Environmental Resources Management

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http://www.erm.com

11 March 2014

Mr. Anthony DeLuca
The Koffler Group
10 Memorial Boulevard
Suite 901
Providence, RI 02903

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

Dear Mr. DeLuca:

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

Innovative Engineering Solutions, Inc. collected groundwater samples from wells on portions of the Site within the boundaries of your property on 30 January 2014. Samples were submitted to TestAmerica Laboratories, Inc. of Westfield, Massachusetts and/or to Spectrum Analytical in North Kingstown, Rhode Island. Analytical results are attached to this letter. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next MCP submittal.

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.
Senior Project Manager

enclosures: BWSC-123 – Notice of Environmental Sampling
Laboratory Analytical Reports

cc: Jonathan Hone, Raytheon Company
Ben Gould, CMG Environmental
PIP Repositories

NOTICE OF ENVIRONMENTAL SAMPLING

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

BWSC 123

This Notice is Related to Release Tracking Number

3 | 13302

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

1. Street Address: 430 Boston Post Road

City/Town: Wayland Zip Code: 01778

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

1. Name: The Koffler Group

2. Street Address: 10 Memorial Boulevard, Suite 901

City/Town: Providence, RI Zip Code: 02903

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

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

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

1. Street Address: 430 Boston Post Road

City/Town: Wayland Zip Code: 01778

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

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

3. Description of property where sampling will be/has been conducted:

☐ residential ☑ commerical ☐ industrial ☐ school/playground ☐ Other _____ (specify)

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

Collection of groundwater samples from existing monitoring wells.

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

Contact Name: Louis J. Burkhardt

Street Address: 880 Technology Park Drive, T-3033

City/Town: Billerica Zip Code: 01821

Telephone: (978) 436-8238 Email: louis_j_burkhardt@raytheon.com

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 under the Massachusetts Contingency Plan at a property 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/dep/cleanup/oview.htm. 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://mass.gov/dep/about/region/schedule.htm if you would like to make an appointment to see these files. 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: 480-54029-1
Client Project/Site: IDS Wayland

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

Attn: Vicki Pariyar

Authorized for release by:
2/7/2014 9:46:33 AM
Rich Emerich, Analyst V
rich.emerich@testamericainc.com

Designee for

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

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F1	MS and/or MSD Recovery exceeds the control 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.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Job ID: 480-54029-1

Laboratory: TestAmerica Buffalo

Narrative

Receipt

The samples were received on 1/31/2014 at 12:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA

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

Method 8260C: The continuing calibration verification (CCV) for Dichlorodifluoromethane and Chloromethane associated with batch 164338 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 164338 exceeded control limits for the following analytes: Dichlorodifluoromethane and Tetrahydrofuran. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The following samples wwere diluted to bring the concentration of target analytes within the calibration range: (480-54029-3 MS), (480-54029-3 MSD), MW-267M-20140130-01 (480-54029-2), MW-267S-20140130-01 (480-54029-1), MW-268M-20140130-01 (480-54029-3), MW-561-20140130-01 (480-54029-4), REW-12-20140130-01 (480-54029-10), REW-6-20140130-01 (480-54029-6), REW-7-20140130-01 (480-54029-7), DupX-20140130-01 (480-54029-11), MW-268M-20140130-01 (480-54029-3),MW-553-20140130-01 (480-54029-5) and MW-561-20140130-01 (480-54029-4). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) for 1,4-Dioxane, 2-Butanone, 2-Hexanone, Acetone, Chloromethane, and Dichlorodifluoromethane associated with batch 164408 recovered above the MCP upper control limit. MCP protocol allows for 20% of the target compounds to be outside the 20% difference but not over 40% difference.

Method 8260C: The laboratory control sample (LCS) and the laboratory control sample duplicate (LCSD) for batch 164408 exceeded control limits for the following analytes: Dichlorodifluoromethane and Tetrahydrofuran. MCP protocol allows for 10% of the target compounds to be outside of the limits provided the recoveries are over 10%.

Method 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 164532 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method 8260C: Due to the high concentration of cis-1,2-Dichloroethene, the matrix spike / matrix spike duplicate (MS/MSD) for batch 164338 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 164338 were outside control limits. Sample matrix interference was suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No other analytical or quality issues were noted.

MassDEP Analytical Protocol Certification Form

Laboratory Name: **TestAmerica Buffalo** Project #: **480-54029**

Project Location: **IDS Wayland** RTN:

This form provides certifications for the data set for the following Laboratory Sample ID Number(s):

480-54209 [1-11]

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

CAM Protocols (check all that apply below):

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

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

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

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

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ■ No[1]

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

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes ■ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s) ?	■ Yes ☐ No[1]

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

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

Signature:  Position: Technical Director, TestAmerica Westfield

Printed Name: Richard Emerich Date: 2/7/14 9:32

This form has been electronically signed and approved.

Detection Summary

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: MW-267S-20140130-01 — Lab Sample ID: 480-54029-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	280		50		ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	390		5.0		ug/L	5		8260C	Total/NA
Toluene	350		5.0		ug/L	5		8260C	Total/NA
Vinyl chloride	13		5.0		ug/L	5		8260C	Total/NA

Client Sample ID: MW-267M-20140130-01 — Lab Sample ID: 480-54029-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	180		100		ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	430		10		ug/L	10		8260C	Total/NA
Toluene	90		10		ug/L	10		8260C	Total/NA
Vinyl chloride	40		10		ug/L	10		8260C	Total/NA

Client Sample ID: MW-268M-20140130-01 — Lab Sample ID: 480-54029-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	37		25		ug/L	25		8260C	Total/NA
Trichloroethene	1100		25		ug/L	25		8260C	Total/NA
Vinyl chloride	210		25		ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene - DL	3100		40		ug/L	40		8260C	Total/NA

Client Sample ID: MW-561-20140130-01 — Lab Sample ID: 480-54029-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	61		50		ug/L	5		8260C	Total/NA
Ethylbenzene	15		5.0		ug/L	5		8260C	Total/NA
m-Xylene & p-Xylene	61		10		ug/L	5		8260C	Total/NA
o-Xylene	15		5.0		ug/L	5		8260C	Total/NA
Vinyl chloride	240		5.0		ug/L	5		8260C	Total/NA
Toluene - DL	1200		20		ug/L	20		8260C	Total/NA

Client Sample ID: MW-553-20140130-01 — Lab Sample ID: 480-54029-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	130		40		ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	200		4.0		ug/L	4		8260C	Total/NA
m-Xylene & p-Xylene	12		8.0		ug/L	4		8260C	Total/NA
Toluene	33		4.0		ug/L	4		8260C	Total/NA
Vinyl chloride	87		4.0		ug/L	4		8260C	Total/NA

Client Sample ID: REW-6-20140130-01 — Lab Sample ID: 480-54029-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	400		5.0		ug/L	5		8260C	Total/NA
Toluene	170		5.0		ug/L	5		8260C	Total/NA
Trichloroethene	65		5.0		ug/L	5		8260C	Total/NA
Vinyl chloride	19		5.0		ug/L	5		8260C	Total/NA

Client Sample ID: REW-7-20140130-01 — Lab Sample ID: 480-54029-7

This Detection Summary does not include radiochemical test results.

Client Sample ID: REW-7-20140130-01 (Continued) — Lab Sample ID: 480-54029-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	730		10		ug/L	10		8260C	Total/NA
Trichloroethene	100		10		ug/L	10		8260C	Total/NA
Vinyl chloride	110		10		ug/L	10		8260C	Total/NA

Client Sample ID: REW-8-20140130-01 — Lab Sample ID: 480-54029-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0		ug/L	1		8260C	Total/NA
Toluene	1.0		1.0		ug/L	1		8260C	Total/NA
Trichloroethene	1.5		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	7.1		1.0		ug/L	1		8260C	Total/NA

Client Sample ID: REW-9-20140130-01 — Lab Sample ID: 480-54029-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	78		10		ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	67		1.0		ug/L	1		8260C	Total/NA
m-Xylene & p-Xylene	3.5		2.0		ug/L	1		8260C	Total/NA
Toluene	46		1.0		ug/L	1		8260C	Total/NA
Vinyl chloride	22		1.0		ug/L	1		8260C	Total/NA

Client Sample ID: REW-12-20140130-01 — Lab Sample ID: 480-54029-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	340		4.0		ug/L	4		8260C	Total/NA
Toluene	23		4.0		ug/L	4		8260C	Total/NA
Trichloroethene	52		4.0		ug/L	4		8260C	Total/NA
Vinyl chloride	58		4.0		ug/L	4		8260C	Total/NA

Client Sample ID: DupX-20140130-01 — Lab Sample ID: 480-54029-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	67		40		ug/L	20		8260C	Total/NA
Toluene	1200		20		ug/L	20		8260C	Total/NA
Vinyl chloride	250		20		ug/L	20		8260C	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 480-54029-12

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-267S-20140130-01
Date Collected: 01/30/14 12:50
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-1
Matrix: Water

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			02/04/14 04:10	5
1,1,1-Trichloroethane	ND		5.0		ug/L			02/04/14 04:10	5
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			02/04/14 04:10	5
1,1,2-Trichloroethane	ND		5.0		ug/L			02/04/14 04:10	5
1,1-Dichloroethane	ND		5.0		ug/L			02/04/14 04:10	5
1,1-Dichloroethene	ND		5.0		ug/L			02/04/14 04:10	5
1,1-Dichloropropene	ND		5.0		ug/L			02/04/14 04:10	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,2,3-Trichloropropane	ND		5.0		ug/L			02/04/14 04:10	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,2,4-Trimethylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,2-Dibromo-3-Chloropropane	ND		25		ug/L			02/04/14 04:10	5
1,2-Dichlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,2-Dichloroethane	ND		5.0		ug/L			02/04/14 04:10	5
1,2-Dichloropropane	ND		5.0		ug/L			02/04/14 04:10	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,3-Dichlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,3-Dichloropropane	ND		5.0		ug/L			02/04/14 04:10	5
1,4-Dichlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
1,4-Dioxane	ND		250		ug/L			02/04/14 04:10	5
2,2-Dichloropropane	ND		5.0		ug/L			02/04/14 04:10	5
2-Butanone (MEK)	**280**		50		ug/L			02/04/14 04:10	5
2-Chlorotoluene	ND		5.0		ug/L			02/04/14 04:10	5
2-Hexanone	ND		50		ug/L			02/04/14 04:10	5
4-Chlorotoluene	ND		5.0		ug/L			02/04/14 04:10	5
4-Isopropyltoluene	ND		5.0		ug/L			02/04/14 04:10	5
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/14 04:10	5
Acetone	ND		250		ug/L			02/04/14 04:10	5
Benzene	ND		5.0		ug/L			02/04/14 04:10	5
Bromobenzene	ND		5.0		ug/L			02/04/14 04:10	5
Bromoform	ND		5.0		ug/L			02/04/14 04:10	5
Bromomethane	ND		10		ug/L			02/04/14 04:10	5
Carbon disulfide	ND		50		ug/L			02/04/14 04:10	5
Carbon tetrachloride	ND		5.0		ug/L			02/04/14 04:10	5
Chlorobenzene	ND		5.0		ug/L			02/04/14 04:10	5
Chlorobromomethane	ND		5.0		ug/L			02/04/14 04:10	5
Chlorodibromomethane	ND		2.5		ug/L			02/04/14 04:10	5
Chloroethane	ND		10		ug/L			02/04/14 04:10	5
Chloroform	ND		5.0		ug/L			02/04/14 04:10	5
Chloromethane	ND		10		ug/L			02/04/14 04:10	5
cis-1,2-Dichloroethene	**390**		5.0		ug/L			02/04/14 04:10	5
cis-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 04:10	5
Dichlorobromomethane	ND		2.5		ug/L			02/04/14 04:10	5
Dichlorodifluoromethane	ND	*	5.0		ug/L			02/04/14 04:10	5
Ethyl ether	ND		5.0		ug/L			02/04/14 04:10	5
Ethylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
Ethylene Dibromide	ND		5.0		ug/L			02/04/14 04:10	5
Hexachlorobutadiene	ND		2.0		ug/L			02/04/14 04:10	5
Isopropyl ether	ND		50		ug/L			02/04/14 04:10	5

Client Sample ID: MW-267S-20140130-01

Lab Sample ID: 480-54029-1

Date Collected: 01/30/14 12:50

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
Methyl tert-butyl ether	ND		5.0		ug/L			02/04/14 04:10	5
Methylene Chloride	ND		5.0		ug/L			02/04/14 04:10	5
m-Xylene & p-Xylene	ND		10		ug/L			02/04/14 04:10	5
Naphthalene	ND		25		ug/L			02/04/14 04:10	5
n-Butylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
N-Propylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
o-Xylene	ND		5.0		ug/L			02/04/14 04:10	5
sec-Butylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
Styrene	ND		5.0		ug/L			02/04/14 04:10	5
Tert-amyl methyl ether	ND		25		ug/L			02/04/14 04:10	5
Tert-butyl ethyl ether	ND		25		ug/L			02/04/14 04:10	5
tert-Butylbenzene	ND		5.0		ug/L			02/04/14 04:10	5
Tetrachloroethene	ND		5.0		ug/L			02/04/14 04:10	5
Tetrahydrofuran	ND	*	50		ug/L			02/04/14 04:10	5
Toluene	**350**		5.0		ug/L			02/04/14 04:10	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			02/04/14 04:10	5
trans-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 04:10	5
Trichloroethene	ND		5.0		ug/L			02/04/14 04:10	5
Trichlorofluoromethane	ND		5.0		ug/L			02/04/14 04:10	5
Vinyl chloride	**13**		5.0		ug/L			02/04/14 04:10	5
Dibromomethane	ND		5.0		ug/L			02/04/14 04:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/04/14 04:10*	*5*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 04:10*	*5*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/04/14 04:10*	*5*

Client Sample ID: MW-267M-20140130-01

Lab Sample ID: 480-54029-2

Date Collected: 01/30/14 12:10

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			02/04/14 04:33	10
1,1,1-Trichloroethane	ND		10		ug/L			02/04/14 04:33	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			02/04/14 04:33	10
1,1,2-Trichloroethane	ND		10		ug/L			02/04/14 04:33	10
1,1-Dichloroethane	ND		10		ug/L			02/04/14 04:33	10
1,1-Dichloroethene	ND		10		ug/L			02/04/14 04:33	10
1,1-Dichloropropene	ND		10		ug/L			02/04/14 04:33	10
1,2,3-Trichlorobenzene	ND		10		ug/L			02/04/14 04:33	10
1,2,3-Trichloropropane	ND		10		ug/L			02/04/14 04:33	10
1,2,4-Trichlorobenzene	ND		10		ug/L			02/04/14 04:33	10
1,2,4-Trimethylbenzene	ND		10		ug/L			02/04/14 04:33	10
1,2-Dibromo-3-Chloropropane	ND		50		ug/L			02/04/14 04:33	10
1,2-Dichlorobenzene	ND		10		ug/L			02/04/14 04:33	10
1,2-Dichloroethane	ND		10		ug/L			02/04/14 04:33	10
1,2-Dichloropropane	ND		10		ug/L			02/04/14 04:33	10
1,3,5-Trimethylbenzene	ND		10		ug/L			02/04/14 04:33	10

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: MW-267M-20140130-01
Date Collected: 01/30/14 12:10
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		10		ug/L			02/04/14 04:33	10
1,3-Dichloropropane	ND		10		ug/L			02/04/14 04:33	10
1,4-Dichlorobenzene	ND		10		ug/L			02/04/14 04:33	10
1,4-Dioxane	ND		500		ug/L			02/04/14 04:33	10
2,2-Dichloropropane	ND		10		ug/L			02/04/14 04:33	10
2-Butanone (MEK)	**180**		100		ug/L			02/04/14 04:33	10
2-Chlorotoluene	ND		10		ug/L			02/04/14 04:33	10
2-Hexanone	ND		100		ug/L			02/04/14 04:33	10
4-Chlorotoluene	ND		10		ug/L			02/04/14 04:33	10
4-Isopropyltoluene	ND		10		ug/L			02/04/14 04:33	10
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			02/04/14 04:33	10
Acetone	ND		500		ug/L			02/04/14 04:33	10
Benzene	ND		10		ug/L			02/04/14 04:33	10
Bromobenzene	ND		10		ug/L			02/04/14 04:33	10
Bromoform	ND		10		ug/L			02/04/14 04:33	10
Bromomethane	ND		20		ug/L			02/04/14 04:33	10
Carbon disulfide	ND		100		ug/L			02/04/14 04:33	10
Carbon tetrachloride	ND		10		ug/L			02/04/14 04:33	10
Chlorobenzene	ND		10		ug/L			02/04/14 04:33	10
Chlorobromomethane	ND		10		ug/L			02/04/14 04:33	10
Chlorodibromomethane	ND		5.0		ug/L			02/04/14 04:33	10
Chloroethane	ND		20		ug/L			02/04/14 04:33	10
Chloroform	ND		10		ug/L			02/04/14 04:33	10
Chloromethane	ND		20		ug/L			02/04/14 04:33	10
cis-1,2-Dichloroethene	**430**		10		ug/L			02/04/14 04:33	10
cis-1,3-Dichloropropene	ND		4.0		ug/L			02/04/14 04:33	10
Dichlorobromomethane	ND		5.0		ug/L			02/04/14 04:33	10
Dichlorodifluoromethane	ND	*	10		ug/L			02/04/14 04:33	10
Ethyl ether	ND		10		ug/L			02/04/14 04:33	10
Ethylbenzene	ND		10		ug/L			02/04/14 04:33	10
Ethylene Dibromide	ND		10		ug/L			02/04/14 04:33	10
Hexachlorobutadiene	ND		4.0		ug/L			02/04/14 04:33	10
Isopropyl ether	ND		100		ug/L			02/04/14 04:33	10
Isopropylbenzene	ND		10		ug/L			02/04/14 04:33	10
Methyl tert-butyl ether	ND		10		ug/L			02/04/14 04:33	10
Methylene Chloride	ND		10		ug/L			02/04/14 04:33	10
m-Xylene & p-Xylene	ND		20		ug/L			02/04/14 04:33	10
Naphthalene	ND		50		ug/L			02/04/14 04:33	10
n-Butylbenzene	ND		10		ug/L			02/04/14 04:33	10
N-Propylbenzene	ND		10		ug/L			02/04/14 04:33	10
o-Xylene	ND		10		ug/L			02/04/14 04:33	10
sec-Butylbenzene	ND		10		ug/L			02/04/14 04:33	10
Styrene	ND		10		ug/L			02/04/14 04:33	10
Tert-amyl methyl ether	ND		50		ug/L			02/04/14 04:33	10
Tert-butyl ethyl ether	ND		50		ug/L			02/04/14 04:33	10
tert-Butylbenzene	ND		10		ug/L			02/04/14 04:33	10
Tetrachloroethene	ND		10		ug/L			02/04/14 04:33	10
Tetrahydrofuran	ND	*	100		ug/L			02/04/14 04:33	10
Toluene	**90**		10		ug/L			02/04/14 04:33	10

Client Sample ID: MW-267M-20140130-01 — **Lab Sample ID: 480-54029-2**
Date Collected: 01/30/14 12:10 — **Matrix: Water**
Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		10		ug/L			02/04/14 04:33	10
trans-1,3-Dichloropropene	ND		4.0		ug/L			02/04/14 04:33	10
Trichloroethene	ND		10		ug/L			02/04/14 04:33	10
Trichlorofluoromethane	ND		10		ug/L			02/04/14 04:33	10
Vinyl chloride	**40**		10		ug/L			02/04/14 04:33	10
Dibromomethane	ND		10		ug/L			02/04/14 04:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/04/14 04:33*	*10*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*02/04/14 04:33*	*10*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*02/04/14 04:33*	*10*

Client Sample ID: MW-268M-20140130-01 — **Lab Sample ID: 480-54029-3**
Date Collected: 01/30/14 11:25 — **Matrix: Water**
Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		25		ug/L			02/04/14 04:57	25
1,1,1-Trichloroethane	ND		25		ug/L			02/04/14 04:57	25
1,1,2,2-Tetrachloroethane	ND		13		ug/L			02/04/14 04:57	25
1,1,2-Trichloroethane	ND		25		ug/L			02/04/14 04:57	25
1,1-Dichloroethane	ND		25		ug/L			02/04/14 04:57	25
1,1-Dichloroethene	ND		25		ug/L			02/04/14 04:57	25
1,1-Dichloropropene	ND		25		ug/L			02/04/14 04:57	25
1,2,3-Trichlorobenzene	ND		25		ug/L			02/04/14 04:57	25
1,2,3-Trichloropropane	ND		25		ug/L			02/04/14 04:57	25
1,2,4-Trichlorobenzene	ND		25		ug/L			02/04/14 04:57	25
1,2,4-Trimethylbenzene	ND		25		ug/L			02/04/14 04:57	25
1,2-Dibromo-3-Chloropropane	ND		130		ug/L			02/04/14 04:57	25
1,2-Dichlorobenzene	ND		25		ug/L			02/04/14 04:57	25
1,2-Dichloroethane	ND		25		ug/L			02/04/14 04:57	25
1,2-Dichloropropane	ND		25		ug/L			02/04/14 04:57	25
1,3,5-Trimethylbenzene	ND		25		ug/L			02/04/14 04:57	25
1,3-Dichlorobenzene	ND		25		ug/L			02/04/14 04:57	25
1,3-Dichloropropane	ND		25		ug/L			02/04/14 04:57	25
1,4-Dichlorobenzene	ND		25		ug/L			02/04/14 04:57	25
1,4-Dioxane	ND		1300		ug/L			02/04/14 04:57	25
2,2-Dichloropropane	ND		25		ug/L			02/04/14 04:57	25
2-Butanone (MEK)	ND		250		ug/L			02/04/14 04:57	25
2-Chlorotoluene	ND		25		ug/L			02/04/14 04:57	25
2-Hexanone	ND		250		ug/L			02/04/14 04:57	25
4-Chlorotoluene	ND		25		ug/L			02/04/14 04:57	25
4-Isopropyltoluene	ND		25		ug/L			02/04/14 04:57	25
4-Methyl-2-pentanone (MIBK)	ND		250		ug/L			02/04/14 04:57	25
Acetone	ND		1300		ug/L			02/04/14 04:57	25
Benzene	ND		25		ug/L			02/04/14 04:57	25
Bromobenzene	ND		25		ug/L			02/04/14 04:57	25
Bromoform	ND		25		ug/L			02/04/14 04:57	25
Bromomethane	ND		50		ug/L			02/04/14 04:57	25

