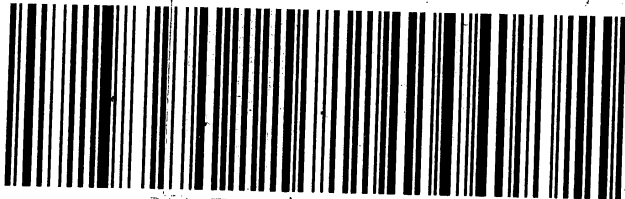
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WED - 04 OCT 3:00P  
STANDARD OVERNIGHT

0201

**NC BTVA**

05403  
VT-US BTV



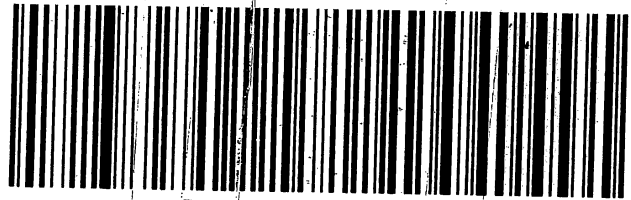
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WED - 04 OCT 3:00P  
STANDARD OVERNIGHT

0201

**NC BTVA**

05403  
VT-US BTV



Part # 156148V-434 R112 0217

ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 030CT17  
ACTWGT: 52.05 LB  
CAD: 590687/CAFE3108

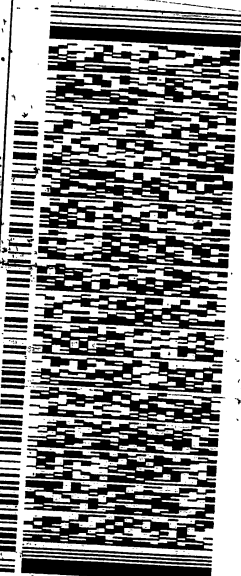
BILL RECIPIENT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INV:  
PO:

REF:

DEPT:



FedEx  
Express

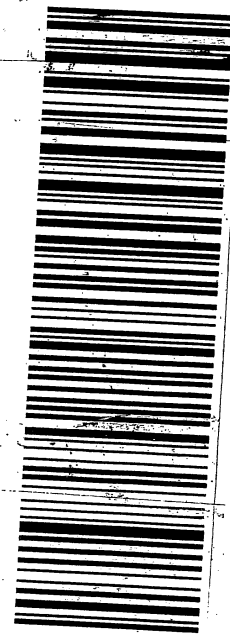


6 of 6  
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0201

**NC BTVA**

05403  
VT-US BTV



Part # 156148V-434 R112 0217

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ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 03OCT17  
ACTWTG: 54.05 LB  
CAD: 590687/CAFE3108

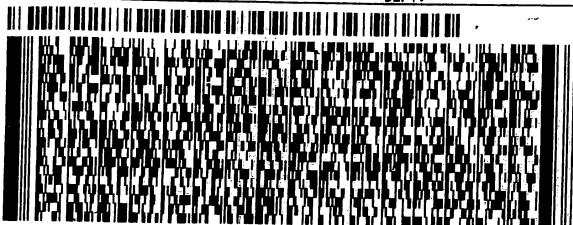
BILL RECIPIENT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INU:  
PO:

REF:

DEPT:



FedEx  
Express



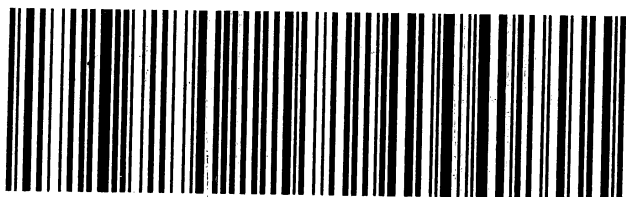
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1 of 6  
TRK# 4258 8392 2540  
## MASTER ##

WED - 04 OCT 3:00P  
STANDARD OVERNIGHT

**NC BTVA**

05403  
VT-US BTV



Part # 156148V-434 RIT2 02/17

ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 03OCT17  
ACTWTG: 53.95 LB  
CAD: 590687/CAFE3108

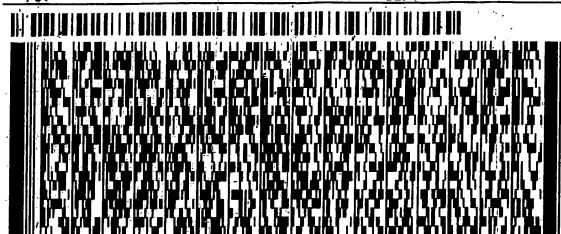
BILL RECIPIENT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INU:  
PO:

REF:

DEPT:



FedEx  
Express



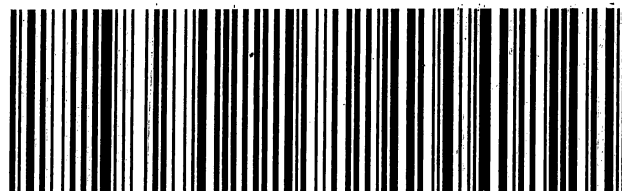
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2 of 6  
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0263  
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WED - 04 OCT 3:00P  
STANDARD OVERNIGHT

**NC BTVA**

05403  
VT-US BTV



Part # 156148V-434 RIT2 02/17

ORIGIN ID:BXCA (781) 466-6900  
PAUL HOBART  
TESTAMERICA  
240 BEAR HILL ROAD  
SUITE 104  
WALTHAM, MA 02451  
UNITED STATES US

SHIP DATE: 03OCT17  
ACTWTG: 57.55 LB  
CAD: 590687/CAFE3108

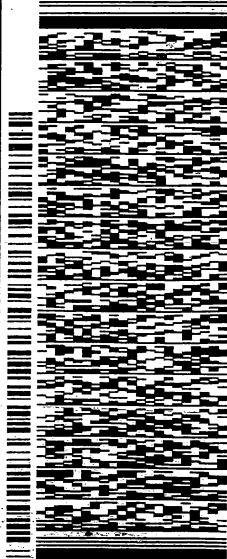
BILL RECIPIENT

TO **SAMPLE RECEIVING**  
**TESTAMERICA BURLINGTON**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 860-1990  
INU:  
PO:

REF:

DEPT:



FedEx  
Express



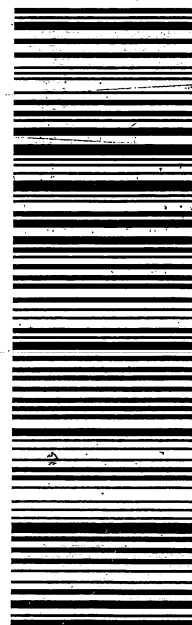
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3 of 6  
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0263  
Mstr# 4258 8392 2540

**NC BTVA**

WED - 04 OCT 3:00P  
STANDARD OVERNIGHT

05403  
VT-US BTV



Part # 156148V-434 RIT2 02/17

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