Client Sample ID: MW-268M-20140130-01
Date Collected: 01/30/14 11:25
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		250		ug/L			02/04/14 04:57	25
Carbon tetrachloride	ND		25		ug/L			02/04/14 04:57	25
Chlorobenzene	ND		25		ug/L			02/04/14 04:57	25
Chlorobromomethane	ND		25		ug/L			02/04/14 04:57	25
Chlorodibromomethane	ND		13		ug/L			02/04/14 04:57	25
Chloroethane	ND		50		ug/L			02/04/14 04:57	25
Chloroform	ND		25		ug/L			02/04/14 04:57	25
Chloromethane	ND		50		ug/L			02/04/14 04:57	25
cis-1,3-Dichloropropene	ND		10		ug/L			02/04/14 04:57	25
Dichlorobromomethane	ND		13		ug/L			02/04/14 04:57	25
Dichlorodifluoromethane	ND	*	25		ug/L			02/04/14 04:57	25
Ethyl ether	ND		25		ug/L			02/04/14 04:57	25
Ethylbenzene	ND		25		ug/L			02/04/14 04:57	25
Ethylene Dibromide	ND		25		ug/L			02/04/14 04:57	25
Hexachlorobutadiene	ND		10		ug/L			02/04/14 04:57	25
Isopropyl ether	ND		250		ug/L			02/04/14 04:57	25
Isopropylbenzene	ND		25		ug/L			02/04/14 04:57	25
Methyl tert-butyl ether	ND		25		ug/L			02/04/14 04:57	25
Methylene Chloride	ND		25		ug/L			02/04/14 04:57	25
m-Xylene & p-Xylene	ND		50		ug/L			02/04/14 04:57	25
Naphthalene	ND		130		ug/L			02/04/14 04:57	25
n-Butylbenzene	ND		25		ug/L			02/04/14 04:57	25
N-Propylbenzene	ND		25		ug/L			02/04/14 04:57	25
o-Xylene	ND		25		ug/L			02/04/14 04:57	25
sec-Butylbenzene	ND		25		ug/L			02/04/14 04:57	25
Styrene	ND		25		ug/L			02/04/14 04:57	25
Tert-amyl methyl ether	ND		130		ug/L			02/04/14 04:57	25
Tert-butyl ethyl ether	ND		130		ug/L			02/04/14 04:57	25
tert-Butylbenzene	ND		25		ug/L			02/04/14 04:57	25
Tetrachloroethene	**37**		25		ug/L			02/04/14 04:57	25
Tetrahydrofuran	ND	*	250		ug/L			02/04/14 04:57	25
Toluene	ND		25		ug/L			02/04/14 04:57	25
trans-1,2-Dichloroethene	ND		25		ug/L			02/04/14 04:57	25
trans-1,3-Dichloropropene	ND		10		ug/L			02/04/14 04:57	25
Trichloroethene	**1100**		25		ug/L			02/04/14 04:57	25
Trichlorofluoromethane	ND		25		ug/L			02/04/14 04:57	25
Vinyl chloride	**210**		25		ug/L			02/04/14 04:57	25
Dibromomethane	ND		25		ug/L			02/04/14 04:57	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*70 - 130*		*02/04/14 04:57*	*25*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*02/04/14 04:57*	*25*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*		*02/04/14 04:57*	*25*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**3100**		40		ug/L			02/04/14 13:47	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*02/04/14 13:47*	*40*

Client Sample ID: MW-268M-20140130-01

Lab Sample ID: 480-54029-3

Date Collected: 01/30/14 11:25

Matrix: Water

Date Received: 01/31/14 00:30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 13:47*	*40*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*02/04/14 13:47*	*40*

Client Sample ID: MW-561-20140130-01

Lab Sample ID: 480-54029-4

Date Collected: 01/30/14 09:10

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/04/14 05:21	5
1,1,1-Trichloroethane	ND		5.0		ug/L			02/04/14 05:21	5
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			02/04/14 05:21	5
1,1,2-Trichloroethane	ND		5.0		ug/L			02/04/14 05:21	5
1,1-Dichloroethane	ND		5.0		ug/L			02/04/14 05:21	5
1,1-Dichloroethene	ND		5.0		ug/L			02/04/14 05:21	5
1,1-Dichloropropene	ND		5.0		ug/L			02/04/14 05:21	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,2,3-Trichloropropane	ND		5.0		ug/L			02/04/14 05:21	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,2,4-Trimethylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,2-Dibromo-3-Chloropropane	ND		25		ug/L			02/04/14 05:21	5
1,2-Dichlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,2-Dichloroethane	ND		5.0		ug/L			02/04/14 05:21	5
1,2-Dichloropropane	ND		5.0		ug/L			02/04/14 05:21	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,3-Dichlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,3-Dichloropropane	ND		5.0		ug/L			02/04/14 05:21	5
1,4-Dichlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
1,4-Dioxane	ND		250		ug/L			02/04/14 05:21	5
2,2-Dichloropropane	ND		5.0		ug/L			02/04/14 05:21	5
2-Butanone (MEK)	**61**		50		ug/L			02/04/14 05:21	5
2-Chlorotoluene	ND		5.0		ug/L			02/04/14 05:21	5
2-Hexanone	ND		50		ug/L			02/04/14 05:21	5
4-Chlorotoluene	ND		5.0		ug/L			02/04/14 05:21	5
4-Isopropyltoluene	ND		5.0		ug/L			02/04/14 05:21	5
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/14 05:21	5
Acetone	ND		250		ug/L			02/04/14 05:21	5
Benzene	ND		5.0		ug/L			02/04/14 05:21	5
Bromobenzene	ND		5.0		ug/L			02/04/14 05:21	5
Bromoform	ND		5.0		ug/L			02/04/14 05:21	5
Bromomethane	ND		10		ug/L			02/04/14 05:21	5
Carbon disulfide	ND		50		ug/L			02/04/14 05:21	5
Carbon tetrachloride	ND		5.0		ug/L			02/04/14 05:21	5
Chlorobenzene	ND		5.0		ug/L			02/04/14 05:21	5
Chlorobromomethane	ND		5.0		ug/L			02/04/14 05:21	5
Chlorodibromomethane	ND		2.5		ug/L			02/04/14 05:21	5
Chloroethane	ND		10		ug/L			02/04/14 05:21	5
Chloroform	ND		5.0		ug/L			02/04/14 05:21	5
Chloromethane	ND		10		ug/L			02/04/14 05:21	5

Client Sample ID: MW-561-20140130-01
Date Collected: 01/30/14 09:10
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		5.0		ug/L			02/04/14 05:21	5
cis-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 05:21	5
Dichlorobromomethane	ND		2.5		ug/L			02/04/14 05:21	5
Dichlorodifluoromethane	ND	*	5.0		ug/L			02/04/14 05:21	5
Ethyl ether	ND		5.0		ug/L			02/04/14 05:21	5
Ethylbenzene	**15**		5.0		ug/L			02/04/14 05:21	5
Ethylene Dibromide	ND		5.0		ug/L			02/04/14 05:21	5
Hexachlorobutadiene	ND		2.0		ug/L			02/04/14 05:21	5
Isopropyl ether	ND		50		ug/L			02/04/14 05:21	5
Isopropylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
Methyl tert-butyl ether	ND		5.0		ug/L			02/04/14 05:21	5
Methylene Chloride	ND		5.0		ug/L			02/04/14 05:21	5
m-Xylene & p-Xylene	**61**		10		ug/L			02/04/14 05:21	5
Naphthalene	ND		25		ug/L			02/04/14 05:21	5
n-Butylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
N-Propylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
o-Xylene	**15**		5.0		ug/L			02/04/14 05:21	5
sec-Butylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
Styrene	ND		5.0		ug/L			02/04/14 05:21	5
Tert-amyl methyl ether	ND		25		ug/L			02/04/14 05:21	5
Tert-butyl ethyl ether	ND		25		ug/L			02/04/14 05:21	5
tert-Butylbenzene	ND		5.0		ug/L			02/04/14 05:21	5
Tetrachloroethene	ND		5.0		ug/L			02/04/14 05:21	5
Tetrahydrofuran	ND	*	50		ug/L			02/04/14 05:21	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			02/04/14 05:21	5
trans-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 05:21	5
Trichloroethene	ND		5.0		ug/L			02/04/14 05:21	5
Trichlorofluoromethane	ND		5.0		ug/L			02/04/14 05:21	5
Vinyl chloride	**240**		5.0		ug/L			02/04/14 05:21	5
Dibromomethane	ND		5.0		ug/L			02/04/14 05:21	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 05:21*	*5*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 05:21*	*5*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/04/14 05:21*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**1200**		20		ug/L			02/04/14 14:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 14:11*	*20*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*02/04/14 14:11*	*20*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*02/04/14 14:11*	*20*

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: MW-553-20140130-01
Date Collected: 01/30/14 10:30
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-5
Matrix: Water

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			02/05/14 00:18	4
1,1,1-Trichloroethane	ND		4.0		ug/L			02/05/14 00:18	4
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			02/05/14 00:18	4
1,1,2-Trichloroethane	ND		4.0		ug/L			02/05/14 00:18	4
1,1-Dichloroethane	ND		4.0		ug/L			02/05/14 00:18	4
1,1-Dichloroethene	ND		4.0		ug/L			02/05/14 00:18	4
1,1-Dichloropropene	ND		4.0		ug/L			02/05/14 00:18	4
1,2,3-Trichlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,2,3-Trichloropropane	ND		4.0		ug/L			02/05/14 00:18	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,2,4-Trimethylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			02/05/14 00:18	4
1,2-Dichlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,2-Dichloroethane	ND		4.0		ug/L			02/05/14 00:18	4
1,2-Dichloropropane	ND		4.0		ug/L			02/05/14 00:18	4
1,3,5-Trimethylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,3-Dichlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,3-Dichloropropane	ND		4.0		ug/L			02/05/14 00:18	4
1,4-Dichlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
1,4-Dioxane	ND		200		ug/L			02/05/14 00:18	4
2,2-Dichloropropane	ND		4.0		ug/L			02/05/14 00:18	4
2-Butanone (MEK)	**130**		40		ug/L			02/05/14 00:18	4
2-Chlorotoluene	ND		4.0		ug/L			02/05/14 00:18	4
2-Hexanone	ND		40		ug/L			02/05/14 00:18	4
4-Chlorotoluene	ND		4.0		ug/L			02/05/14 00:18	4
4-Isopropyltoluene	ND		4.0		ug/L			02/05/14 00:18	4
4-Methyl-2-pentanone (MIBK)	ND		40		ug/L			02/05/14 00:18	4
Acetone	ND		200		ug/L			02/05/14 00:18	4
Benzene	ND		4.0		ug/L			02/05/14 00:18	4
Bromobenzene	ND		4.0		ug/L			02/05/14 00:18	4
Bromoform	ND		4.0		ug/L			02/05/14 00:18	4
Bromomethane	ND		8.0		ug/L			02/05/14 00:18	4
Carbon disulfide	ND		40		ug/L			02/05/14 00:18	4
Carbon tetrachloride	ND		4.0		ug/L			02/05/14 00:18	4
Chlorobenzene	ND		4.0		ug/L			02/05/14 00:18	4
Chlorobromomethane	ND		4.0		ug/L			02/05/14 00:18	4
Chlorodibromomethane	ND		2.0		ug/L			02/05/14 00:18	4
Chloroethane	ND		8.0		ug/L			02/05/14 00:18	4
Chloroform	ND		4.0		ug/L			02/05/14 00:18	4
Chloromethane	ND		8.0		ug/L			02/05/14 00:18	4
cis-1,2-Dichloroethene	**200**		4.0		ug/L			02/05/14 00:18	4
cis-1,3-Dichloropropene	ND		1.6		ug/L			02/05/14 00:18	4
Dichlorobromomethane	ND		2.0		ug/L			02/05/14 00:18	4
Dichlorodifluoromethane	ND		4.0		ug/L			02/05/14 00:18	4
Ethyl ether	ND		4.0		ug/L			02/05/14 00:18	4
Ethylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
Ethylene Dibromide	ND		4.0		ug/L			02/05/14 00:18	4
Hexachlorobutadiene	ND		1.6		ug/L			02/05/14 00:18	4
Isopropyl ether	ND		40		ug/L			02/05/14 00:18	4

Client Sample ID: MW-553-20140130-01

Lab Sample ID: 480-54029-5

Date Collected: 01/30/14 10:30

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
Methyl tert-butyl ether	ND		4.0		ug/L			02/05/14 00:18	4
Methylene Chloride	ND		4.0		ug/L			02/05/14 00:18	4
m-Xylene & p-Xylene	**12**		8.0		ug/L			02/05/14 00:18	4
Naphthalene	ND		20		ug/L			02/05/14 00:18	4
n-Butylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
N-Propylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
o-Xylene	ND		4.0		ug/L			02/05/14 00:18	4
sec-Butylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
Styrene	ND		4.0		ug/L			02/05/14 00:18	4
Tert-amyl methyl ether	ND		20		ug/L			02/05/14 00:18	4
Tert-butyl ethyl ether	ND		20		ug/L			02/05/14 00:18	4
tert-Butylbenzene	ND		4.0		ug/L			02/05/14 00:18	4
Tetrachloroethene	ND		4.0		ug/L			02/05/14 00:18	4
Tetrahydrofuran	ND		40		ug/L			02/05/14 00:18	4
Toluene	**33**		4.0		ug/L			02/05/14 00:18	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			02/05/14 00:18	4
trans-1,3-Dichloropropene	ND		1.6		ug/L			02/05/14 00:18	4
Trichloroethene	ND		4.0		ug/L			02/05/14 00:18	4
Trichlorofluoromethane	ND		4.0		ug/L			02/05/14 00:18	4
Vinyl chloride	**87**		4.0		ug/L			02/05/14 00:18	4
Dibromomethane	ND		4.0		ug/L			02/05/14 00:18	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/05/14 00:18*	*4*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*02/05/14 00:18*	*4*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*02/05/14 00:18*	*4*

Client Sample ID: REW-6-20140130-01

Lab Sample ID: 480-54029-6

Date Collected: 01/30/14 09:55

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			02/04/14 06:08	5
1,1,1-Trichloroethane	ND		5.0		ug/L			02/04/14 06:08	5
1,1,2,2-Tetrachloroethane	ND		2.5		ug/L			02/04/14 06:08	5
1,1,2-Trichloroethane	ND		5.0		ug/L			02/04/14 06:08	5
1,1-Dichloroethane	ND		5.0		ug/L			02/04/14 06:08	5
1,1-Dichloroethene	ND		5.0		ug/L			02/04/14 06:08	5
1,1-Dichloropropene	ND		5.0		ug/L			02/04/14 06:08	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,2,3-Trichloropropane	ND		5.0		ug/L			02/04/14 06:08	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,2,4-Trimethylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,2-Dibromo-3-Chloropropane	ND		25		ug/L			02/04/14 06:08	5
1,2-Dichlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,2-Dichloroethane	ND		5.0		ug/L			02/04/14 06:08	5
1,2-Dichloropropane	ND		5.0		ug/L			02/04/14 06:08	5
1,3,5-Trimethylbenzene	ND		5.0		ug/L			02/04/14 06:08	5

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-6-20140130-01
Date Collected: 01/30/14 09:55
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,3-Dichloropropane	ND		5.0		ug/L			02/04/14 06:08	5
1,4-Dichlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
1,4-Dioxane	ND		250		ug/L			02/04/14 06:08	5
2,2-Dichloropropane	ND		5.0		ug/L			02/04/14 06:08	5
2-Butanone (MEK)	ND		50		ug/L			02/04/14 06:08	5
2-Chlorotoluene	ND		5.0		ug/L			02/04/14 06:08	5
2-Hexanone	ND		50		ug/L			02/04/14 06:08	5
4-Chlorotoluene	ND		5.0		ug/L			02/04/14 06:08	5
4-Isopropyltoluene	ND		5.0		ug/L			02/04/14 06:08	5
4-Methyl-2-pentanone (MIBK)	ND		50		ug/L			02/04/14 06:08	5
Acetone	ND		250		ug/L			02/04/14 06:08	5
Benzene	ND		5.0		ug/L			02/04/14 06:08	5
Bromobenzene	ND		5.0		ug/L			02/04/14 06:08	5
Bromoform	ND		5.0		ug/L			02/04/14 06:08	5
Bromomethane	ND		10		ug/L			02/04/14 06:08	5
Carbon disulfide	ND		50		ug/L			02/04/14 06:08	5
Carbon tetrachloride	ND		5.0		ug/L			02/04/14 06:08	5
Chlorobenzene	ND		5.0		ug/L			02/04/14 06:08	5
Chlorobromomethane	ND		5.0		ug/L			02/04/14 06:08	5
Chlorodibromomethane	ND		2.5		ug/L			02/04/14 06:08	5
Chloroethane	ND		10		ug/L			02/04/14 06:08	5
Chloroform	ND		5.0		ug/L			02/04/14 06:08	5
Chloromethane	ND		10		ug/L			02/04/14 06:08	5
cis-1,2-Dichloroethene	**400**		5.0		ug/L			02/04/14 06:08	5
cis-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 06:08	5
Dichlorobromomethane	ND		2.5		ug/L			02/04/14 06:08	5
Dichlorodifluoromethane	ND	*	5.0		ug/L			02/04/14 06:08	5
Ethyl ether	ND		5.0		ug/L			02/04/14 06:08	5
Ethylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
Ethylene Dibromide	ND		5.0		ug/L			02/04/14 06:08	5
Hexachlorobutadiene	ND		2.0		ug/L			02/04/14 06:08	5
Isopropyl ether	ND		50		ug/L			02/04/14 06:08	5
Isopropylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
Methyl tert-butyl ether	ND		5.0		ug/L			02/04/14 06:08	5
Methylene Chloride	ND		5.0		ug/L			02/04/14 06:08	5
m-Xylene & p-Xylene	ND		10		ug/L			02/04/14 06:08	5
Naphthalene	ND		25		ug/L			02/04/14 06:08	5
n-Butylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
N-Propylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
o-Xylene	ND		5.0		ug/L			02/04/14 06:08	5
sec-Butylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
Styrene	ND		5.0		ug/L			02/04/14 06:08	5
Tert-amyl methyl ether	ND		25		ug/L			02/04/14 06:08	5
Tert-butyl ethyl ether	ND		25		ug/L			02/04/14 06:08	5
tert-Butylbenzene	ND		5.0		ug/L			02/04/14 06:08	5
Tetrachloroethene	ND		5.0		ug/L			02/04/14 06:08	5
Tetrahydrofuran	ND	*	50		ug/L			02/04/14 06:08	5
Toluene	**170**		5.0		ug/L			02/04/14 06:08	5

Client Sample ID: REW-6-20140130-01

Lab Sample ID: 480-54029-6

Date Collected: 01/30/14 09:55

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		5.0		ug/L			02/04/14 06:08	5
trans-1,3-Dichloropropene	ND		2.0		ug/L			02/04/14 06:08	5
Trichloroethene	**65**		5.0		ug/L			02/04/14 06:08	5
Trichlorofluoromethane	ND		5.0		ug/L			02/04/14 06:08	5
Vinyl chloride	**19**		5.0		ug/L			02/04/14 06:08	5
Dibromomethane	ND		5.0		ug/L			02/04/14 06:08	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/04/14 06:08*	*5*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 06:08*	*5*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/04/14 06:08*	*5*

Client Sample ID: REW-7-20140130-01

Lab Sample ID: 480-54029-7

Date Collected: 01/30/14 10:50

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10		ug/L			02/04/14 06:33	10
1,1,1-Trichloroethane	ND		10		ug/L			02/04/14 06:33	10
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			02/04/14 06:33	10
1,1,2-Trichloroethane	ND		10		ug/L			02/04/14 06:33	10
1,1-Dichloroethane	ND		10		ug/L			02/04/14 06:33	10
1,1-Dichloroethene	ND		10		ug/L			02/04/14 06:33	10
1,1-Dichloropropene	ND		10		ug/L			02/04/14 06:33	10
1,2,3-Trichlorobenzene	ND		10		ug/L			02/04/14 06:33	10
1,2,3-Trichloropropane	ND		10		ug/L			02/04/14 06:33	10
1,2,4-Trichlorobenzene	ND		10		ug/L			02/04/14 06:33	10
1,2,4-Trimethylbenzene	ND		10		ug/L			02/04/14 06:33	10
1,2-Dibromo-3-Chloropropane	ND		50		ug/L			02/04/14 06:33	10
1,2-Dichlorobenzene	ND		10		ug/L			02/04/14 06:33	10
1,2-Dichloroethane	ND		10		ug/L			02/04/14 06:33	10
1,2-Dichloropropane	ND		10		ug/L			02/04/14 06:33	10
1,3,5-Trimethylbenzene	ND		10		ug/L			02/04/14 06:33	10
1,3-Dichlorobenzene	ND		10		ug/L			02/04/14 06:33	10
1,3-Dichloropropane	ND		10		ug/L			02/04/14 06:33	10
1,4-Dichlorobenzene	ND		10		ug/L			02/04/14 06:33	10
1,4-Dioxane	ND		500		ug/L			02/04/14 06:33	10
2,2-Dichloropropane	ND		10		ug/L			02/04/14 06:33	10
2-Butanone (MEK)	ND		100		ug/L			02/04/14 06:33	10
2-Chlorotoluene	ND		10		ug/L			02/04/14 06:33	10
2-Hexanone	ND		100		ug/L			02/04/14 06:33	10
4-Chlorotoluene	ND		10		ug/L			02/04/14 06:33	10
4-Isopropyltoluene	ND		10		ug/L			02/04/14 06:33	10
4-Methyl-2-pentanone (MIBK)	ND		100		ug/L			02/04/14 06:33	10
Acetone	ND		500		ug/L			02/04/14 06:33	10
Benzene	ND		10		ug/L			02/04/14 06:33	10
Bromobenzene	ND		10		ug/L			02/04/14 06:33	10
Bromoform	ND		10		ug/L			02/04/14 06:33	10
Bromomethane	ND		20		ug/L			02/04/14 06:33	10

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-7-20140130-01
Date Collected: 01/30/14 10:50
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		100		ug/L			02/04/14 06:33	10
Carbon tetrachloride	ND		10		ug/L			02/04/14 06:33	10
Chlorobenzene	ND		10		ug/L			02/04/14 06:33	10
Chlorobromomethane	ND		10		ug/L			02/04/14 06:33	10
Chlorodibromomethane	ND		5.0		ug/L			02/04/14 06:33	10
Chloroethane	ND		20		ug/L			02/04/14 06:33	10
Chloroform	ND		10		ug/L			02/04/14 06:33	10
Chloromethane	ND		20		ug/L			02/04/14 06:33	10
cis-1,2-Dichloroethene	**730**		10		ug/L			02/04/14 06:33	10
cis-1,3-Dichloropropene	ND		4.0		ug/L			02/04/14 06:33	10
Dichlorobromomethane	ND		5.0		ug/L			02/04/14 06:33	10
Dichlorodifluoromethane	ND	*	10		ug/L			02/04/14 06:33	10
Ethyl ether	ND		10		ug/L			02/04/14 06:33	10
Ethylbenzene	ND		10		ug/L			02/04/14 06:33	10
Ethylene Dibromide	ND		10		ug/L			02/04/14 06:33	10
Hexachlorobutadiene	ND		4.0		ug/L			02/04/14 06:33	10
Isopropyl ether	ND		100		ug/L			02/04/14 06:33	10
Isopropylbenzene	ND		10		ug/L			02/04/14 06:33	10
Methyl tert-butyl ether	ND		10		ug/L			02/04/14 06:33	10
Methylene Chloride	ND		10		ug/L			02/04/14 06:33	10
m-Xylene & p-Xylene	ND		20		ug/L			02/04/14 06:33	10
Naphthalene	ND		50		ug/L			02/04/14 06:33	10
n-Butylbenzene	ND		10		ug/L			02/04/14 06:33	10
N-Propylbenzene	ND		10		ug/L			02/04/14 06:33	10
o-Xylene	ND		10		ug/L			02/04/14 06:33	10
sec-Butylbenzene	ND		10		ug/L			02/04/14 06:33	10
Styrene	ND		10		ug/L			02/04/14 06:33	10
Tert-amyl methyl ether	ND		50		ug/L			02/04/14 06:33	10
Tert-butyl ethyl ether	ND		50		ug/L			02/04/14 06:33	10
tert-Butylbenzene	ND		10		ug/L			02/04/14 06:33	10
Tetrachloroethene	ND		10		ug/L			02/04/14 06:33	10
Tetrahydrofuran	ND	*	100		ug/L			02/04/14 06:33	10
Toluene	ND		10		ug/L			02/04/14 06:33	10
trans-1,2-Dichloroethene	ND		10		ug/L			02/04/14 06:33	10
trans-1,3-Dichloropropene	ND		4.0		ug/L			02/04/14 06:33	10
Trichloroethene	**100**		10		ug/L			02/04/14 06:33	10
Trichlorofluoromethane	ND		10		ug/L			02/04/14 06:33	10
Vinyl chloride	**110**		10		ug/L			02/04/14 06:33	10
Dibromomethane	ND		10		ug/L			02/04/14 06:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*02/04/14 06:33*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*02/04/14 06:33*	*10*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*02/04/14 06:33*	*10*

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-8-20140130-01
Date Collected: 01/30/14 12:55
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-8
Matrix: Water

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			02/04/14 14:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/04/14 14:59	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/14 14:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/04/14 14:59	1
1,1-Dichloroethane	ND		1.0		ug/L			02/04/14 14:59	1
1,1-Dichloroethene	ND		1.0		ug/L			02/04/14 14:59	1
1,1-Dichloropropene	ND		1.0		ug/L			02/04/14 14:59	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/04/14 14:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/04/14 14:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,2-Dichloroethane	ND		1.0		ug/L			02/04/14 14:59	1
1,2-Dichloropropane	ND		1.0		ug/L			02/04/14 14:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,3-Dichlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/14 14:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
1,4-Dioxane	ND		50		ug/L			02/04/14 14:59	1
2,2-Dichloropropane	ND		1.0		ug/L			02/04/14 14:59	1
2-Butanone (MEK)	ND		10		ug/L			02/04/14 14:59	1
2-Chlorotoluene	ND		1.0		ug/L			02/04/14 14:59	1
2-Hexanone	ND		10		ug/L			02/04/14 14:59	1
4-Chlorotoluene	ND		1.0		ug/L			02/04/14 14:59	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/14 14:59	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/04/14 14:59	1
Acetone	ND		50		ug/L			02/04/14 14:59	1
Benzene	ND		1.0		ug/L			02/04/14 14:59	1
Bromobenzene	ND		1.0		ug/L			02/04/14 14:59	1
Bromoform	ND		1.0		ug/L			02/04/14 14:59	1
Bromomethane	ND		2.0		ug/L			02/04/14 14:59	1
Carbon disulfide	ND		10		ug/L			02/04/14 14:59	1
Carbon tetrachloride	ND		1.0		ug/L			02/04/14 14:59	1
Chlorobenzene	ND		1.0		ug/L			02/04/14 14:59	1
Chlorobromomethane	ND		1.0		ug/L			02/04/14 14:59	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/14 14:59	1
Chloroethane	ND		2.0		ug/L			02/04/14 14:59	1
Chloroform	ND		1.0		ug/L			02/04/14 14:59	1
Chloromethane	ND		2.0		ug/L			02/04/14 14:59	1
cis-1,2-Dichloroethene	**17**		1.0		ug/L			02/04/14 14:59	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 14:59	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/14 14:59	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			02/04/14 14:59	1
Ethyl ether	ND		1.0		ug/L			02/04/14 14:59	1
Ethylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
Ethylene Dibromide	ND		1.0		ug/L			02/04/14 14:59	1
Hexachlorobutadiene	ND		0.40		ug/L			02/04/14 14:59	1
Isopropyl ether	ND		10		ug/L			02/04/14 14:59	1

Client Sample ID: REW-8-20140130-01

Lab Sample ID: 480-54029-8

Date Collected: 01/30/14 12:55

Matrix: Water

Date Received: 01/31/14 00:30

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			02/04/14 14:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/04/14 14:59	1
Methylene Chloride	ND		1.0		ug/L			02/04/14 14:59	1
m-Xylene & p-Xylene	ND		2.0		ug/L			02/04/14 14:59	1
Naphthalene	ND		5.0		ug/L			02/04/14 14:59	1
n-Butylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
N-Propylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
o-Xylene	ND		1.0		ug/L			02/04/14 14:59	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
Styrene	ND		1.0		ug/L			02/04/14 14:59	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/04/14 14:59	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/04/14 14:59	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/14 14:59	1
Tetrachloroethene	ND		1.0		ug/L			02/04/14 14:59	1
Tetrahydrofuran	ND	*	10		ug/L			02/04/14 14:59	1
Toluene	**1.0**		1.0		ug/L			02/04/14 14:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 14:59	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 14:59	1
Trichloroethene	**1.5**		1.0		ug/L			02/04/14 14:59	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/14 14:59	1
Vinyl chloride	**7.1**		1.0		ug/L			02/04/14 14:59	1
Dibromomethane	ND		1.0		ug/L			02/04/14 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 14:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 14:59*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*02/04/14 14:59*	*1*

Client Sample ID: REW-9-20140130-01

Lab Sample ID: 480-54029-9

Date Collected: 01/30/14 12:15

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			02/04/14 07:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/04/14 07:20	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/14 07:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/04/14 07:20	1
1,1-Dichloroethane	ND		1.0		ug/L			02/04/14 07:20	1
1,1-Dichloroethene	ND		1.0		ug/L			02/04/14 07:20	1
1,1-Dichloropropene	ND		1.0		ug/L			02/04/14 07:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/04/14 07:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/04/14 07:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,2-Dichloroethane	ND		1.0		ug/L			02/04/14 07:20	1
1,2-Dichloropropane	ND		1.0		ug/L			02/04/14 07:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/04/14 07:20	1

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-9-20140130-01
Date Collected: 01/30/14 12:15
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/14 07:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
1,4-Dioxane	ND		50		ug/L			02/04/14 07:20	1
2,2-Dichloropropane	ND		1.0		ug/L			02/04/14 07:20	1
2-Butanone (MEK)	**78**		10		ug/L			02/04/14 07:20	1
2-Chlorotoluene	ND		1.0		ug/L			02/04/14 07:20	1
2-Hexanone	ND		10		ug/L			02/04/14 07:20	1
4-Chlorotoluene	ND		1.0		ug/L			02/04/14 07:20	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/14 07:20	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/04/14 07:20	1
Acetone	ND		50		ug/L			02/04/14 07:20	1
Benzene	ND		1.0		ug/L			02/04/14 07:20	1
Bromobenzene	ND		1.0		ug/L			02/04/14 07:20	1
Bromoform	ND		1.0		ug/L			02/04/14 07:20	1
Bromomethane	ND		2.0		ug/L			02/04/14 07:20	1
Carbon disulfide	ND		10		ug/L			02/04/14 07:20	1
Carbon tetrachloride	ND		1.0		ug/L			02/04/14 07:20	1
Chlorobenzene	ND		1.0		ug/L			02/04/14 07:20	1
Chlorobromomethane	ND		1.0		ug/L			02/04/14 07:20	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/14 07:20	1
Chloroethane	ND		2.0		ug/L			02/04/14 07:20	1
Chloroform	ND		1.0		ug/L			02/04/14 07:20	1
Chloromethane	ND		2.0		ug/L			02/04/14 07:20	1
cis-1,2-Dichloroethene	**67**		1.0		ug/L			02/04/14 07:20	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 07:20	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/14 07:20	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			02/04/14 07:20	1
Ethyl ether	ND		1.0		ug/L			02/04/14 07:20	1
Ethylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
Ethylene Dibromide	ND		1.0		ug/L			02/04/14 07:20	1
Hexachlorobutadiene	ND		0.40		ug/L			02/04/14 07:20	1
Isopropyl ether	ND		10		ug/L			02/04/14 07:20	1
Isopropylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/04/14 07:20	1
Methylene Chloride	ND		1.0		ug/L			02/04/14 07:20	1
m-Xylene & p-Xylene	**3.5**		2.0		ug/L			02/04/14 07:20	1
Naphthalene	ND		5.0		ug/L			02/04/14 07:20	1
n-Butylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
N-Propylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
o-Xylene	ND		1.0		ug/L			02/04/14 07:20	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
Styrene	ND		1.0		ug/L			02/04/14 07:20	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/04/14 07:20	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/04/14 07:20	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/14 07:20	1
Tetrachloroethene	ND		1.0		ug/L			02/04/14 07:20	1
Tetrahydrofuran	ND	*	10		ug/L			02/04/14 07:20	1
Toluene	**46**		1.0		ug/L			02/04/14 07:20	1

Client Sample ID: REW-9-20140130-01 — **Lab Sample ID: 480-54029-9**
Date Collected: 01/30/14 12:15 — **Matrix: Water**
Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 07:20	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 07:20	1
Trichloroethene	ND		1.0		ug/L			02/04/14 07:20	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/14 07:20	1
Vinyl chloride	**22**		1.0		ug/L			02/04/14 07:20	1
Dibromomethane	ND		1.0		ug/L			02/04/14 07:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 07:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 07:20*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*02/04/14 07:20*	*1*

Client Sample ID: REW-12-20140130-01 — **Lab Sample ID: 480-54029-10**
Date Collected: 01/30/14 09:10 — **Matrix: Water**
Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		4.0		ug/L			02/04/14 07:44	4
1,1,1-Trichloroethane	ND		4.0		ug/L			02/04/14 07:44	4
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			02/04/14 07:44	4
1,1,2-Trichloroethane	ND		4.0		ug/L			02/04/14 07:44	4
1,1-Dichloroethane	ND		4.0		ug/L			02/04/14 07:44	4
1,1-Dichloroethene	ND		4.0		ug/L			02/04/14 07:44	4
1,1-Dichloropropene	ND		4.0		ug/L			02/04/14 07:44	4
1,2,3-Trichlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,2,3-Trichloropropane	ND		4.0		ug/L			02/04/14 07:44	4
1,2,4-Trichlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,2,4-Trimethylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,2-Dibromo-3-Chloropropane	ND		20		ug/L			02/04/14 07:44	4
1,2-Dichlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,2-Dichloroethane	ND		4.0		ug/L			02/04/14 07:44	4
1,2-Dichloropropane	ND		4.0		ug/L			02/04/14 07:44	4
1,3,5-Trimethylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,3-Dichlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,3-Dichloropropane	ND		4.0		ug/L			02/04/14 07:44	4
1,4-Dichlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
1,4-Dioxane	ND		200		ug/L			02/04/14 07:44	4
2,2-Dichloropropane	ND		4.0		ug/L			02/04/14 07:44	4
2-Butanone (MEK)	ND		40		ug/L			02/04/14 07:44	4
2-Chlorotoluene	ND		4.0		ug/L			02/04/14 07:44	4
2-Hexanone	ND		40		ug/L			02/04/14 07:44	4
4-Chlorotoluene	ND		4.0		ug/L			02/04/14 07:44	4
4-Isopropyltoluene	ND		4.0		ug/L			02/04/14 07:44	4
4-Methyl-2-pentanone (MIBK)	ND		40		ug/L			02/04/14 07:44	4
Acetone	ND		200		ug/L			02/04/14 07:44	4
Benzene	ND		4.0		ug/L			02/04/14 07:44	4
Bromobenzene	ND		4.0		ug/L			02/04/14 07:44	4
Bromoform	ND		4.0		ug/L			02/04/14 07:44	4
Bromomethane	ND		8.0		ug/L			02/04/14 07:44	4

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-12-20140130-01
Date Collected: 01/30/14 09:10
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		40		ug/L			02/04/14 07:44	4
Carbon tetrachloride	ND		4.0		ug/L			02/04/14 07:44	4
Chlorobenzene	ND		4.0		ug/L			02/04/14 07:44	4
Chlorobromomethane	ND		4.0		ug/L			02/04/14 07:44	4
Chlorodibromomethane	ND		2.0		ug/L			02/04/14 07:44	4
Chloroethane	ND		8.0		ug/L			02/04/14 07:44	4
Chloroform	ND		4.0		ug/L			02/04/14 07:44	4
Chloromethane	ND		8.0		ug/L			02/04/14 07:44	4
cis-1,2-Dichloroethene	**340**		4.0		ug/L			02/04/14 07:44	4
cis-1,3-Dichloropropene	ND		1.6		ug/L			02/04/14 07:44	4
Dichlorobromomethane	ND		2.0		ug/L			02/04/14 07:44	4
Dichlorodifluoromethane	ND	*	4.0		ug/L			02/04/14 07:44	4
Ethyl ether	ND		4.0		ug/L			02/04/14 07:44	4
Ethylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
Ethylene Dibromide	ND		4.0		ug/L			02/04/14 07:44	4
Hexachlorobutadiene	ND		1.6		ug/L			02/04/14 07:44	4
Isopropyl ether	ND		40		ug/L			02/04/14 07:44	4
Isopropylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
Methyl tert-butyl ether	ND		4.0		ug/L			02/04/14 07:44	4
Methylene Chloride	ND		4.0		ug/L			02/04/14 07:44	4
m-Xylene & p-Xylene	ND		8.0		ug/L			02/04/14 07:44	4
Naphthalene	ND		20		ug/L			02/04/14 07:44	4
n-Butylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
N-Propylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
o-Xylene	ND		4.0		ug/L			02/04/14 07:44	4
sec-Butylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
Styrene	ND		4.0		ug/L			02/04/14 07:44	4
Tert-amyl methyl ether	ND		20		ug/L			02/04/14 07:44	4
Tert-butyl ethyl ether	ND		20		ug/L			02/04/14 07:44	4
tert-Butylbenzene	ND		4.0		ug/L			02/04/14 07:44	4
Tetrachloroethene	ND		4.0		ug/L			02/04/14 07:44	4
Tetrahydrofuran	ND	*	40		ug/L			02/04/14 07:44	4
Toluene	**23**		4.0		ug/L			02/04/14 07:44	4
trans-1,2-Dichloroethene	ND		4.0		ug/L			02/04/14 07:44	4
trans-1,3-Dichloropropene	ND		1.6		ug/L			02/04/14 07:44	4
Trichloroethene	**52**		4.0		ug/L			02/04/14 07:44	4
Trichlorofluoromethane	ND		4.0		ug/L			02/04/14 07:44	4
Vinyl chloride	**58**		4.0		ug/L			02/04/14 07:44	4
Dibromomethane	ND		4.0		ug/L			02/04/14 07:44	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 07:44*	*4*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*02/04/14 07:44*	*4*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*02/04/14 07:44*	*4*

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: DupX-20140130-01
Date Collected: 01/30/14 00:00
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		20		ug/L			02/04/14 15:23	20
1,1,1-Trichloroethane	ND		20		ug/L			02/04/14 15:23	20
1,1,2,2-Tetrachloroethane	ND		10		ug/L			02/04/14 15:23	20
1,1,2-Trichloroethane	ND		20		ug/L			02/04/14 15:23	20
1,1-Dichloroethane	ND		20		ug/L			02/04/14 15:23	20
1,1-Dichloroethene	ND		20		ug/L			02/04/14 15:23	20
1,1-Dichloropropene	ND		20		ug/L			02/04/14 15:23	20
1,2,3-Trichlorobenzene	ND		20		ug/L			02/04/14 15:23	20
1,2,3-Trichloropropane	ND		20		ug/L			02/04/14 15:23	20
1,2,4-Trichlorobenzene	ND		20		ug/L			02/04/14 15:23	20
1,2,4-Trimethylbenzene	ND		20		ug/L			02/04/14 15:23	20
1,2-Dibromo-3-Chloropropane	ND		100		ug/L			02/04/14 15:23	20
1,2-Dichlorobenzene	ND		20		ug/L			02/04/14 15:23	20
1,2-Dichloroethane	ND		20		ug/L			02/04/14 15:23	20
1,2-Dichloropropane	ND		20		ug/L			02/04/14 15:23	20
1,3,5-Trimethylbenzene	ND		20		ug/L			02/04/14 15:23	20
1,3-Dichlorobenzene	ND		20		ug/L			02/04/14 15:23	20
1,3-Dichloropropane	ND		20		ug/L			02/04/14 15:23	20
1,4-Dichlorobenzene	ND		20		ug/L			02/04/14 15:23	20
1,4-Dioxane	ND		1000		ug/L			02/04/14 15:23	20
2,2-Dichloropropane	ND		20		ug/L			02/04/14 15:23	20
2-Butanone (MEK)	ND		200		ug/L			02/04/14 15:23	20
2-Chlorotoluene	ND		20		ug/L			02/04/14 15:23	20
2-Hexanone	ND		200		ug/L			02/04/14 15:23	20
4-Chlorotoluene	ND		20		ug/L			02/04/14 15:23	20
4-Isopropyltoluene	ND		20		ug/L			02/04/14 15:23	20
4-Methyl-2-pentanone (MIBK)	ND		200		ug/L			02/04/14 15:23	20
Acetone	ND		1000		ug/L			02/04/14 15:23	20
Benzene	ND		20		ug/L			02/04/14 15:23	20
Bromobenzene	ND		20		ug/L			02/04/14 15:23	20
Bromoform	ND		20		ug/L			02/04/14 15:23	20
Bromomethane	ND		40		ug/L			02/04/14 15:23	20
Carbon disulfide	ND		200		ug/L			02/04/14 15:23	20
Carbon tetrachloride	ND		20		ug/L			02/04/14 15:23	20
Chlorobenzene	ND		20		ug/L			02/04/14 15:23	20
Chlorobromomethane	ND		20		ug/L			02/04/14 15:23	20
Chlorodibromomethane	ND		10		ug/L			02/04/14 15:23	20
Chloroethane	ND		40		ug/L			02/04/14 15:23	20
Chloroform	ND		20		ug/L			02/04/14 15:23	20
Chloromethane	ND		40		ug/L			02/04/14 15:23	20
cis-1,2-Dichloroethene	ND		20		ug/L			02/04/14 15:23	20
cis-1,3-Dichloropropene	ND		8.0		ug/L			02/04/14 15:23	20
Dichlorobromomethane	ND		10		ug/L			02/04/14 15:23	20
Dichlorodifluoromethane	ND	*	20		ug/L			02/04/14 15:23	20
Ethyl ether	ND		20		ug/L			02/04/14 15:23	20
Ethylbenzene	ND		20		ug/L			02/04/14 15:23	20
Ethylene Dibromide	ND		20		ug/L			02/04/14 15:23	20
Hexachlorobutadiene	ND		8.0		ug/L			02/04/14 15:23	20
Isopropyl ether	ND		200		ug/L			02/04/14 15:23	20

Client Sample ID: DupX-20140130-01

Lab Sample ID: 480-54029-11

Date Collected: 01/30/14 00:00

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		20		ug/L			02/04/14 15:23	20
Methyl tert-butyl ether	ND		20		ug/L			02/04/14 15:23	20
Methylene Chloride	ND		20		ug/L			02/04/14 15:23	20
m-Xylene & p-Xylene	**67**		40		ug/L			02/04/14 15:23	20
Naphthalene	ND		100		ug/L			02/04/14 15:23	20
n-Butylbenzene	ND		20		ug/L			02/04/14 15:23	20
N-Propylbenzene	ND		20		ug/L			02/04/14 15:23	20
o-Xylene	ND		20		ug/L			02/04/14 15:23	20
sec-Butylbenzene	ND		20		ug/L			02/04/14 15:23	20
Styrene	ND		20		ug/L			02/04/14 15:23	20
Tert-amyl methyl ether	ND		100		ug/L			02/04/14 15:23	20
Tert-butyl ethyl ether	ND		100		ug/L			02/04/14 15:23	20
tert-Butylbenzene	ND		20		ug/L			02/04/14 15:23	20
Tetrachloroethene	ND		20		ug/L			02/04/14 15:23	20
Tetrahydrofuran	ND	*	200		ug/L			02/04/14 15:23	20
Toluene	**1200**		20		ug/L			02/04/14 15:23	20
trans-1,2-Dichloroethene	ND		20		ug/L			02/04/14 15:23	20
trans-1,3-Dichloropropene	ND		8.0		ug/L			02/04/14 15:23	20
Trichloroethene	ND		20		ug/L			02/04/14 15:23	20
Trichlorofluoromethane	ND		20		ug/L			02/04/14 15:23	20
Vinyl chloride	**250**		20		ug/L			02/04/14 15:23	20
Dibromomethane	ND		20		ug/L			02/04/14 15:23	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*70 - 130*		*02/04/14 15:23*	*20*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*02/04/14 15:23*	*20*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*02/04/14 15:23*	*20*

Client Sample ID: Trip Blank

Lab Sample ID: 480-54029-12

Date Collected: 01/30/14 00:00

Matrix: Water

Date Received: 01/31/14 00:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			02/04/14 15:47	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/04/14 15:47	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/14 15:47	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/04/14 15:47	1
1,1-Dichloroethane	ND		1.0		ug/L			02/04/14 15:47	1
1,1-Dichloroethene	ND		1.0		ug/L			02/04/14 15:47	1
1,1-Dichloropropene	ND		1.0		ug/L			02/04/14 15:47	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/04/14 15:47	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/04/14 15:47	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,2-Dichloroethane	ND		1.0		ug/L			02/04/14 15:47	1
1,2-Dichloropropane	ND		1.0		ug/L			02/04/14 15:47	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/04/14 15:47	1

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: Trip Blank
Date Collected: 01/30/14 00:00
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/14 15:47	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
1,4-Dioxane	ND		50		ug/L			02/04/14 15:47	1
2,2-Dichloropropane	ND		1.0		ug/L			02/04/14 15:47	1
2-Butanone (MEK)	ND		10		ug/L			02/04/14 15:47	1
2-Chlorotoluene	ND		1.0		ug/L			02/04/14 15:47	1
2-Hexanone	ND		10		ug/L			02/04/14 15:47	1
4-Chlorotoluene	ND		1.0		ug/L			02/04/14 15:47	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/14 15:47	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/04/14 15:47	1
Acetone	ND		50		ug/L			02/04/14 15:47	1
Benzene	ND		1.0		ug/L			02/04/14 15:47	1
Bromobenzene	ND		1.0		ug/L			02/04/14 15:47	1
Bromoform	ND		1.0		ug/L			02/04/14 15:47	1
Bromomethane	ND		2.0		ug/L			02/04/14 15:47	1
Carbon disulfide	ND		10		ug/L			02/04/14 15:47	1
Carbon tetrachloride	ND		1.0		ug/L			02/04/14 15:47	1
Chlorobenzene	ND		1.0		ug/L			02/04/14 15:47	1
Chlorobromomethane	ND		1.0		ug/L			02/04/14 15:47	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/14 15:47	1
Chloroethane	ND		2.0		ug/L			02/04/14 15:47	1
Chloroform	ND		1.0		ug/L			02/04/14 15:47	1
Chloromethane	ND		2.0		ug/L			02/04/14 15:47	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 15:47	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 15:47	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/14 15:47	1
Dichlorodifluoromethane	ND	*	1.0		ug/L			02/04/14 15:47	1
Ethyl ether	ND		1.0		ug/L			02/04/14 15:47	1
Ethylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
Ethylene Dibromide	ND		1.0		ug/L			02/04/14 15:47	1
Hexachlorobutadiene	ND		0.40		ug/L			02/04/14 15:47	1
Isopropyl ether	ND		10		ug/L			02/04/14 15:47	1
Isopropylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/04/14 15:47	1
Methylene Chloride	ND		1.0		ug/L			02/04/14 15:47	1
m-Xylene & p-Xylene	ND		2.0		ug/L			02/04/14 15:47	1
Naphthalene	ND		5.0		ug/L			02/04/14 15:47	1
n-Butylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
N-Propylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
o-Xylene	ND		1.0		ug/L			02/04/14 15:47	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
Styrene	ND		1.0		ug/L			02/04/14 15:47	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/04/14 15:47	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/04/14 15:47	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/14 15:47	1
Tetrachloroethene	ND		1.0		ug/L			02/04/14 15:47	1
Tetrahydrofuran	ND	*	10		ug/L			02/04/14 15:47	1
Toluene	ND		1.0		ug/L			02/04/14 15:47	1

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: Trip Blank
Date Collected: 01/30/14 00:00
Date Received: 01/31/14 00:30

Lab Sample ID: 480-54029-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 15:47	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 15:47	1
Trichloroethene	ND		1.0		ug/L			02/04/14 15:47	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/14 15:47	1
Vinyl chloride	ND		1.0		ug/L			02/04/14 15:47	1
Dibromomethane	ND		1.0		ug/L			02/04/14 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*70 - 130*		*02/04/14 15:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/04/14 15:47*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*02/04/14 15:47*	*1*

Surrogate Summary

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

TestAmerica Job ID: 480-54029-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TOL	12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
480-54029-1	MW-267S-20140130-01	102	98	104
480-54029-2	MW-267M-20140130-01	102	100	103
480-54029-3	MW-268M-20140130-01	106	100	109
480-54029-3 - DL	MW-268M-20140130-01	103	98	102
480-54029-3 MS	MW-268M-20140130-01	100	96	107
480-54029-3 MSD	MW-268M-20140130-01	100	97	106
480-54029-4	MW-561-20140130-01	101	98	104
480-54029-4 - DL	MW-561-20140130-01	101	100	105
480-54029-5	MW-553-20140130-01	102	99	103
480-54029-6	REW-6-20140130-01	102	98	104
480-54029-7	REW-7-20140130-01	103	96	104
480-54029-8	REW-8-20140130-01	101	98	105
480-54029-9	REW-9-20140130-01	101	98	106
480-54029-10	REW-12-20140130-01	101	101	108
480-54029-11	DupX-20140130-01	103	99	106
480-54029-12	Trip Blank	101	98	101
LCS 480-164338/4	Lab Control Sample	103	97	105
LCS 480-164408/4	Lab Control Sample	102	96	109
LCS 480-164532/4	Lab Control Sample	100	99	107
LCSD 480-164338/5	Lab Control Sample Dup	103	97	106
LCSD 480-164408/5	Lab Control Sample Dup	101	96	109
LCSD 480-164532/5	Lab Control Sample Dup	102	98	106
MB 480-164338/7	Method Blank	104	98	103
MB 480-164408/7	Method Blank	102	97	103
MB 480-164532/7	Method Blank	104	100	105

Surrogate Legend

TOL = Toluene-d8 (Surr)

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

BFB = 4-Bromofluorobenzene (Surr)

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

Lab Sample ID: MB 480-164338/7
Matrix: Water
Analysis Batch: 164338

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			02/03/14 23:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/03/14 23:58	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/03/14 23:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/03/14 23:58	1
1,1-Dichloroethane	ND		1.0		ug/L			02/03/14 23:58	1
1,1-Dichloroethene	ND		1.0		ug/L			02/03/14 23:58	1
1,1-Dichloropropene	ND		1.0		ug/L			02/03/14 23:58	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/03/14 23:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/03/14 23:58	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,2-Dichloroethane	ND		1.0		ug/L			02/03/14 23:58	1
1,2-Dichloropropane	ND		1.0		ug/L			02/03/14 23:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,3-Dichloropropane	ND		1.0		ug/L			02/03/14 23:58	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
1,4-Dioxane	ND		50		ug/L			02/03/14 23:58	1
2,2-Dichloropropane	ND		1.0		ug/L			02/03/14 23:58	1
2-Butanone (MEK)	ND		10		ug/L			02/03/14 23:58	1
2-Chlorotoluene	ND		1.0		ug/L			02/03/14 23:58	1
2-Hexanone	ND		10		ug/L			02/03/14 23:58	1
4-Chlorotoluene	ND		1.0		ug/L			02/03/14 23:58	1
4-Isopropyltoluene	ND		1.0		ug/L			02/03/14 23:58	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/03/14 23:58	1
Acetone	ND		50		ug/L			02/03/14 23:58	1
Benzene	ND		1.0		ug/L			02/03/14 23:58	1
Bromobenzene	ND		1.0		ug/L			02/03/14 23:58	1
Bromoform	ND		1.0		ug/L			02/03/14 23:58	1
Bromomethane	ND		2.0		ug/L			02/03/14 23:58	1
Carbon disulfide	ND		10		ug/L			02/03/14 23:58	1
Carbon tetrachloride	ND		1.0		ug/L			02/03/14 23:58	1
Chlorobenzene	ND		1.0		ug/L			02/03/14 23:58	1
Chlorobromomethane	ND		1.0		ug/L			02/03/14 23:58	1
Chlorodibromomethane	ND		0.50		ug/L			02/03/14 23:58	1
Chloroethane	ND		2.0		ug/L			02/03/14 23:58	1
Chloroform	ND		1.0		ug/L			02/03/14 23:58	1
Chloromethane	ND		2.0		ug/L			02/03/14 23:58	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			02/03/14 23:58	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/03/14 23:58	1
Dichlorobromomethane	ND		0.50		ug/L			02/03/14 23:58	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/03/14 23:58	1
Ethyl ether	ND		1.0		ug/L			02/03/14 23:58	1
Ethylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
Ethylene Dibromide	ND		1.0		ug/L			02/03/14 23:58	1
Hexachlorobutadiene	ND		0.40		ug/L			02/03/14 23:58	1

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

Lab Sample ID: MB 480-164338/7
Matrix: Water
Analysis Batch: 164338

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			02/03/14 23:58	1
Isopropylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/03/14 23:58	1
Methylene Chloride	ND		1.0		ug/L			02/03/14 23:58	1
m-Xylene & p-Xylene	ND		2.0		ug/L			02/03/14 23:58	1
Naphthalene	ND		5.0		ug/L			02/03/14 23:58	1
n-Butylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
N-Propylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
o-Xylene	ND		1.0		ug/L			02/03/14 23:58	1
sec-Butylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
Styrene	ND		1.0		ug/L			02/03/14 23:58	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/03/14 23:58	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/03/14 23:58	1
tert-Butylbenzene	ND		1.0		ug/L			02/03/14 23:58	1
Tetrachloroethene	ND		1.0		ug/L			02/03/14 23:58	1
Tetrahydrofuran	ND		10		ug/L			02/03/14 23:58	1
Toluene	ND		1.0		ug/L			02/03/14 23:58	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/03/14 23:58	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/03/14 23:58	1
Trichloroethene	ND		1.0		ug/L			02/03/14 23:58	1
Trichlorofluoromethane	ND		1.0		ug/L			02/03/14 23:58	1
Vinyl chloride	ND		1.0		ug/L			02/03/14 23:58	1
Dibromomethane	ND		1.0		ug/L			02/03/14 23:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*02/03/14 23:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*02/03/14 23:58*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*02/03/14 23:58*	*1*

Lab Sample ID: LCS 480-164338/4
Matrix: Water
Analysis Batch: 164338

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	27.1		ug/L		108	70 - 130
1,1,1-Trichloroethane	25.0	26.0		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	70 - 130
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	70 - 130
1,1-Dichloroethane	25.0	25.8		ug/L		103	70 - 130
1,1-Dichloroethene	25.0	25.5		ug/L		102	70 - 130
1,1-Dichloropropene	25.0	25.8		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	28.5		ug/L		114	70 - 130
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	70 - 130
1,2,4-Trichlorobenzene	25.0	27.9		ug/L		112	70 - 130
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		101	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		100	70 - 130
1,2-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	25.0		ug/L		100	70 - 130

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

Lab Sample ID: LCS 480-164338/4
Matrix: Water
Analysis Batch: 164338

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	26.2		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	24.9		ug/L		100	70 - 130
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	70 - 130
1,4-Dioxane	500	501		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	25.9		ug/L		103	70 - 130
2-Butanone (MEK)	125	136		ug/L		108	70 - 130
2-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
2-Hexanone	125	132		ug/L		105	70 - 130
4-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130
4-Isopropyltoluene	25.0	27.0		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	70 - 130
Acetone	125	134		ug/L		107	70 - 130
Benzene	25.0	25.6		ug/L		102	70 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Bromoform	25.0	26.3		ug/L		105	70 - 130
Bromomethane	25.0	24.2		ug/L		97	70 - 130
Carbon disulfide	25.0	25.8		ug/L		103	70 - 130
Carbon tetrachloride	25.0	26.9		ug/L		108	70 - 130
Chlorobenzene	25.0	27.0		ug/L		108	70 - 130
Chlorobromomethane	25.0	26.5		ug/L		106	70 - 130
Chlorodibromomethane	24.5	25.9		ug/L		106	70 - 130
Chloroethane	25.0	25.5		ug/L		102	70 - 130
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	20.8		ug/L		83	70 - 130
cis-1,2-Dichloroethene	25.0	26.6		ug/L		107	70 - 130
cis-1,3-Dichloropropene	25.0	26.6		ug/L		106	70 - 130
Dichlorobromomethane	25.0	25.1		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	16.1	*	ug/L		64	70 - 130
Ethyl ether	25.0	25.8		ug/L		103	70 - 130
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130
Ethylene Dibromide	25.0	24.7		ug/L		99	70 - 130
Hexachlorobutadiene	25.0	26.9		ug/L		107	70 - 130
Isopropyl ether	25.0	25.7		ug/L		103	70 - 130
Isopropylbenzene	25.0	25.4		ug/L		102	70 - 130
Methyl tert-butyl ether	25.0	24.6		ug/L		98	70 - 130
Methylene Chloride	25.0	24.6		ug/L		98	70 - 130
m-Xylene & p-Xylene	25.0	24.8		ug/L		99	70 - 130
Naphthalene	25.0	28.0		ug/L		112	70 - 130
n-Butylbenzene	25.0	27.2		ug/L		109	70 - 130
N-Propylbenzene	25.0	26.2		ug/L		105	70 - 130
o-Xylene	25.0	25.0		ug/L		100	70 - 130
sec-Butylbenzene	25.0	25.6		ug/L		103	70 - 130
Styrene	25.0	25.4		ug/L		102	70 - 130
Tert-amyl methyl ether	25.0	25.1		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	24.2		ug/L		97	70 - 130
tert-Butylbenzene	25.0	28.1		ug/L		113	70 - 130

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

Lab Sample ID: LCS 480-164338/4
Matrix: Water
Analysis Batch: 164338

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	27.2		ug/L		109	70 - 130
Tetrahydrofuran	50.0	65.9	*	ug/L		132	70 - 130
Toluene	25.0	26.4		ug/L		106	70 - 130
trans-1,2-Dichloroethene	25.0	26.6		ug/L		107	70 - 130
trans-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 130
Trichloroethene	25.0	27.1		ug/L		108	70 - 130
Trichlorofluoromethane	25.0	24.5		ug/L		98	70 - 130
Vinyl chloride	25.0	21.5		ug/L		86	70 - 130
Dibromomethane	25.0	25.6		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 480-164338/5
Matrix: Water
Analysis Batch: 164338

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.6		ug/L		106	70 - 130	2	20
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	70 - 130	2	20
1,1,2,2-Tetrachloroethane	25.0	25.3		ug/L		101	70 - 130	2	20
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130	1	20
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130	1	20
1,1-Dichloroethene	25.0	25.0		ug/L		100	70 - 130	2	20
1,1-Dichloropropene	25.0	25.8		ug/L		103	70 - 130	0	20
1,2,3-Trichlorobenzene	25.0	28.1		ug/L		112	70 - 130	2	20
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	27.5		ug/L		110	70 - 130	1	20
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130	0	20
1,2-Dibromo-3-Chloropropane	25.0	25.9		ug/L		104	70 - 130	4	20
1,2-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	0	20
1,2-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	1	20
1,2-Dichloropropane	25.0	25.8		ug/L		103	70 - 130	2	20
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130	0	20
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130	0	20
1,3-Dichloropropane	25.0	24.7		ug/L		99	70 - 130	1	20
1,4-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	1	20
1,4-Dioxane	500	523		ug/L		105	70 - 130	4	20
2,2-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	6	20
2-Butanone (MEK)	125	144		ug/L		115	70 - 130	6	20
2-Chlorotoluene	25.0	25.9		ug/L		104	70 - 130	2	20
2-Hexanone	125	129		ug/L		103	70 - 130	2	20
4-Chlorotoluene	25.0	24.1		ug/L		96	70 - 130	2	20
4-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		99	70 - 130	1	20
Acetone	125	138		ug/L		111	70 - 130	3	20

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

Lab Sample ID: LCSD 480-164338/5
Matrix: Water
Analysis Batch: 164338

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	25.2		ug/L		101	70 - 130	1	20
Bromobenzene			25.0	26.3		ug/L		105	70 - 130	1	20
Bromoform			25.0	26.4		ug/L		105	70 - 130	0	20
Bromomethane			25.0	24.8		ug/L		99	70 - 130	3	20
Carbon disulfide			25.0	25.6		ug/L		102	70 - 130	1	20
Carbon tetrachloride			25.0	26.4		ug/L		105	70 - 130	2	20
Chlorobenzene			25.0	26.2		ug/L		105	70 - 130	3	20
Chlorobromomethane			25.0	25.8		ug/L		103	70 - 130	3	20
Chlorodibromomethane			24.5	25.9		ug/L		106	70 - 130	0	20
Chloroethane			25.0	24.8		ug/L		99	70 - 130	3	20
Chloroform			25.0	23.7		ug/L		95	70 - 130	2	20
Chloromethane			25.0	20.3		ug/L		81	70 - 130	2	20
cis-1,2-Dichloroethene			25.0	26.2		ug/L		105	70 - 130	2	20
cis-1,3-Dichloropropene			25.0	26.2		ug/L		105	70 - 130	2	20
Dichlorobromomethane			25.0	25.4		ug/L		102	70 - 130	1	20
Dichlorodifluoromethane			25.0	15.5	*	ug/L		62	70 - 130	4	20
Ethyl ether			25.0	26.1		ug/L		104	70 - 130	1	20
Ethylbenzene			25.0	26.0		ug/L		104	70 - 130	3	20
Ethylene Dibromide			25.0	24.1		ug/L		96	70 - 130	2	20
Hexachlorobutadiene			25.0	26.0		ug/L		104	70 - 130	3	20
Isopropyl ether			25.0	25.8		ug/L		103	70 - 130	0	20
Isopropylbenzene			25.0	24.9		ug/L		100	70 - 130	2	20
Methyl tert-butyl ether			25.0	24.5		ug/L		98	70 - 130	0	20
Methylene Chloride			25.0	23.8		ug/L		95	70 - 130	3	20
m-Xylene & p-Xylene			25.0	24.2		ug/L		97	70 - 130	2	20
Naphthalene			25.0	27.6		ug/L		110	70 - 130	1	20
n-Butylbenzene			25.0	26.8		ug/L		107	70 - 130	2	20
N-Propylbenzene			25.0	25.8		ug/L		103	70 - 130	2	20
o-Xylene			25.0	24.5		ug/L		98	70 - 130	2	20
sec-Butylbenzene			25.0	25.7		ug/L		103	70 - 130	0	20
Styrene			25.0	25.2		ug/L		101	70 - 130	1	20
Tert-amyl methyl ether			25.0	25.4		ug/L		102	70 - 130	1	20
Tert-butyl ethyl ether			25.0	24.4		ug/L		98	70 - 130	1	20
tert-Butylbenzene			25.0	27.2		ug/L		109	70 - 130	3	20
Tetrachloroethene			25.0	26.4		ug/L		106	70 - 130	3	20
Tetrahydrofuran			50.0	65.5	*	ug/L		131	70 - 130	1	20
Toluene			25.0	25.4		ug/L		102	70 - 130	4	20
trans-1,2-Dichloroethene			25.0	25.9		ug/L		104	70 - 130	3	20
trans-1,3-Dichloropropene			25.0	25.0		ug/L		100	70 - 130	2	20
Trichloroethene			25.0	26.4		ug/L		106	70 - 130	2	20
Trichlorofluoromethane			25.0	23.9		ug/L		96	70 - 130	3	20
Vinyl chloride			25.0	20.5		ug/L		82	70 - 130	5	20
Dibromomethane			25.0	26.2		ug/L		105	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: 480-54029-3 MS
Matrix: Water
Analysis Batch: 164338

Client Sample ID: MW-268M-20140130-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		625	647		ug/L		104	70 - 130
1,1,1-Trichloroethane	ND		625	632		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	ND		625	628		ug/L		100	70 - 130
1,1,2-Trichloroethane	ND		625	614		ug/L		98	70 - 130
1,1-Dichloroethane	ND		625	643		ug/L		101	70 - 130
1,1-Dichloroethene	ND		625	614		ug/L		98	70 - 130
1,1-Dichloropropene	ND		625	627		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	ND		625	665		ug/L		106	70 - 130
1,2,3-Trichloropropane	ND		625	623		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	ND		625	647		ug/L		104	70 - 130
1,2,4-Trimethylbenzene	ND		625	618		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	ND		625	615		ug/L		98	70 - 130
1,2-Dichlorobenzene	ND		625	654		ug/L		105	70 - 130
1,2-Dichloroethane	ND		625	612		ug/L		98	70 - 130
1,2-Dichloropropane	ND		625	633		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	ND		625	622		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		625	660		ug/L		106	70 - 130
1,3-Dichloropropane	ND		625	613		ug/L		98	70 - 130
1,4-Dichlorobenzene	ND		625	652		ug/L		104	70 - 130
1,4-Dioxane	ND		12500	13000		ug/L		104	70 - 130
2,2-Dichloropropane	ND		625	521		ug/L		83	70 - 130
2-Butanone (MEK)	ND		3130	5490	F1	ug/L		176	70 - 130
2-Chlorotoluene	ND		625	656		ug/L		105	70 - 130
2-Hexanone	ND		3130	3240		ug/L		104	70 - 130
4-Chlorotoluene	ND		625	601		ug/L		96	70 - 130
4-Isopropyltoluene	ND		625	666		ug/L		106	70 - 130
4-Methyl-2-pentanone (MIBK)	ND		3130	3120		ug/L		100	70 - 130
Acetone	ND		3130	3220		ug/L		103	70 - 130
Benzene	ND		625	620		ug/L		99	70 - 130
Bromobenzene	ND		625	653		ug/L		105	70 - 130
Bromoform	ND		625	520		ug/L		83	70 - 130
Bromomethane	ND		625	784		ug/L		125	70 - 130
Carbon disulfide	ND		625	564		ug/L		90	70 - 130
Carbon tetrachloride	ND		625	610		ug/L		98	70 - 130
Chlorobenzene	ND		625	656		ug/L		105	70 - 130
Chlorobromomethane	ND		625	637		ug/L		102	70 - 130
Chlorodibromomethane	ND		613	582		ug/L		95	70 - 130
Chloroethane	ND		625	743		ug/L		119	70 - 130
Chloroform	ND		625	585		ug/L		94	70 - 130
Chloromethane	ND		625	452		ug/L		72	70 - 130
cis-1,2-Dichloroethene	2500		625	2830	E 4	ug/L		51	70 - 130
cis-1,3-Dichloropropene	ND		625	584		ug/L		93	70 - 130
Dichlorobromomethane	ND		625	592		ug/L		95	70 - 130
Dichlorodifluoromethane	ND	*	625	453		ug/L		73	70 - 130
Ethyl ether	ND		625	630		ug/L		101	70 - 130
Ethylbenzene	ND		625	643		ug/L		103	70 - 130
Ethylene Dibromide	ND		625	600		ug/L		96	70 - 130
Hexachlorobutadiene	ND		625	624		ug/L		100	70 - 130

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

Lab Sample ID: 480-54029-3 MS
Matrix: Water
Analysis Batch: 164338

Client Sample ID: MW-268M-20140130-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Isopropyl ether	ND		625	626		ug/L		100	70 - 130		
Isopropylbenzene	ND		625	621		ug/L		99	70 - 130		
Methyl tert-butyl ether	ND		625	609		ug/L		97	70 - 130		
Methylene Chloride	ND		625	589		ug/L		94	70 - 130		
m-Xylene & p-Xylene	ND		625	613		ug/L		98	70 - 130		
Naphthalene	ND		625	670		ug/L		107	70 - 130		
n-Butylbenzene	ND		625	652		ug/L		104	70 - 130		
N-Propylbenzene	ND		625	632		ug/L		101	70 - 130		
o-Xylene	ND		625	610		ug/L		98	70 - 130		
sec-Butylbenzene	ND		625	631		ug/L		101	70 - 130		
Styrene	ND		625	625		ug/L		100	70 - 130		
Tert-amyl methyl ether	ND		625	616		ug/L		99	70 - 130		
Tert-butyl ethyl ether	ND		625	605		ug/L		97	70 - 130		
tert-Butylbenzene	ND		625	675		ug/L		108	70 - 130		
Tetrachloroethene	37		625	675		ug/L		102	70 - 130		
Tetrahydrofuran	ND	*	1250	1570		ug/L		126	70 - 130		
Toluene	ND		625	639		ug/L		102	70 - 130		
trans-1,2-Dichloroethene	ND		625	654		ug/L		105	70 - 130		
trans-1,3-Dichloropropene	ND		625	547		ug/L		88	70 - 130		
Trichloroethene	1100		625	1520		ug/L		70	70 - 130		
Trichlorofluoromethane	ND		625	574		ug/L		92	70 - 130		
Vinyl chloride	210		625	695		ug/L		78	70 - 130		
Dibromomethane	ND		625	633		ug/L		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 480-54029-3 MSD
Matrix: Water
Analysis Batch: 164338

Client Sample ID: MW-268M-20140130-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		625	663		ug/L		106	70 - 130	2	20
1,1,1-Trichloroethane	ND		625	654		ug/L		105	70 - 130	3	20
1,1,2,2-Tetrachloroethane	ND		625	620		ug/L		99	70 - 130	1	20
1,1,2-Trichloroethane	ND		625	613		ug/L		98	70 - 130	0	20
1,1-Dichloroethane	ND		625	641		ug/L		101	70 - 130	0	20
1,1-Dichloroethene	ND		625	645		ug/L		103	70 - 130	5	20
1,1-Dichloropropene	ND		625	636		ug/L		102	70 - 130	2	20
1,2,3-Trichlorobenzene	ND		625	653		ug/L		105	70 - 130	2	20
1,2,3-Trichloropropane	ND		625	596		ug/L		95	70 - 130	4	20
1,2,4-Trichlorobenzene	ND		625	659		ug/L		105	70 - 130	2	20
1,2,4-Trimethylbenzene	ND		625	627		ug/L		100	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	ND		625	602		ug/L		96	70 - 130	2	20
1,2-Dichlorobenzene	ND		625	655		ug/L		105	70 - 130	0	20
1,2-Dichloroethane	ND		625	614		ug/L		98	70 - 130	0	20

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

Lab Sample ID: 480-54029-3 MSD
Matrix: Water
Analysis Batch: 164338

Client Sample ID: MW-268M-20140130-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		625	638		ug/L		102	70 - 130	1	20
1,3,5-Trimethylbenzene	ND		625	622		ug/L		99	70 - 130	0	20
1,3-Dichlorobenzene	ND		625	656		ug/L		105	70 - 130	1	20
1,3-Dichloropropane	ND		625	617		ug/L		99	70 - 130	1	20
1,4-Dichlorobenzene	ND		625	651		ug/L		104	70 - 130	0	20
1,4-Dioxane	ND		12500	13800		ug/L		110	70 - 130	6	20
2,2-Dichloropropane	ND		625	549		ug/L		88	70 - 130	5	20
2-Butanone (MEK)	ND		3130	5550	F1	ug/L		178	70 - 130	1	20
2-Chlorotoluene	ND		625	655		ug/L		105	70 - 130	0	20
2-Hexanone	ND		3130	3270		ug/L		105	70 - 130	1	20
4-Chlorotoluene	ND		625	603		ug/L		96	70 - 130	0	20
4-Isopropyltoluene	ND		625	670		ug/L		107	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	ND		3130	3090		ug/L		99	70 - 130	1	20
Acetone	ND		3130	3220		ug/L		103	70 - 130	0	20
Benzene	ND		625	630		ug/L		101	70 - 130	2	20
Bromobenzene	ND		625	649		ug/L		104	70 - 130	1	20
Bromoform	ND		625	542		ug/L		87	70 - 130	4	20
Bromomethane	ND		625	703		ug/L		112	70 - 130	11	20
Carbon disulfide	ND		625	585		ug/L		94	70 - 130	4	20
Carbon tetrachloride	ND		625	636		ug/L		102	70 - 130	4	20
Chlorobenzene	ND		625	668		ug/L		107	70 - 130	2	20
Chlorobromomethane	ND		625	657		ug/L		105	70 - 130	3	20
Chlorodibromomethane	ND		613	581		ug/L		95	70 - 130	0	20
Chloroethane	ND		625	692		ug/L		111	70 - 130	7	20
Chloroform	ND		625	595		ug/L		95	70 - 130	2	20
Chloromethane	ND		625	489		ug/L		78	70 - 130	8	20
cis-1,2-Dichloroethene	2500		625	2840	E 4	ug/L		54	70 - 130	1	20
cis-1,3-Dichloropropene	ND		625	586		ug/L		94	70 - 130	0	20
Dichlorobromomethane	ND		625	600		ug/L		96	70 - 130	1	20
Dichlorodifluoromethane	ND	*	625	455		ug/L		73	70 - 130	0	20
Ethyl ether	ND		625	634		ug/L		101	70 - 130	1	20
Ethylbenzene	ND		625	656		ug/L		105	70 - 130	2	20
Ethylene Dibromide	ND		625	603		ug/L		97	70 - 130	0	20
Hexachlorobutadiene	ND		625	627		ug/L		100	70 - 130	0	20
Isopropyl ether	ND		625	628		ug/L		101	70 - 130	0	20
Isopropylbenzene	ND		625	624		ug/L		100	70 - 130	0	20
Methyl tert-butyl ether	ND		625	604		ug/L		97	70 - 130	1	20
Methylene Chloride	ND		625	599		ug/L		96	70 - 130	2	20
m-Xylene & p-Xylene	ND		625	629		ug/L		101	70 - 130	3	20
Naphthalene	ND		625	662		ug/L		106	70 - 130	1	20
n-Butylbenzene	ND		625	657		ug/L		105	70 - 130	1	20
N-Propylbenzene	ND		625	641		ug/L		103	70 - 130	1	20
o-Xylene	ND		625	619		ug/L		99	70 - 130	1	20
sec-Butylbenzene	ND		625	637		ug/L		102	70 - 130	1	20
Styrene	ND		625	640		ug/L		102	70 - 130	2	20
Tert-amyl methyl ether	ND		625	620		ug/L		99	70 - 130	1	20
Tert-butyl ethyl ether	ND		625	601		ug/L		96	70 - 130	1	20
tert-Butylbenzene	ND		625	672		ug/L		107	70 - 130	0	20

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

Lab Sample ID: 480-54029-3 MSD
Matrix: Water
Analysis Batch: 164338

Client Sample ID: MW-268M-20140130-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	37		625	669		ug/L		101	70 - 130	1	20
Tetrahydrofuran	ND	*	1250	1580		ug/L		126	70 - 130	1	20
Toluene	ND		625	647		ug/L		104	70 - 130	1	20
trans-1,2-Dichloroethene	ND		625	661		ug/L		106	70 - 130	1	20
trans-1,3-Dichloropropene	ND		625	560		ug/L		90	70 - 130	2	20
Trichloroethene	1100		625	1550		ug/L		74	70 - 130	2	20
Trichlorofluoromethane	ND		625	613		ug/L		98	70 - 130	7	20
Vinyl chloride	210		625	705		ug/L		80	70 - 130	1	20
Dibromomethane	ND		625	635		ug/L		102	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 480-164408/7
Matrix: Water
Analysis Batch: 164408

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			02/04/14 12:22	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/04/14 12:22	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/14 12:22	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/04/14 12:22	1
1,1-Dichloroethane	ND		1.0		ug/L			02/04/14 12:22	1
1,1-Dichloroethene	ND		1.0		ug/L			02/04/14 12:22	1
1,1-Dichloropropene	ND		1.0		ug/L			02/04/14 12:22	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/04/14 12:22	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/04/14 12:22	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,2-Dichloroethane	ND		1.0		ug/L			02/04/14 12:22	1
1,2-Dichloropropane	ND		1.0		ug/L			02/04/14 12:22	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,3-Dichlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/14 12:22	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
1,4-Dioxane	ND		50		ug/L			02/04/14 12:22	1
2,2-Dichloropropane	ND		1.0		ug/L			02/04/14 12:22	1
2-Butanone (MEK)	ND		10		ug/L			02/04/14 12:22	1
2-Chlorotoluene	ND		1.0		ug/L			02/04/14 12:22	1
2-Hexanone	ND		10		ug/L			02/04/14 12:22	1
4-Chlorotoluene	ND		1.0		ug/L			02/04/14 12:22	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/14 12:22	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/04/14 12:22	1
Acetone	ND		50		ug/L			02/04/14 12:22	1

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

Lab Sample ID: MB 480-164408/7
Matrix: Water
Analysis Batch: 164408

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			02/04/14 12:22	1
Bromobenzene	ND		1.0		ug/L			02/04/14 12:22	1
Bromoform	ND		1.0		ug/L			02/04/14 12:22	1
Bromomethane	ND		2.0		ug/L			02/04/14 12:22	1
Carbon disulfide	ND		10		ug/L			02/04/14 12:22	1
Carbon tetrachloride	ND		1.0		ug/L			02/04/14 12:22	1
Chlorobenzene	ND		1.0		ug/L			02/04/14 12:22	1
Chlorobromomethane	ND		1.0		ug/L			02/04/14 12:22	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/14 12:22	1
Chloroethane	ND		2.0		ug/L			02/04/14 12:22	1
Chloroform	ND		1.0		ug/L			02/04/14 12:22	1
Chloromethane	ND		2.0		ug/L			02/04/14 12:22	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 12:22	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 12:22	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/14 12:22	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/04/14 12:22	1
Ethyl ether	ND		1.0		ug/L			02/04/14 12:22	1
Ethylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
Ethylene Dibromide	ND		1.0		ug/L			02/04/14 12:22	1
Hexachlorobutadiene	ND		0.40		ug/L			02/04/14 12:22	1
Isopropyl ether	ND		10		ug/L			02/04/14 12:22	1
Isopropylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/04/14 12:22	1
Methylene Chloride	ND		1.0		ug/L			02/04/14 12:22	1
m-Xylene & p-Xylene	ND		2.0		ug/L			02/04/14 12:22	1
Naphthalene	ND		5.0		ug/L			02/04/14 12:22	1
n-Butylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
N-Propylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
o-Xylene	ND		1.0		ug/L			02/04/14 12:22	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
Styrene	ND		1.0		ug/L			02/04/14 12:22	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/04/14 12:22	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/04/14 12:22	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/14 12:22	1
Tetrachloroethene	ND		1.0		ug/L			02/04/14 12:22	1
Tetrahydrofuran	ND		10		ug/L			02/04/14 12:22	1
Toluene	ND		1.0		ug/L			02/04/14 12:22	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 12:22	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 12:22	1
Trichloroethene	ND		1.0		ug/L			02/04/14 12:22	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/14 12:22	1
Vinyl chloride	ND		1.0		ug/L			02/04/14 12:22	1
Dibromomethane	ND		1.0		ug/L			02/04/14 12:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*70 - 130*		*02/04/14 12:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*02/04/14 12:22*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*02/04/14 12:22*	*1*

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

Lab Sample ID: LCS 480-164408/4
Matrix: Water
Analysis Batch: 164408

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	27.8		ug/L		111	70 - 130
1,1,1-Trichloroethane	25.0	26.2		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	70 - 130
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	70 - 130
1,1-Dichloroethane	25.0	27.1		ug/L		108	70 - 130
1,1-Dichloroethene	25.0	26.7		ug/L		107	70 - 130
1,1-Dichloropropene	25.0	27.0		ug/L		108	70 - 130
1,2,3-Trichlorobenzene	25.0	28.1		ug/L		112	70 - 130
1,2,3-Trichloropropane	25.0	25.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	25.0	28.7		ug/L		115	70 - 130
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	27.4		ug/L		109	70 - 130
1,2-Dichloroethane	25.0	26.0		ug/L		104	70 - 130
1,2-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	25.0	26.1		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	27.8		ug/L		111	70 - 130
1,3-Dichloropropane	25.0	25.9		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	27.5		ug/L		110	70 - 130
1,4-Dioxane	500	563		ug/L		113	70 - 130
2,2-Dichloropropane	25.0	25.5		ug/L		102	70 - 130
2-Butanone (MEK)	125	145		ug/L		116	70 - 130
2-Chlorotoluene	25.0	27.4		ug/L		110	70 - 130
2-Hexanone	125	138		ug/L		111	70 - 130
4-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130
4-Isopropyltoluene	25.0	28.3		ug/L		113	70 - 130
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130
Acetone	125	145		ug/L		116	70 - 130
Benzene	25.0	26.0		ug/L		104	70 - 130
Bromobenzene	25.0	27.0		ug/L		108	70 - 130
Bromoform	25.0	28.4		ug/L		114	70 - 130
Bromomethane	25.0	25.8		ug/L		103	70 - 130
Carbon disulfide	25.0	26.2		ug/L		105	70 - 130
Carbon tetrachloride	25.0	27.3		ug/L		109	70 - 130
Chlorobenzene	25.0	27.5		ug/L		110	70 - 130
Chlorobromomethane	25.0	27.3		ug/L		109	70 - 130
Chlorodibromomethane	24.5	27.7		ug/L		113	70 - 130
Chloroethane	25.0	25.7		ug/L		103	70 - 130
Chloroform	25.0	24.8		ug/L		99	70 - 130
Chloromethane	25.0	18.5		ug/L		74	70 - 130
cis-1,2-Dichloroethene	25.0	27.1		ug/L		108	70 - 130
cis-1,3-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
Dichlorobromomethane	25.0	26.6		ug/L		106	70 - 130
Dichlorodifluoromethane	25.0	12.8	*	ug/L		51	70 - 130
Ethyl ether	25.0	26.1		ug/L		105	70 - 130
Ethylbenzene	25.0	27.5		ug/L		110	70 - 130
Ethylene Dibromide	25.0	25.4		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	27.5		ug/L		110	70 - 130

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

Lab Sample ID: LCS 480-164408/4
Matrix: Water
Analysis Batch: 164408

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl ether	25.0	25.3		ug/L		101	70 - 130
Isopropylbenzene	25.0	25.9		ug/L		104	70 - 130
Methyl tert-butyl ether	25.0	25.3		ug/L		101	70 - 130
Methylene Chloride	25.0	24.9		ug/L		99	70 - 130
m-Xylene & p-Xylene	25.0	26.4		ug/L		105	70 - 130
Naphthalene	25.0	27.7		ug/L		111	70 - 130
n-Butylbenzene	25.0	28.1		ug/L		113	70 - 130
N-Propylbenzene	25.0	26.8		ug/L		107	70 - 130
o-Xylene	25.0	26.3		ug/L		105	70 - 130
sec-Butylbenzene	25.0	26.7		ug/L		107	70 - 130
Styrene	25.0	27.0		ug/L		108	70 - 130
Tert-amyl methyl ether	25.0	25.1		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	23.8		ug/L		95	70 - 130
tert-Butylbenzene	25.0	28.6		ug/L		115	70 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Tetrahydrofuran	50.0	67.2	*	ug/L		134	70 - 130
Toluene	25.0	27.0		ug/L		108	70 - 130
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 130
Trichloroethene	25.0	27.4		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	23.3		ug/L		93	70 - 130
Vinyl chloride	25.0	20.0		ug/L		80	70 - 130
Dibromomethane	25.0	26.1		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 480-164408/5
Matrix: Water
Analysis Batch: 164408

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	27.0		ug/L		108	70 - 130	3	20
1,1,1-Trichloroethane	25.0	26.1		ug/L		105	70 - 130	0	20
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	70 - 130	1	20
1,1,2-Trichloroethane	25.0	24.6		ug/L		98	70 - 130	5	20
1,1-Dichloroethane	25.0	26.6		ug/L		106	70 - 130	2	20
1,1-Dichloroethene	25.0	25.8		ug/L		103	70 - 130	3	20
1,1-Dichloropropene	25.0	26.4		ug/L		106	70 - 130	2	20
1,2,3-Trichlorobenzene	25.0	27.0		ug/L		108	70 - 130	4	20
1,2,3-Trichloropropane	25.0	24.1		ug/L		96	70 - 130	5	20
1,2,4-Trichlorobenzene	25.0	27.2		ug/L		109	70 - 130	5	20
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	25.0	25.3		ug/L		101	70 - 130	2	20
1,2-Dichlorobenzene	25.0	26.6		ug/L		107	70 - 130	3	20
1,2-Dichloroethane	25.0	25.6		ug/L		102	70 - 130	2	20

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

Lab Sample ID: LCSD 480-164408/5
Matrix: Water
Analysis Batch: 164408

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
1,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	0	20
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130	4	20
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130	4	20
1,3-Dichloropropane	25.0	25.6		ug/L		102	70 - 130	1	20
1,4-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130	4	20
1,4-Dioxane	500	542		ug/L		108	70 - 130	4	20
2,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 130	3	20
2-Butanone (MEK)	125	147		ug/L		117	70 - 130	1	20
2-Chlorotoluene	25.0	26.6		ug/L		106	70 - 130	3	20
2-Hexanone	125	134		ug/L		107	70 - 130	3	20
4-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130	4	20
4-Isopropyltoluene	25.0	27.0		ug/L		108	70 - 130	5	20
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	70 - 130	0	20
Acetone	125	142		ug/L		114	70 - 130	2	20
Benzene	25.0	25.8		ug/L		103	70 - 130	1	20
Bromobenzene	25.0	26.9		ug/L		108	70 - 130	0	20
Bromoform	25.0	27.8		ug/L		111	70 - 130	2	20
Bromomethane	25.0	25.4		ug/L		102	70 - 130	1	20
Carbon disulfide	25.0	25.9		ug/L		104	70 - 130	1	20
Carbon tetrachloride	25.0	26.9		ug/L		108	70 - 130	1	20
Chlorobenzene	25.0	26.9		ug/L		108	70 - 130	2	20
Chlorobromomethane	25.0	26.9		ug/L		107	70 - 130	2	20
Chlorodibromomethane	24.5	27.0		ug/L		110	70 - 130	3	20
Chloroethane	25.0	25.5		ug/L		102	70 - 130	1	20
Chloroform	25.0	24.9		ug/L		100	70 - 130	1	20
Chloromethane	25.0	17.7		ug/L		71	70 - 130	4	20
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130	3	20
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 130	1	20
Dichlorobromomethane	25.0	25.7		ug/L		103	70 - 130	3	20
Dichlorodifluoromethane	25.0	12.4	*	ug/L		50	70 - 130	3	20
Ethyl ether	25.0	26.2		ug/L		105	70 - 130	0	20
Ethylbenzene	25.0	26.8		ug/L		107	70 - 130	3	20
Ethylene Dibromide	25.0	25.1		ug/L		100	70 - 130	1	20
Hexachlorobutadiene	25.0	25.6		ug/L		102	70 - 130	7	20
Isopropyl ether	25.0	24.8		ug/L		99	70 - 130	2	20
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 130	3	20
Methyl tert-butyl ether	25.0	25.1		ug/L		101	70 - 130	1	20
Methylene Chloride	25.0	25.1		ug/L		100	70 - 130	1	20
m-Xylene & p-Xylene	25.0	25.6		ug/L		102	70 - 130	3	20
Naphthalene	25.0	27.4		ug/L		110	70 - 130	1	20
n-Butylbenzene	25.0	27.0		ug/L		108	70 - 130	4	20
N-Propylbenzene	25.0	25.8		ug/L		103	70 - 130	4	20
o-Xylene	25.0	25.8		ug/L		103	70 - 130	2	20
sec-Butylbenzene	25.0	25.4		ug/L		102	70 - 130	5	20
Styrene	25.0	26.1		ug/L		104	70 - 130	3	20
Tert-amyl methyl ether	25.0	25.2		ug/L		101	70 - 130	0	20
Tert-butyl ethyl ether	25.0	23.9		ug/L		96	70 - 130	1	20
tert-Butylbenzene	25.0	26.5		ug/L		106	70 - 130	8	20

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

Lab Sample ID: LCSD 480-164408/5
Matrix: Water
Analysis Batch: 164408

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
Tetrachloroethene			25.0	27.2		ug/L		109	70 - 130	2	20
Tetrahydrofuran			50.0	67.2	*	ug/L		134	70 - 130	0	20
Toluene			25.0	26.0		ug/L		104	70 - 130	4	20
trans-1,2-Dichloroethene			25.0	27.1		ug/L		108	70 - 130	2	20
trans-1,3-Dichloropropene			25.0	25.5		ug/L		102	70 - 130	0	20
Trichloroethene			25.0	27.0		ug/L		108	70 - 130	1	20
Trichlorofluoromethane			25.0	22.2		ug/L		89	70 - 130	5	20
Vinyl chloride			25.0	18.9		ug/L		76	70 - 130	5	20
Dibromomethane			25.0	26.3		ug/L		105	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: MB 480-164532/7
Matrix: Water
Analysis Batch: 164532

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			02/04/14 23:41	1
1,1,1-Trichloroethane	ND		1.0		ug/L			02/04/14 23:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			02/04/14 23:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			02/04/14 23:41	1
1,1-Dichloroethane	ND		1.0		ug/L			02/04/14 23:41	1
1,1-Dichloroethene	ND		1.0		ug/L			02/04/14 23:41	1
1,1-Dichloropropene	ND		1.0		ug/L			02/04/14 23:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,2,3-Trichloropropane	ND		1.0		ug/L			02/04/14 23:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			02/04/14 23:41	1
1,2-Dichlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,2-Dichloroethane	ND		1.0		ug/L			02/04/14 23:41	1
1,2-Dichloropropane	ND		1.0		ug/L			02/04/14 23:41	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,3-Dichlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,3-Dichloropropane	ND		1.0		ug/L			02/04/14 23:41	1
1,4-Dichlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
1,4-Dioxane	ND		50		ug/L			02/04/14 23:41	1
2,2-Dichloropropane	ND		1.0		ug/L			02/04/14 23:41	1
2-Butanone (MEK)	ND		10		ug/L			02/04/14 23:41	1
2-Chlorotoluene	ND		1.0		ug/L			02/04/14 23:41	1
2-Hexanone	ND		10		ug/L			02/04/14 23:41	1
4-Chlorotoluene	ND		1.0		ug/L			02/04/14 23:41	1
4-Isopropyltoluene	ND		1.0		ug/L			02/04/14 23:41	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			02/04/14 23:41	1
Acetone	ND		50		ug/L			02/04/14 23:41	1

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

Lab Sample ID: MB 480-164532/7
Matrix: Water
Analysis Batch: 164532

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			02/04/14 23:41	1
Bromobenzene	ND		1.0		ug/L			02/04/14 23:41	1
Bromoform	ND		1.0		ug/L			02/04/14 23:41	1
Bromomethane	ND		2.0		ug/L			02/04/14 23:41	1
Carbon disulfide	ND		10		ug/L			02/04/14 23:41	1
Carbon tetrachloride	ND		1.0		ug/L			02/04/14 23:41	1
Chlorobenzene	ND		1.0		ug/L			02/04/14 23:41	1
Chlorobromomethane	ND		1.0		ug/L			02/04/14 23:41	1
Chlorodibromomethane	ND		0.50		ug/L			02/04/14 23:41	1
Chloroethane	ND		2.0		ug/L			02/04/14 23:41	1
Chloroform	ND		1.0		ug/L			02/04/14 23:41	1
Chloromethane	ND		2.0		ug/L			02/04/14 23:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 23:41	1
cis-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 23:41	1
Dichlorobromomethane	ND		0.50		ug/L			02/04/14 23:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			02/04/14 23:41	1
Ethyl ether	ND		1.0		ug/L			02/04/14 23:41	1
Ethylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
Ethylene Dibromide	ND		1.0		ug/L			02/04/14 23:41	1
Hexachlorobutadiene	ND		0.40		ug/L			02/04/14 23:41	1
Isopropyl ether	ND		10		ug/L			02/04/14 23:41	1
Isopropylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			02/04/14 23:41	1
Methylene Chloride	ND		1.0		ug/L			02/04/14 23:41	1
m-Xylene & p-Xylene	ND		2.0		ug/L			02/04/14 23:41	1
Naphthalene	ND		5.0		ug/L			02/04/14 23:41	1
n-Butylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
N-Propylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
o-Xylene	ND		1.0		ug/L			02/04/14 23:41	1
sec-Butylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
Styrene	ND		1.0		ug/L			02/04/14 23:41	1
Tert-amyl methyl ether	ND		5.0		ug/L			02/04/14 23:41	1
Tert-butyl ethyl ether	ND		5.0		ug/L			02/04/14 23:41	1
tert-Butylbenzene	ND		1.0		ug/L			02/04/14 23:41	1
Tetrachloroethene	ND		1.0		ug/L			02/04/14 23:41	1
Tetrahydrofuran	ND		10		ug/L			02/04/14 23:41	1
Toluene	ND		1.0		ug/L			02/04/14 23:41	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			02/04/14 23:41	1
trans-1,3-Dichloropropene	ND		0.40		ug/L			02/04/14 23:41	1
Trichloroethene	ND		1.0		ug/L			02/04/14 23:41	1
Trichlorofluoromethane	ND		1.0		ug/L			02/04/14 23:41	1
Vinyl chloride	ND		1.0		ug/L			02/04/14 23:41	1
Dibromomethane	ND		1.0		ug/L			02/04/14 23:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*70 - 130*		*02/04/14 23:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*02/04/14 23:41*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*02/04/14 23:41*	*1*

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

Lab Sample ID: LCS 480-164532/4
Matrix: Water
Analysis Batch: 164532

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	70 - 130
1,1-Dichloroethane	25.0	26.3		ug/L		105	70 - 130
1,1-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	25.0	26.5		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 130
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	26.4		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	24.8		ug/L		99	70 - 130
1,2-Dichloropropane	25.0	26.0		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	25.0	24.9		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichloropropane	25.0	23.9		ug/L		96	70 - 130
1,4-Dichlorobenzene	25.0	26.5		ug/L		106	70 - 130
1,4-Dioxane	500	456		ug/L		91	70 - 130
2,2-Dichloropropane	25.0	25.1		ug/L		100	70 - 130
2-Butanone (MEK)	125	139		ug/L		111	70 - 130
2-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
2-Hexanone	125	126		ug/L		101	70 - 130
4-Chlorotoluene	25.0	24.3		ug/L		97	70 - 130
4-Isopropyltoluene	25.0	27.0		ug/L		108	70 - 130
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	70 - 130
Acetone	125	138		ug/L		111	70 - 130
Benzene	25.0	25.7		ug/L		103	70 - 130
Bromobenzene	25.0	26.1		ug/L		104	70 - 130
Bromoform	25.0	25.7		ug/L		103	70 - 130
Bromomethane	25.0	29.2		ug/L		117	70 - 130
Carbon disulfide	25.0	25.9		ug/L		104	70 - 130
Carbon tetrachloride	25.0	26.7		ug/L		107	70 - 130
Chlorobenzene	25.0	26.2		ug/L		105	70 - 130
Chlorobromomethane	25.0	26.8		ug/L		107	70 - 130
Chlorodibromomethane	24.5	25.9		ug/L		106	70 - 130
Chloroethane	25.0	29.6		ug/L		118	70 - 130
Chloroform	25.0	24.4		ug/L		98	70 - 130
Chloromethane	25.0	26.3		ug/L		105	70 - 130
cis-1,2-Dichloroethene	25.0	26.8		ug/L		107	70 - 130
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 130
Dichlorobromomethane	25.0	25.4		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	30.0		ug/L		120	70 - 130
Ethyl ether	25.0	25.9		ug/L		103	70 - 130
Ethylbenzene	25.0	26.1		ug/L		104	70 - 130
Ethylene Dibromide	25.0	24.2		ug/L		97	70 - 130
Hexachlorobutadiene	25.0	25.3		ug/L		101	70 - 130

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

Lab Sample ID: LCS 480-164532/4
Matrix: Water
Analysis Batch: 164532

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl ether	25.0	25.9		ug/L		104	70 - 130
Isopropylbenzene	25.0	25.1		ug/L		100	70 - 130
Methyl tert-butyl ether	25.0	24.8		ug/L		99	70 - 130
Methylene Chloride	25.0	24.7		ug/L		99	70 - 130
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	70 - 130
Naphthalene	25.0	25.7		ug/L		103	70 - 130
n-Butylbenzene	25.0	26.7		ug/L		107	70 - 130
N-Propylbenzene	25.0	26.2		ug/L		105	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130
sec-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
Styrene	25.0	25.0		ug/L		100	70 - 130
Tert-amyl methyl ether	25.0	24.9		ug/L		100	70 - 130
Tert-butyl ethyl ether	25.0	24.2		ug/L		97	70 - 130
tert-Butylbenzene	25.0	27.7		ug/L		111	70 - 130
Tetrachloroethene	25.0	26.8		ug/L		107	70 - 130
Tetrahydrofuran	50.0	63.7		ug/L		127	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
trans-1,2-Dichloroethene	25.0	26.5		ug/L		106	70 - 130
trans-1,3-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
Trichloroethene	25.0	27.1		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	27.7		ug/L		111	70 - 130
Vinyl chloride	25.0	27.1		ug/L		108	70 - 130
Dibromomethane	25.0	25.4		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 480-164532/5
Matrix: Water
Analysis Batch: 164532

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130	2	20
1,1,1-Trichloroethane	25.0	25.2		ug/L		101	70 - 130	5	20
1,1,2,2-Tetrachloroethane	25.0	24.7		ug/L		99	70 - 130	1	20
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	70 - 130	1	20
1,1-Dichloroethane	25.0	24.8		ug/L		99	70 - 130	6	20
1,1-Dichloroethene	25.0	24.7		ug/L		99	70 - 130	7	20
1,1-Dichloropropene	25.0	25.3		ug/L		101	70 - 130	4	20
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	70 - 130	2	20
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	70 - 130	1	20
1,2,4-Trichlorobenzene	25.0	26.8		ug/L		107	70 - 130	3	20
1,2,4-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 130	2	20
1,2-Dibromo-3-Chloropropane	25.0	24.4		ug/L		98	70 - 130	2	20
1,2-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	1	20
1,2-Dichloroethane	25.0	24.4		ug/L		98	70 - 130	2	20

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

Lab Sample ID: LCSD 480-164532/5
Matrix: Water
Analysis Batch: 164532

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
1,2-Dichloropropane	25.0	25.4		ug/L		102	70 - 130	3	20
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 130	0	20
1,3-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130	0	20
1,3-Dichloropropane	25.0	24.3		ug/L		97	70 - 130	1	20
1,4-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130	0	20
1,4-Dioxane	500	480		ug/L		96	70 - 130	5	20
2,2-Dichloropropane	25.0	24.4		ug/L		98	70 - 130	3	20
2-Butanone (MEK)	125	133		ug/L		107	70 - 130	4	20
2-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130	2	20
2-Hexanone	125	129		ug/L		103	70 - 130	2	20
4-Chlorotoluene	25.0	24.5		ug/L		98	70 - 130	1	20
4-Isopropyltoluene	25.0	26.7		ug/L		107	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	70 - 130	1	20
Acetone	125	135		ug/L		108	70 - 130	2	20
Benzene	25.0	24.8		ug/L		99	70 - 130	4	20
Bromobenzene	25.0	26.4		ug/L		106	70 - 130	1	20
Bromoform	25.0	25.7		ug/L		103	70 - 130	0	20
Bromomethane	25.0	31.0		ug/L		124	70 - 130	6	20
Carbon disulfide	25.0	24.9		ug/L		100	70 - 130	4	20
Carbon tetrachloride	25.0	26.1		ug/L		104	70 - 130	2	20
Chlorobenzene	25.0	26.1		ug/L		104	70 - 130	0	20
Chlorobromomethane	25.0	26.0		ug/L		104	70 - 130	3	20
Chlorodibromomethane	24.5	25.4		ug/L		104	70 - 130	2	20
Chloroethane	25.0	29.5		ug/L		118	70 - 130	0	20
Chloroform	25.0	23.5		ug/L		94	70 - 130	4	20
Chloromethane	25.0	24.8		ug/L		99	70 - 130	6	20
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130	2	20
cis-1,3-Dichloropropene	25.0	25.4		ug/L		102	70 - 130	2	20
Dichlorobromomethane	25.0	24.7		ug/L		99	70 - 130	3	20
Dichlorodifluoromethane	25.0	29.0		ug/L		116	70 - 130	3	20
Ethyl ether	25.0	25.3		ug/L		101	70 - 130	2	20
Ethylbenzene	25.0	25.9		ug/L		104	70 - 130	1	20
Ethylene Dibromide	25.0	24.1		ug/L		96	70 - 130	0	20
Hexachlorobutadiene	25.0	25.1		ug/L		100	70 - 130	1	20
Isopropyl ether	25.0	25.3		ug/L		101	70 - 130	3	20
Isopropylbenzene	25.0	25.1		ug/L		101	70 - 130	0	20
Methyl tert-butyl ether	25.0	24.4		ug/L		98	70 - 130	1	20
Methylene Chloride	25.0	23.9		ug/L		95	70 - 130	4	20
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	70 - 130	1	20
Naphthalene	25.0	26.3		ug/L		105	70 - 130	2	20
n-Butylbenzene	25.0	26.7		ug/L		107	70 - 130	0	20
N-Propylbenzene	25.0	25.8		ug/L		103	70 - 130	2	20
o-Xylene	25.0	24.8		ug/L		99	70 - 130	0	20
sec-Butylbenzene	25.0	25.5		ug/L		102	70 - 130	0	20
Styrene	25.0	25.4		ug/L		102	70 - 130	1	20
Tert-amyl methyl ether	25.0	24.7		ug/L		99	70 - 130	1	20
Tert-butyl ethyl ether	25.0	23.9		ug/L		95	70 - 130	1	20
tert-Butylbenzene	25.0	27.3		ug/L		109	70 - 130	2	20

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

Lab Sample ID: LCSD 480-164532/5
Matrix: Water
Analysis Batch: 164532

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
Tetrachloroethene			25.0	26.6		ug/L		106	70 - 130	1	20
Tetrahydrofuran			50.0	63.4		ug/L		127	70 - 130	0	20
Toluene			25.0	25.4		ug/L		102	70 - 130	1	20
trans-1,2-Dichloroethene			25.0	26.4		ug/L		106	70 - 130	0	20
trans-1,3-Dichloropropene			25.0	24.1		ug/L		96	70 - 130	0	20
Trichloroethene			25.0	26.1		ug/L		104	70 - 130	4	20
Trichlorofluoromethane			25.0	27.3		ug/L		109	70 - 130	1	20
Vinyl chloride			25.0	26.0		ug/L		104	70 - 130	4	20
Dibromomethane			25.0	25.4		ug/L		101	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*

GC/MS VOA

Analysis Batch: 164338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-54029-1	MW-267S-20140130-01	Total/NA	Water	8260C	
480-54029-2	MW-267M-20140130-01	Total/NA	Water	8260C	
480-54029-3	MW-268M-20140130-01	Total/NA	Water	8260C	
480-54029-3 MS	MW-268M-20140130-01	Total/NA	Water	8260C	
480-54029-3 MSD	MW-268M-20140130-01	Total/NA	Water	8260C	
480-54029-4	MW-561-20140130-01	Total/NA	Water	8260C	
480-54029-6	REW-6-20140130-01	Total/NA	Water	8260C	
480-54029-7	REW-7-20140130-01	Total/NA	Water	8260C	
480-54029-9	REW-9-20140130-01	Total/NA	Water	8260C	
480-54029-10	REW-12-20140130-01	Total/NA	Water	8260C	
LCS 480-164338/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-164338/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-164338/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 164408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-54029-3 - DL	MW-268M-20140130-01	Total/NA	Water	8260C	
480-54029-4 - DL	MW-561-20140130-01	Total/NA	Water	8260C	
480-54029-8	REW-8-20140130-01	Total/NA	Water	8260C	
480-54029-11	DupX-20140130-01	Total/NA	Water	8260C	
480-54029-12	Trip Blank	Total/NA	Water	8260C	
LCS 480-164408/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-164408/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-164408/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 164532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-54029-5	MW-553-20140130-01	Total/NA	Water	8260C	
LCS 480-164532/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-164532/5	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 480-164532/7	Method Blank	Total/NA	Water	8260C	

Client Sample ID: MW-267S-20140130-01

Lab Sample ID: 480-54029-1

Date Collected: 01/30/14 12:50

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	164338	02/04/14 04:10	LCH	TAL BUF

Client Sample ID: MW-267M-20140130-01

Lab Sample ID: 480-54029-2

Date Collected: 01/30/14 12:10

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	164338	02/04/14 04:33	LCH	TAL BUF

Client Sample ID: MW-268M-20140130-01

Lab Sample ID: 480-54029-3

Date Collected: 01/30/14 11:25

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	164338	02/04/14 04:57	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	40	164408	02/04/14 13:47	RAL	TAL BUF

Client Sample ID: MW-561-20140130-01

Lab Sample ID: 480-54029-4

Date Collected: 01/30/14 09:10

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	164338	02/04/14 05:21	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	20	164408	02/04/14 14:11	RAL	TAL BUF

Client Sample ID: MW-553-20140130-01

Lab Sample ID: 480-54029-5

Date Collected: 01/30/14 10:30

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	164532	02/05/14 00:18	GTG	TAL BUF

Client Sample ID: REW-6-20140130-01

Lab Sample ID: 480-54029-6

Date Collected: 01/30/14 09:55

Matrix: Water

Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	164338	02/04/14 06:08	LCH	TAL BUF

Lab Chronicle

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

TestAmerica Job ID: 480-54029-1

Client Sample ID: REW-7-20140130-01

Lab Sample ID: 480-54029-7

Date Collected: 01/30/14 10:50
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	164338	02/04/14 06:33	LCH	TAL BUF

Client Sample ID: REW-8-20140130-01

Lab Sample ID: 480-54029-8

Date Collected: 01/30/14 12:55
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	164408	02/04/14 14:59	RAL	TAL BUF

Client Sample ID: REW-9-20140130-01

Lab Sample ID: 480-54029-9

Date Collected: 01/30/14 12:15
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	164338	02/04/14 07:20	LCH	TAL BUF

Client Sample ID: REW-12-20140130-01

Lab Sample ID: 480-54029-10

Date Collected: 01/30/14 09:10
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	164338	02/04/14 07:44	LCH	TAL BUF

Client Sample ID: DupX-20140130-01

Lab Sample ID: 480-54029-11

Date Collected: 01/30/14 00:00
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	164408	02/04/14 15:23	RAL	TAL BUF

Client Sample ID: Trip Blank

Lab Sample ID: 480-54029-12

Date Collected: 01/30/14 00:00
Matrix: Water
Date Received: 01/31/14 00:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	164408	02/04/14 15:47	RAL	TAL BUF

Laboratory References:

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

Certification Summary

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

TestAmerica Job ID: 480-54029-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	04-01-14
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	03-31-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14 *
West Virginia DEP	State Program	3	252	03-31-14
Wisconsin	State Program	5	998310390	08-31-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

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

TestAmerica Job ID: 480-54029-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	MA DEP	TAL BUF

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

Laboratory References:

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

Sample Summary

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

TestAmerica Job ID: 480-54029-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-54029-1	MW-267S-20140130-01	Water	01/30/14 12:50	01/31/14 00:30
480-54029-2	MW-267M-20140130-01	Water	01/30/14 12:10	01/31/14 00:30
480-54029-3	MW-268M-20140130-01	Water	01/30/14 11:25	01/31/14 00:30
480-54029-4	MW-561-20140130-01	Water	01/30/14 09:10	01/31/14 00:30
480-54029-5	MW-553-20140130-01	Water	01/30/14 10:30	01/31/14 00:30
480-54029-6	REW-6-20140130-01	Water	01/30/14 09:55	01/31/14 00:30
480-54029-7	REW-7-20140130-01	Water	01/30/14 10:50	01/31/14 00:30
480-54029-8	REW-8-20140130-01	Water	01/30/14 12:55	01/31/14 00:30
480-54029-9	REW-9-20140130-01	Water	01/30/14 12:15	01/31/14 00:30
480-54029-10	REW-12-20140130-01	Water	01/30/14 09:10	01/31/14 00:30
480-54029-11	DupX-20140130-01	Water	01/30/14 00:00	01/31/14 00:30
480-54029-12	Trip Blank	Water	01/30/14 00:00	01/31/14 00:30

Login Sample Receipt Checklist

Client: Innovative Engineering Solutions, Inc

Job Number: 480-54029-1

Login Number: 54029

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

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.	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	N/A	
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	
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	

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt ______

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client	Franklin Engineering Solutions Inc.
Project Manager	Vicki Ramos
Date	1/30/14
Chain of Custody Number	261465
Address	35 Spring St
Telephone Number (Area Code)/Fax Number	508-653-0022 / 508-653-5175
Lab Number	
Page	1 of 1
City	Walpole
State	MA
Zip Code	02081
Site Contact	Dan Simon
Lab Contact	
Project Name and Location (State)	RFI-003 Ruffleson, Conn.
Carrier/Waybill Number	
Contract/Purchase Order/Quote No.	RFI 003

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8260B
MW-207S-20140130-01	1/30/14	1250		X						3			X
MW-217M-20140130-01	1/30/14	1210		X						3			X
MW-218M-20140130-01	1/30/14	1125		X						3			X
MW-361-20140130-01	1/30/14	0910		X						3			X
MW-553-20140130-01	1/30/14	1030		X						3			X
RW-6-20140130-01	1/30/14	0955		X						3			X
RW-7-20140130-01	1/30/14	1050		X						3			X
RW-3-20140130-01	1/30/14	1253		X						3			X
RW-9-20140130-01	1/30/14	1215		X						3			X
RW-1-20140130-01	1/30/14	0910		X						3			X
Dup-20140130-01	1/30/14	—		X						3			X
Trip Blank	—	—		X						2			X

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other ______

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By [illegible]	1/30/14	1405	1. Received By [illegible]	1/30/14	1405
2. Relinquished By [illegible]	1/31/14	1630	2. Received By [illegible] TAL	1-31-14	0030
3. Relinquished By			3. Received By		

Comments

3.3 #1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Report Date:
12-Feb-14 17:14

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

Innovative Engineering Solutions, Inc.
25 Spring Street
Walpole, MA 02081

Work Order: N0134
Project : Raytheon - Wayland
Project #:

Attn: Sami Fam

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
N0134-01	MW-267S-20140130-01	Aqueous	30-Jan-14 12:50	31-Jan-14 11:08
N0134-02	MW-267M-20140130-01	Aqueous	30-Jan-14 12:10	31-Jan-14 11:08
N0134-03	MW-268M-20140130-01	Aqueous	30-Jan-14 11:25	31-Jan-14 11:08
N0134-04	MW-561-20140130-01	Aqueous	30-Jan-14 09:10	31-Jan-14 11:08
N0134-05	MW-553-20140130-01	Aqueous	30-Jan-14 10:30	31-Jan-14 11:08
N0134-06	REW-6-20140130-01	Aqueous	30-Jan-14 09:55	31-Jan-14 11:08
N0134-07	REW-7-20140130-01	Aqueous	30-Jan-14 10:50	31-Jan-14 11:08
N0134-08	REW-8-20140130-01	Aqueous	30-Jan-14 12:55	31-Jan-14 11:08
N0134-09	REW-9-20140130-01	Aqueous	30-Jan-14 12:15	31-Jan-14 11:08
N0134-10	REW-12-20140130-01	Aqueous	30-Jan-14 09:10	31-Jan-14 11:08
N0134-11	TRIPBLANK	Aqueous	30-Jan-14 00:00	31-Jan-14 11:08

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : Innovative Engineering Solutions, Inc.

Project: Raytheon - Wayland

Laboratory Workorder / SDG #: N0134

RSK175, Dissolved Gases by GC-FID

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: RSK175

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

V. INSTRUMENTATION

The following instrumentation was used to perform

Instrument Code: V7
Instrument Type: GC-FID

Description: HP5890 II
Manufacturer: Hewlett-Packard
Model: 5890
GC Column used: 30 m X 0.53 mm ID [um thickness] CARBOXEM 1006 capillary column.

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

N/A.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

NA.

F. Dilutions:

The following samples were analyzed at dilution:

MW-267S-20140130-01 (N0134-01BDL) : Dilution Factor: 5
MW-267M-20140130-01 (N0134-02BDL) : Dilution Factor: 50
MW-268M-20140130-01 (N0134-03BDL) : Dilution Factor: 5
MW-561-20140130-01 (N0134-04BDL) : Dilution Factor: 10
MW-553-20140130-01 (N0134-05BDL) : Dilution Factor: 20
REW-6-20140130-01 (N0134-06BDL) : Dilution Factor: 10
REW-7-20140130-01 (N0134-07BDL) : Dilution Factor: 4
REW-9-20140130-01 (N0134-09BDL) : Dilution Factor: 2

REW-12-20140130-01 (N0134-10BDL) : Dilution Factor: 5

G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

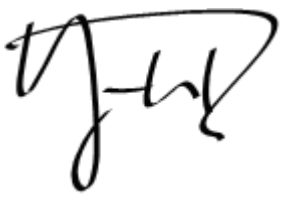
· M1 peak tailing or fronting
· M2 peak co-elution
· M3 rising or falling baseline
· M4 retention time shift
· M5 miscellaneous - under this category, the justification is explained
· M6 software did not integrate peak
· M7 partial peak integration

The following samples were manually integrated:

REW-7-20140130-01 (N0134-07B) Methane due to M7

VSTD005U7 Ethane , Ethene, Methane due to M7

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.



Signed:_____ _____

Date:_____2/12/2014_____

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : Innovative Engineering Solutions, Inc.

Project: Raytheon - Wayland

Laboratory Workorder / SDG #: N0134

SW846 6010C

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 6010C

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3005A

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: OPTIMA3
Instrument Type: ICP

Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for laboratory control samples were within the QC limits.

2. Matrix spike (MS):

A matrix spike was not performed on any sample in this SDG.

D. Post Digestion Spike (PDS):

A post-digestion spike was not performed on any sample in this SDG.

E. Duplicate sample:

A duplicate analysis was not performed on any sample in this SDG.

F. Serial Dilution (SD):

Serial Dilution analysis was performed on sample: REW-12-20140130-01 (N0134-10ESD).

Percent difference was within the QC limits.

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 02/06/14

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : Innovative Engineering Solutions, Inc.

Project: Raytheon - Wayland

Laboratory Workorder / SDG #: N0134

EPA 300.0, EPA 300.0 Modified, SM 2320B, SM 4500 H+ B,
SM 4500P-E OP, SM 5310B TOC

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: EPA 300.0, EPA 300.0 Modified, SM 2320B, SM 4500 H+ B, SM 4500P-E OP, SM 5310B TOC

IV. PREPARATION

Samples were prepared following procedures in laboratory test code: EPA 300.0, EPA 300.0 Modified, SM 2320B, SM 4500 H+ B, SM 4500P-E OP, SM 5310B TOC

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: IC1
Instrument Type: IC
Description: DX-500
Manufacturer: Dionex
Model: DX-500
GC Column used: 0.25 m X 4 mm ID [um thickness] AS14A-7 capillary column.

Instrument Code: SPEC2
Instrument Type: SP
Description: Spectronic 20 Genesys
Manufacturer: Spectronic Instruments
Model: 4004-000

Instrument Code: TOC1
Instrument Type: TOC
Description: TOC
Manufacturer: Tekmar Dohrman
Model: Apollo 9000

Instrument Code: WC03
Instrument Type: Probe
Description: pH Meter
Manufacturer: Oakton Instruments
Model: Bench 2700 Series

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits with the following exceptions. Please note that most test procedures allow for several compounds outside of the QC limits for the LCS, although this may indicate a bias for this specific compound.

The LCS/LCSD-75885 for SM 5310B TOC analysis method control limit is 20 while these LCS duplicates had a 20.05% RPD. Due to forms limitations, this result is R flagged.

2. **Matrix Spike / Matrix Spike Duplicate (MS/MSD):**

Matrix spikes were performed on samples: MW-268M-20140130-01 (N0134-03AMS), MW-268M-20140130-01 (N0134-03AMSD), MW-561-20140130-01 (N0134-04DMS), MW-561-20140130-01 (N0134-04DMSD), REW-8-20140130-01 (N0134-08AMS) and REW-8-20140130-01 (N0134-08AMSD).

Percent recoveries were within the QC limits.

Replicate RPDs were within the advisory QC limits.

D. Duplicate sample:

No client-requested laboratory duplicate analyses were included in this SDG.

E. Dilutions:

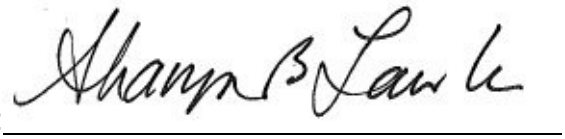
The following samples were analyzed at dilution:

MW-267S-20140130-01 (N0134-01A), dilution factor: 10 for Acetic Acid
MW-267M-20140130-01 (N0134-02A), dilution factor: 10 for Acetic Acid
MW-267M-20140130-01 (N0134-02D), dilution factor: 2 for Alkalinity, Total (As CaCO3) and Orthophosphate (As PO4)
MW-561-20140130-01 (N0134-04A), dilution factor: 10 for Acetic Acid
MW-561-20140130-01 (N0134-04C), dilution factor: 5 for Organic Carbon, Total
MW-553-20140130-01 (N0134-05A), dilution factor: 10 for Acetic Acid
REW-6-20140130-01 (N0134-06A), dilution factor: 10 for Acetic Acid
REW-7-20140130-01 (N0134-07A), dilution factor: 3 for Acetic Acid
REW-8-20140130-01 (N0134-08D), dilution factor: 2 for Orthophosphate (As PO4)
REW-9-20140130-01 (N0134-09A), dilution factor: 10 for Acetic Acid
REW-9-20140130-01 (N0134-09D), dilution factor: 2 for Orthophosphate (As PO4)

F. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 02/12/2014

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267S-20140130-01
Lab ID: N0134-01
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	3000	E	0.58	µg/L	1	02/07/2014 10:56	75852
Ethane	ND		1.2	µg/L	1	02/07/2014 10:56	75852
Ethene	15		1.5	µg/L	1	02/07/2014 10:56	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267S-20140130-01
Lab ID: N0134-01
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	4400		3.1	µg/L	5	02/07/2014 13:50	75852
Ethane	ND		6.3	µg/L	5	02/07/2014 13:50	75852
Ethene	ND		7.9	µg/L	5	02/07/2014 13:50	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267M-20140130-01
Lab ID: N0134-02
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	24000	E	0.58	µg/L	1	02/07/2014 11:03	75852
Ethane	ND		1.2	µg/L	1	02/07/2014 11:03	75852
Ethene	5.5		1.5	µg/L	1	02/07/2014 11:03	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267M-20140130-01
Lab ID: N0134-02
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	27000		31	µg/L	50	02/07/2014 13:00	75852
Ethane	ND		63	µg/L	50	02/07/2014 13:00	75852
Ethene	170		79	µg/L	50	02/07/2014 13:00	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-268M-20140130-01
Lab ID: N0134-03
Project: Raytheon - Wayland
Collection Date: 01/30/14 11:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	2600	E	0.58	µg/L	1	02/07/2014 11:11	75852
Ethane	44		1.2	µg/L	1	02/07/2014 11:11	75852
Ethene	9.6		1.5	µg/L	1	02/07/2014 11:11	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-268M-20140130-01
Lab ID: N0134-03
Project: Raytheon - Wayland
Collection Date: 01/30/14 11:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1900		3.1	µg/L	5	02/07/2014 13:20	75852
Ethane	ND		6.3	µg/L	5	02/07/2014 13:20	75852
Ethene	21		7.9	µg/L	5	02/07/2014 13:20	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-561-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-04 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	10000	E	0.58	µg/L	1	02/07/2014 11:20	75852
Ethane	43		1.2	µg/L	1	02/07/2014 11:20	75852
Ethene	21		1.5	µg/L	1	02/07/2014 11:20	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-561-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-04 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	7000		6.1	µg/L	10	02/07/2014 13:27	75852
Ethane	ND		13	µg/L	10	02/07/2014 13:27	75852
Ethene	19		16	µg/L	10	02/07/2014 13:27	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-553-20140130-01
Lab ID: N0134-05
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	20000	E	0.58	µg/L	1	02/07/2014 11:28	75852
Ethane	45		1.2	µg/L	1	02/07/2014 11:28	75852
Ethene	ND		1.5	µg/L	1	02/07/2014 11:28	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-553-20140130-01
Lab ID: N0134-05
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	18000		12	µg/L	20	02/07/2014 15:20	75852
Ethane	ND		25	µg/L	20	02/07/2014 15:20	75852
Ethene	ND		32	µg/L	20	02/07/2014 15:20	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-6-20140130-01
Lab ID: N0134-06
Project: Raytheon - Wayland
Collection Date: 01/30/14 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	9100	E	0.58	µg/L	1	02/07/2014 11:36	75852
Ethane	49		1.2	µg/L	1	02/07/2014 11:36	75852
Ethene	3.3		1.5	µg/L	1	02/07/2014 11:36	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-6-20140130-01
Lab ID: N0134-06
Project: Raytheon - Wayland
Collection Date: 01/30/14 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	7200		6.1	µg/L	10	02/07/2014 14:23	75852
Ethane	ND		13	µg/L	10	02/07/2014 14:23	75852
Ethene	ND		16	µg/L	10	02/07/2014 14:23	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-7-20140130-01
Lab ID: N0134-07
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	4100	E	0.58	µg/L	1	02/07/2014 11:45	75852
Ethane	89		1.2	µg/L	1	02/07/2014 11:45	75852
Ethene	61		1.5	µg/L	1	02/07/2014 11:45	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-7-20140130-01
Lab ID: N0134-07
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	4100		2.5	µg/L	4	02/07/2014 14:31	75852
Ethane	ND		5.1	µg/L	4	02/07/2014 14:31	75852
Ethene	36		6.3	µg/L	4	02/07/2014 14:31	75852

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-8-20140130-01
Lab ID: N0134-08
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	830		0.61	µg/L	1	02/10/2014 11:20	75868
Ethane	ND		1.3	µg/L	1	02/10/2014 11:20	75868
Ethene	ND		1.6	µg/L	1	02/10/2014 11:20	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-9-20140130-01
Lab ID: N0134-09
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1400	E	0.61	µg/L	1	02/10/2014 11:32	75868
Ethane	ND		1.3	µg/L	1	02/10/2014 11:32	75868
Ethene	ND		1.6	µg/L	1	02/10/2014 11:32	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-9-20140130-01
Lab ID: N0134-09
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1900		1.2	µg/L	2	02/10/2014 12:08	75868
Ethane	ND		2.5	µg/L	2	02/10/2014 12:08	75868
Ethene	ND		3.2	µg/L	2	02/10/2014 12:08	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-12-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-10 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1200	E	0.61	µg/L	1	02/10/2014 11:40	75868
Ethane	ND		1.3	µg/L	1	02/10/2014 11:40	75868
Ethene	2.6		1.6	µg/L	1	02/10/2014 11:40	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-12-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-10 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1400		3.1	µg/L	5	02/10/2014 13:09	75868
Ethane	ND		6.3	µg/L	5	02/10/2014 13:09	75868
Ethene	ND		7.9	µg/L	5	02/10/2014 13:09	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: TRIPBLANK
Lab ID: N0134-11
Project: Raytheon - Wayland
Collection Date: 01/30/14 0:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
RSK175 -- Dissolved Gases by GC-FID							**RSK175**
Methane	1.1		0.60	µg/L	1	02/10/2014 11:07	75868
Ethane	ND		1.2	µg/L	1	02/10/2014 11:07	75868
Ethene	ND		1.5	µg/L	1	02/10/2014 11:07	75868

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

RSK175

RSK175 -- Dissolved Gases by GC-FID

Sample ID: **MB-75852** SampType: **MBLK** TestCode: **RSK175** Prep Date: **02/07/14 7:03** Run ID: **V7_140207A**
Client ID: **MB-75852** Batch ID: **75852** Units: **µg/L** Analysis Date: **02/07/14 9:39** SeqNo: **2045614**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.37	0.61									
Ethane	ND	0.53	1.3									
Ethene	ND	0.73	1.6									

Sample ID: **MB-75868** SampType: **MBLK** TestCode: **RSK175** Prep Date: **02/10/14 8:46** Run ID: **V7_140210A**
Client ID: **MB-75868** Batch ID: **75868** Units: **µg/L** Analysis Date: **02/10/14 9:57** SeqNo: **2045625**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.36	0.60									
Ethane	ND	0.51	1.2									
Ethene	ND	0.71	1.5									

Sample ID: **LCS-75852** SampType: **LCS** TestCode: **RSK175** Prep Date: **02/07/14 7:03** Run ID: **V7_140207A**
Client ID: **LCS-75852** Batch ID: **75852** Units: **µg/L** Analysis Date: **02/07/14 8:54** SeqNo: **2045612**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	45.09	0.36	0.60	46.29	0	97.4	75	125	0			
Ethane	106.0	0.51	1.2	87.43	0	121	75	125	0			
Ethene	66.77	0.71	1.5	81.26	0	82.2	75	125	0			

Sample ID: **LCS-75868** SampType: **LCS** TestCode: **RSK175** Prep Date: **02/10/14 8:46** Run ID: **V7_140210A**
Client ID: **LCS-75868** Batch ID: **75868** Units: **µg/L** Analysis Date: **02/10/14 9:21** SeqNo: **2045623**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	36.50	0.36	0.60	46.29	0	78.9	75	125	0			
Ethane	106.1	0.51	1.2	87.43	0	121	75	125	0			
Ethene	72.97	0.71	1.5	81.26	0	89.8	75	125	0			

Sample ID: **LCSD-75852** SampType: **LCSD** TestCode: **RSK175** Prep Date: **02/07/14 7:03** Run ID: **V7_140207A**
Client ID: **LCSD-75852** Batch ID: **75852** Units: **µg/L** Analysis Date: **02/07/14 9:13** SeqNo: **2045613**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	36.56	0.36	0.60	46.29	0	79.0	75	125	45.09	20.9	30	
Ethane	108.2	0.51	1.2	87.43	0	124	75	125	106.0	2.04	30	
Ethene	68.67	0.71	1.5	81.26	0	84.5	75	125	66.77	2.81	30	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

RSK175

RSK175 -- Dissolved Gases by GC-FID

Sample ID: **LCSD-75868** SampType: **LCSD** TestCode: **RSK175** Prep Date: **02/10/14 8:46** Run ID: **V7_140210A**
Client ID: **LCSD-75868** Batch ID: **75868** Units: **µg/L** Analysis Date: **02/10/14 9:39** SeqNo: **2045624**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	36.78	0.36	0.60	46.29	0	79.5	75	125	36.50	0.753	30	
Ethane	104.5	0.51	1.2	87.43	0	120	75	125	106.1	1.52	30	
Ethene	68.96	0.71	1.5	81.26	0	84.9	75	125	72.97	5.65	30	

Qualifiers: ND - Not Detected at the MDL; J - Analyte detected below quanititation limits; S - Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; MDL - Method Detection Limit; RL - Reporting Limit; B - Analyte detected in the associated Method Blank

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267S-20140130-01
Lab ID: N0134-01
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	53000		200	ug/L	1	02/03/2014 16:01	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267M-20140130-01
Lab ID: N0134-02
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	140000		200	ug/L	1	02/03/2014 16:04	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-268M-20140130-01
Lab ID: N0134-03
Project: Raytheon - Wayland
Collection Date: 01/30/14 11:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	23000		200	ug/L	1	02/03/2014 16:08	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-561-20140130-01
Lab ID: N0134-04
Project: Raytheon - Wayland
Collection Date: 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	26000		200	ug/L	1	02/03/2014 16:11	75820

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-553-20140130-01
Lab ID: N0134-05
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	79000		200	ug/L	1	02/03/2014 16:15	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-6-20140130-01
Lab ID: N0134-06
Project: Raytheon - Wayland
Collection Date: 01/30/14 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	63000		200	ug/L	1	02/03/2014 16:25	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-7-20140130-01
Lab ID: N0134-07
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	29000		200	ug/L	1	02/03/2014 16:29	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-8-20140130-01
Lab ID: N0134-08
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	8600		200	ug/L	1	02/03/2014 16:33	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-9-20140130-01
Lab ID: N0134-09
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	32000		200	ug/L	1	02/03/2014 16:36	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-12-20140130-01
Lab ID: N0134-10
Project: Raytheon - Wayland
Collection Date: 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SW846 6010C -- Metals by ICP							**SW6010_W**
Iron	30000		200	ug/L	1	02/03/2014 16:40	75820

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

NO 33

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

SW6010_W
SW846 6010C -- Metals by ICP

Sample ID: **MB-75820**	SampType: **MBLK**	TestCode: **SW6010_W**	Prep Date: **02/03/14 9:35**	Run ID: **OPTIMA3_140203E**
Client ID: **MB-75820**	Batch ID: **75820**	Units: **ug/L**	Analysis Date: **02/03/14 15:50**	SeqNo: **2044245**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	31	200									

Sample ID: **LCS-75820**	SampType: **LCS**	TestCode: **SW6010_W**	Prep Date: **02/03/14 9:35**	Run ID: **OPTIMA3_140203E**
Client ID: **LCS-75820**	Batch ID: **75820**	Units: **ug/L**	Analysis Date: **02/03/14 15:54**	SeqNo: **2044246**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4543	31	200	4550	0	99.8	80	120	0			

Sample ID: **LCSD-75820**	SampType: **LCSD**	TestCode: **SW6010_W**	Prep Date: **02/03/14 9:35**	Run ID: **OPTIMA3_140203E**
Client ID: **LCSD-75820**	Batch ID: **75820**	Units: **ug/L**	Analysis Date: **02/03/14 15:57**	SeqNo: **2044247**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	4858	31	200	4550	0	107	80	120	4543	6.7	20	

Sample ID: **N0134-10ESD**	SampType: **SD**	TestCode: **SW6010_W**	Prep Date: **02/03/14 9:35**	Run ID: **OPTIMA3_140203E**
Client ID: **REW-12-20140130-0**	Batch ID: **75820**	Units: **ug/L**	Analysis Date: **02/03/14 16:43**	SeqNo: **2044260**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	29300	160	1000	0	0	0	0	0	29870	1.93	10	

Qualifiers:
ND - Not Detected at the MDL
J - Analyte detected below quanititation limits
S - Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MDL - Method Detection Limit
RL - Reporting Limit
B - Analyte detected in the associated Method Blank

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267S-20140130-01
Lab ID: N0134-01
Project: Raytheon - Wayland
Collection Date: 01/30/14 12:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	0.72	BJ	5.0	mg/L	1	02/06/2014 12:33	75833
Acetic Acid	400		50	mg/L	10	02/07/2014 9:38	75833
Propionic Acid	ND		5.0	mg/L	1	02/06/2014 12:33	75833
Butyric Acid	1.3	J	5.0	mg/L	1	02/06/2014 12:33	75833
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	44	B	2.0	mg/L	1	01/31/2014 13:29	75813
Nitrogen, Nitrate (As N)	0.067	BJ	0.13	mg/L	1	01/31/2014 13:29	75813
Sulfate	ND		5.0	mg/L	1	01/31/2014 13:29	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	210		20	mg/L CaCO3	1	02/03/2014 10:45	75816
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	5.8		1.0	S.U.	1	01/31/2014 12:00	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.45		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	250		10	mg/L	1	02/11/2014 12:54	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-267M-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-02 **Collection Date:** 01/30/14 12:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	ND		5.0	mg/L	1	02/06/2014 12:55	75833
Acetic Acid	550		50	mg/L	10	02/07/2014 11:11	75833
Propionic Acid	9.6		5.0	mg/L	1	02/06/2014 12:55	75833
Butyric Acid	6.7		5.0	mg/L	1	02/06/2014 12:55	75833
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	32	B	2.0	mg/L	1	01/31/2014 13:41	75813
Nitrogen, Nitrate (As N)	0.081	BJ	0.13	mg/L	1	01/31/2014 13:41	75813
Sulfate	0.74	J	5.0	mg/L	1	01/31/2014 13:41	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	350		40	mg/L CaCO3	2	02/03/2014 10:45	75816
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.2		1.0	S.U.	1	01/31/2014 12:03	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.39		0.10	mg/L	2	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	140		10	mg/L	1	02/11/2014 13:17	75885

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-268M-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-03 **Collection Date:** 01/30/14 11:25

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	ND		5.0	mg/L	1	02/06/2014 13:16	75833
Acetic Acid	1.5	J	5.0	mg/L	1	02/06/2014 13:16	75833
Propionic Acid	ND		5.0	mg/L	1	02/06/2014 13:16	75833
Butyric Acid	ND		5.0	mg/L	1	02/06/2014 13:16	75833
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	21	B	2.0	mg/L	1	01/31/2014 13:53	75813
Nitrogen, Nitrate (As N)	0.069	BJ	0.13	mg/L	1	01/31/2014 13:53	75813
Sulfate	41		5.0	mg/L	1	01/31/2014 13:53	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	84		20	mg/L CaCO3	1	02/03/2014 10:45	75816
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.6		1.0	S.U.	1	01/31/2014 12:06	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.31		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	2.8	J	10	mg/L	1	02/11/2014 13:40	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-561-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-04 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	0.52	BJ	5.0	mg/L	1	02/06/2014 14:20	75833
Acetic Acid	320		50	mg/L	10	02/07/2014 10:21	75833
Propionic Acid	1.1	J	5.0	mg/L	1	02/06/2014 14:20	75833
Butyric Acid	2.8	J	5.0	mg/L	1	02/06/2014 14:20	75833
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	27	B	2.0	mg/L	1	01/31/2014 14:05	75813
Nitrogen, Nitrate (As N)	0.070	BJ	0.13	mg/L	1	01/31/2014 14:05	75813
Sulfate	ND		5.0	mg/L	1	01/31/2014 14:05	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	210		20	mg/L CaCO3	1	02/03/2014 10:45	75816
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.5		1.0	S.U.	1	01/31/2014 12:09	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.28		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	500		50	mg/L	5	02/11/2014 17:17	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: MW-553-20140130-01
Lab ID: N0134-05
Project: Raytheon - Wayland
Collection Date: 01/30/14 10:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	1.6	J	5.0	mg/L	1	02/07/2014 13:17	75848
Acetic Acid	510		50	mg/L	10	02/10/2014 8:37	75848
Propionic Acid	7.8		5.0	mg/L	1	02/07/2014 13:17	75848
Butyric Acid	16		5.0	mg/L	1	02/07/2014 13:17	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	27	B	2.0	mg/L	1	01/31/2014 15:03	75813
Nitrogen, Nitrate (As N)	0.067	BJ	0.13	mg/L	1	01/31/2014 15:03	75813
Sulfate	ND		5.0	mg/L	1	01/31/2014 15:03	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	230		20	mg/L CaCO3	1	02/03/2014 10:45	75816
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	5.8		1.0	S.U.	1	01/31/2014 12:12	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.22		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	160		10	mg/L	1	02/11/2014 15:11	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-6-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-06 **Collection Date:** 01/30/14 9:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	0.71	J	5.0	mg/L	1	02/07/2014 13:39	75848
Acetic Acid	310		50	mg/L	10	02/10/2014 8:59	75848
Propionic Acid	0.54	J	5.0	mg/L	1	02/07/2014 13:39	75848
Butyric Acid	4.8	J	5.0	mg/L	1	02/07/2014 13:39	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	37	B	2.0	mg/L	1	01/31/2014 15:15	75813
Nitrogen, Nitrate (As N)	0.071	BJ	0.13	mg/L	1	01/31/2014 15:15	75813
Sulfate	14		5.0	mg/L	1	01/31/2014 15:15	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	130		20	mg/L CaCO3	1	02/06/2014 9:30	75838
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.4		1.0	S.U.	1	01/31/2014 12:15	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.36		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	110		10	mg/L	1	02/11/2014 15:33	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-7-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-07 **Collection Date:** 01/30/14 10:50

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	0.37	J	5.0	mg/L	1	02/07/2014 14:00	75848
Acetic Acid	140		15	mg/L	3	02/10/2014 9:20	75848
Propionic Acid	0.89	J	5.0	mg/L	1	02/07/2014 14:00	75848
Butyric Acid	0.70	J	5.0	mg/L	1	02/07/2014 14:00	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	20	B	2.0	mg/L	1	01/31/2014 15:27	75813
Nitrogen, Nitrate (As N)	0.074	BJ	0.13	mg/L	1	01/31/2014 15:27	75813
Sulfate	14		5.0	mg/L	1	01/31/2014 15:27	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	92		20	mg/L CaCO3	1	02/06/2014 9:30	75838
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.6		1.0	S.U.	1	01/31/2014 12:18	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.45		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	40		10	mg/L	1	02/11/2014 15:54	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-8-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-08 **Collection Date:** 01/30/14 12:55

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	ND		5.0	mg/L	1	02/07/2014 14:22	75848
Acetic Acid	ND		5.0	mg/L	1	02/07/2014 14:22	75848
Propionic Acid	ND		5.0	mg/L	1	02/07/2014 14:22	75848
Butyric Acid	ND		5.0	mg/L	1	02/07/2014 14:22	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	1.4	BJ	2.0	mg/L	1	01/31/2014 15:39	75813
Nitrogen, Nitrate (As N)	0.080	BJ	0.13	mg/L	1	01/31/2014 15:39	75813
Sulfate	8.7		5.0	mg/L	1	01/31/2014 15:39	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	ND		20	mg/L CaCO3	1	02/06/2014 9:30	75838
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.4		1.0	S.U.	1	01/31/2014 12:21	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.45		0.10	mg/L	2	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	13		10	mg/L	1	02/11/2014 16:15	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-9-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-09 **Collection Date:** 01/30/14 12:15

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	ND		5.0	mg/L	1	02/07/2014 15:47	75848
Acetic Acid	280		50	mg/L	10	02/10/2014 9:42	75848
Propionic Acid	2.1	J	5.0	mg/L	1	02/07/2014 15:47	75848
Butyric Acid	9.1		5.0	mg/L	1	02/07/2014 15:47	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	22	B	2.0	mg/L	1	01/31/2014 15:50	75813
Nitrogen, Nitrate (As N)	0.066	BJ	0.13	mg/L	1	01/31/2014 15:50	75813
Sulfate	ND		5.0	mg/L	1	01/31/2014 15:50	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	170		20	mg/L CaCO3	1	02/06/2014 9:30	75838
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	5.9		1.0	S.U.	1	01/31/2014 12:24	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.23		0.10	mg/L	2	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	85		10	mg/L	1	02/11/2014 16:35	75885

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

Client: Innovative Engineering Solutions, Inc.
Client Sample ID: REW-12-20140130-01 **Project:** Raytheon - Wayland
Lab ID: N0134-10 **Collection Date:** 01/30/14 9:10

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
EPA 300.0 Modified -- Volatile Organic Acids							**E300_VOA_W**
Lactic Acid	0.67	J	5.0	mg/L	1	02/07/2014 15:26	75848
Acetic Acid	83		5.0	mg/L	1	02/07/2014 15:26	75848
Propionic Acid	0.54	J	5.0	mg/L	1	02/07/2014 15:26	75848
Butyric Acid	1.1	J	5.0	mg/L	1	02/07/2014 15:26	75848
EPA 300.0 -- Anions by Ion Chromotography (LOW)							**E300IC_W**
Chloride	33	B	2.0	mg/L	1	01/31/2014 16:02	75813
Nitrogen, Nitrate (As N)	0.095	BJ	0.13	mg/L	1	01/31/2014 16:02	75813
Sulfate	31		5.0	mg/L	1	01/31/2014 16:02	75813
SM 2320B -- Alkalinity (Total)							**SM2320_W**
Alkalinity, Total (As CaCO3)	100		20	mg/L CaCO3	1	02/06/2014 9:30	75838
SM 4500 H+ B -- pH VALUE							**SM4500_H+**
pH	6.4		1.0	S.U.	1	01/31/2014 12:27	R79606
SM 4500P-E OP -- Orthophosphate							**SM4500_OP_W**
Orthophosphate (As PO4)	0.24		0.050	mg/L	1	01/31/2014 15:47	75815
SM 5310B TOC -- Total Organic Carbon by combustion							**SM5310B_TOC_W**
Organic Carbon, Total	25		10	mg/L	1	02/11/2014 16:57	75885

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DF - Dilution Factor
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

E300_VOA_W

EPA 300.0 Modified -- Volatile Organic Acids

Sample ID: **MB-75833** SampType: **MBLK** TestCode: **E300_VOA_W** Prep Date: **02/06/14 8:22** Run ID: **IC1_140206A**
Client ID: **MB-75833** Batch ID: **75833** Units: **mg/L** Analysis Date: **02/06/14 8:58** SeqNo: **2045222**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	1.380	0.18	5.0									J
Acetic Acid	ND	0.20	5.0									
Propionic Acid	ND	0.22	5.0									
Butyric Acid	ND	0.33	5.0									

Sample ID: **MB-75848** SampType: **MBLK** TestCode: **E300_VOA_W** Prep Date: **02/07/14 8:07** Run ID: **IC1_140207A**
Client ID: **MB-75848** Batch ID: **75848** Units: **mg/L** Analysis Date: **02/07/14 12:15** SeqNo: **2045643**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	ND	0.18	5.0									
Acetic Acid	ND	0.20	5.0									
Propionic Acid	ND	0.22	5.0									
Butyric Acid	ND	0.33	5.0									

Sample ID: **LCS-75833** SampType: **LCS** TestCode: **E300_VOA_W** Prep Date: **02/06/14 8:22** Run ID: **IC1_140206A**
Client ID: **LCS-75833** Batch ID: **75833** Units: **mg/L** Analysis Date: **02/06/14 9:20** SeqNo: **2045223**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	51.54	0.18	5.0	50.00	0	103	75	125	0			B
Acetic Acid	47.08	0.20	5.0	50.00	0	94.2	75	125	0			
Propionic Acid	45.95	0.22	5.0	50.00	0	91.9	75	125	0			
Butyric Acid	46.57	0.33	5.0	50.00	0	93.1	75	125	0			

Sample ID: **LCS-75848** SampType: **LCS** TestCode: **E300_VOA_W** Prep Date: **02/07/14 8:07** Run ID: **IC1_140207A**
Client ID: **LCS-75848** Batch ID: **75848** Units: **mg/L** Analysis Date: **02/07/14 12:56** SeqNo: **2045644**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	57.16	0.18	5.0	50.00	0	114	75	125	0			
Acetic Acid	50.15	0.20	5.0	50.00	0	100	75	125	0			
Propionic Acid	48.68	0.22	5.0	50.00	0	97.4	75	125	0			
Butyric Acid	46.77	0.33	5.0	50.00	0	93.5	75	125	0			

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

E300_VOA_W

EPA 300.0 Modified -- Volatile Organic Acids

Sample ID: **N0134-03AMS** SampType: **MS** TestCode: **E300_VOA_W** Prep Date: **02/06/14 8:22** Run ID: **IC1_140206A**
Client ID: **MW-268M-20140130** Batch ID: **75833** Units: **mg/L** Analysis Date: **02/06/14 13:37** SeqNo: **2045206**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	59.49	0.18	5.0	50.00	0	119	75	125	0			B
Acetic Acid	49.53	0.20	5.0	50.00	1.494	96.1	75	125	0			
Propionic Acid	45.67	0.22	5.0	50.00	0	91.3	75	125	0			
Butyric Acid	47.34	0.33	5.0	50.00	0	94.7	75	125	0			

Sample ID: **N0134-08AMS** SampType: **MS** TestCode: **E300_VOA_W** Prep Date: **02/07/14 8:07** Run ID: **IC1_140207A**
Client ID: **REW-8-20140130-01** Batch ID: **75848** Units: **mg/L** Analysis Date: **02/07/14 14:43** SeqNo: **2045647**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	59.46	0.18	5.0	50.00	0	119	75	125	0			
Acetic Acid	49.87	0.20	5.0	50.00	0	99.7	75	125	0			
Propionic Acid	47.76	0.22	5.0	50.00	0	95.5	75	125	0			
Butyric Acid	46.77	0.33	5.0	50.00	0	93.5	75	125	0			

Sample ID: **N0134-03AMSD** SampType: **MSD** TestCode: **E300_VOA_W** Prep Date: **02/06/14 8:22** Run ID: **IC1_140206A**
Client ID: **MW-268M-20140130** Batch ID: **75833** Units: **mg/L** Analysis Date: **02/06/14 13:59** SeqNo: **2045207**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	60.86	0.18	5.0	50.00	0	122	75	125	59.49	2.28	25	B
Acetic Acid	50.29	0.20	5.0	50.00	1.494	97.6	75	125	49.53	1.51	25	
Propionic Acid	46.93	0.22	5.0	50.00	0	93.9	75	125	45.67	2.72	25	
Butyric Acid	48.68	0.33	5.0	50.00	0	97.4	75	125	47.34	2.79	25	

Sample ID: **N0134-08AMSD** SampType: **MSD** TestCode: **E300_VOA_W** Prep Date: **02/07/14 8:07** Run ID: **IC1_140207A**
Client ID: **REW-8-20140130-01** Batch ID: **75848** Units: **mg/L** Analysis Date: **02/07/14 15:04** SeqNo: **2045648**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lactic Acid	60.47	0.18	5.0	50.00	0	121	75	125	59.46	1.69	25	
Acetic Acid	50.24	0.20	5.0	50.00	0	100	75	125	49.87	0.741	25	
Propionic Acid	47.92	0.22	5.0	50.00	0	95.8	75	125	47.76	0.337	25	
Butyric Acid	46.88	0.33	5.0	50.00	0	93.8	75	125	46.77	0.244	25	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

E300IC_W

EPA 300.0 -- Anions by Ion Chromotography (LOW)

Sample ID: **MB-75813**	SampType: **MBLK**	TestCode: **E300IC_W**	Prep Date: **01/31/14 11:25**	Run ID: **IC1_140131A**
Client ID: **MB-75813**	Batch ID: **75813**	Units: **mg/L**	Analysis Date: **01/31/14 13:06**	SeqNo: **2044059**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.3631	0.078	2.0									J
Nitrogen, Nitrate (As N)	0.08116	0.023	0.13									J
Sulfate	ND	0.61	5.0									

Sample ID: **LCS-75813**	SampType: **LCS**	TestCode: **E300IC_W**	Prep Date: **01/31/14 11:25**	Run ID: **IC1_140131A**
Client ID: **LCS-75813**	Batch ID: **75813**	Units: **mg/L**	Analysis Date: **01/31/14 13:18**	SeqNo: **2044060**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	15.18	0.078	2.0	16.00	0	94.9	90	110	0			B
Nitrogen, Nitrate (As N)	0.9385	0.023	0.13	1.000	0	93.9	90	110	0			B
Sulfate	37.74	0.61	5.0	40.00	0	94.3	90	110	0			

Sample ID: **N0134-04DMS**	SampType: **MS**	TestCode: **E300IC_W**	Prep Date: **01/31/14 11:25**	Run ID: **IC1_140131A**
Client ID: **MW-561-20140130-0**	Batch ID: **75813**	Units: **mg/L**	Analysis Date: **01/31/14 14:16**	SeqNo: **2044068**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	41.86	0.078	2.0	16.00	26.66	95.0	80	120	0			B
Nitrogen, Nitrate (As N)	0.9656	0.023	0.13	1.000	0.07002	89.6	80	120	0			B
Sulfate	39.10	0.61	5.0	40.00	0	97.7	80	120	0			

Sample ID: **N0134-04DMSD**	SampType: **MSD**	TestCode: **E300IC_W**	Prep Date: **01/31/14 11:25**	Run ID: **IC1_140131A**
Client ID: **MW-561-20140130-0**	Batch ID: **75813**	Units: **mg/L**	Analysis Date: **01/31/14 14:28**	SeqNo: **2044069**

Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	42.60	0.078	2.0	16.00	26.66	99.6	80	120	41.86	1.74	20	B
Nitrogen, Nitrate (As N)	0.9915	0.023	0.13	1.000	0.07002	92.1	80	120	0.9656	2.65	20	B
Sulfate	40.39	0.61	5.0	40.00	0	101	80	120	39.10	3.25	20	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

SM2320_W
SM 2320B -- Alkalinity (Total)

Sample ID: **MB-75816**	SampType: **MBLK**	TestCode: **SM2320_W**			Prep Date: **02/03/14 10:45**			Run ID: **MANUAL_140203A**				
Client ID: **MB-75816**	Batch ID: **75816**	Units: **mg/L CaCO3**			Analysis Date: **02/03/14 10:45**			SeqNo: **2044136**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	20	20									

Sample ID: **MB-75838**	SampType: **MBLK**	TestCode: **SM2320_W**			Prep Date: **02/06/14 9:30**			Run ID: **MANUAL_140206A**				
Client ID: **MB-75838**	Batch ID: **75838**	Units: **mg/L CaCO3**			Analysis Date: **02/06/14 9:30**			SeqNo: **2045005**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	20	20									

Sample ID: **LCS-75816**	SampType: **LCS**	TestCode: **SM2320_W**			Prep Date: **02/03/14 10:45**			Run ID: **MANUAL_140203A**				
Client ID: **LCS-75816**	Batch ID: **75816**	Units: **mg/L CaCO3**			Analysis Date: **02/03/14 10:45**			SeqNo: **2044134**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	101.0	20	20	100.0	0	101	80	120	0			

Sample ID: **LCS-75838**	SampType: **LCS**	TestCode: **SM2320_W**			Prep Date: **02/06/14 9:30**			Run ID: **MANUAL_140206A**				
Client ID: **LCS-75838**	Batch ID: **75838**	Units: **mg/L CaCO3**			Analysis Date: **02/06/14 9:30**			SeqNo: **2045003**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	97.00	20	20	100.0	0	97.0	80	120	0			

Sample ID: **LCSD-75816**	SampType: **LCSD**	TestCode: **SM2320_W**			Prep Date: **02/03/14 10:45**			Run ID: **MANUAL_140203A**				
Client ID: **LCSD-75816**	Batch ID: **75816**	Units: **mg/L CaCO3**			Analysis Date: **02/03/14 10:45**			SeqNo: **2044135**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	99.00	20	20	100.0	0	99.0	80	120	101.0	2.0	20	

Sample ID: **LCSD-75838**	SampType: **LCSD**	TestCode: **SM2320_W**			Prep Date: **02/06/14 9:30**			Run ID: **MANUAL_140206A**				
Client ID: **LCSD-75838**	Batch ID: **75838**	Units: **mg/L CaCO3**			Analysis Date: **02/06/14 9:30**			SeqNo: **2045004**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	99.00	20	20	100.0	0	99.0	80	120	97.00	2.04	20	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

SM4500_OP_W
SM 4500P-E OP -- Orthophosphate

Sample ID: **MB-75815**	SampType: **MBLK**	TestCode: **SM4500_OP_W**			Prep Date: **01/31/14 15:47**			Run ID: **SPEC2_140131A**				
Client ID: **MB-75815**	Batch ID: **75815**	Units: **mg/L**			Analysis Date: **01/31/14 15:47**			SeqNo: **2044639**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate (As PO4)	ND	0.050	0.050									

Sample ID: **LCS-75815**	SampType: **LCS**	TestCode: **SM4500_OP_W**			Prep Date: **01/31/14 15:47**			Run ID: **SPEC2_140131A**				
Client ID: **LCS-75815**	Batch ID: **75815**	Units: **mg/L**			Analysis Date: **01/31/14 15:47**			SeqNo: **2044637**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate (As PO4)	0.3620	0.050	0.050	0.4128	0	87.7	80	120	0			

Sample ID: **LCSD-75815**	SampType: **LCSD**	TestCode: **SM4500_OP_W**			Prep Date: **01/31/14 15:47**			Run ID: **SPEC2_140131A**				
Client ID: **LCSD-75815**	Batch ID: **75815**	Units: **mg/L**			Analysis Date: **01/31/14 15:47**			SeqNo: **2044638**				
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate (As PO4)	0.3650	0.050	0.050	0.4128	0	88.4	80	120	0.3620	0.825	20	

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank
J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

CLIENT: Innovative Engineering Solutions, Inc.
Work Order: N0134
Project: Raytheon - Wayland

ANALYTICAL QC SUMMARY REPORT

SM5310B_TOC_W

SM 5310B TOC -- Total Organic Carbon by combustion

Sample ID: **MB-75885**	SampType: **MBLK**	TestCode: **SM5310B_TOC_W**			Prep Date: **02/11/14 8:47**			Run ID: **TOC1_140211A**			
Client ID: **MB-75885**	Batch ID: **75885**	Units: **mg/L**			Analysis Date: **02/11/14 10:22**			SeqNo: **2046228**			
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	2.0	10									

Sample ID: **LCS-75885**	SampType: **LCS**	TestCode: **SM5310B_TOC_W**			Prep Date: **02/11/14 8:47**			Run ID: **TOC1_140211A**			
Client ID: **LCS-75885**	Batch ID: **75885**	Units: **mg/L**			Analysis Date: **02/11/14 10:43**			SeqNo: **2046229**			
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	50.91	2.0	10	60.00	0	84.8	80	120	0			

Sample ID: **LCSD-75885**	SampType: **LCSD**	TestCode: **SM5310B_TOC_W**			Prep Date: **02/11/14 8:47**			Run ID: **TOC1_140211A**			
Client ID: **LCSD-75885**	Batch ID: **75885**	Units: **mg/L**			Analysis Date: **02/11/14 11:05**			SeqNo: **2046230**			
Analyte	Result	MDL	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	62.25	2.0	10	60.00	0	104	80	120	50.91	20.1	20	R

Qualifiers: ND - Not Detected at the MDL; S - Recovery outside accepted recovery limits; MDL - Method Detection Limit; B - Analyte detected in the associated Method Blank; J - Analyte detected below quanititation limits; R - RPD outside accepted recovery limits; RL - Reporting Limit

Report Date:
07-Feb-14 11:06

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Spectrum Analytical, Inc.
646 Camp Ave.
North Kingstown, RI 02852
Attn: Agnes Huntley

Project: Raytheon-Wayland
Project #: N0134

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB84120-01	MW-267S-20140130-01	Aqueous	30-Jan-14 12:50	31-Jan-14 16:45
SB84120-02	MW-267M-20140130-01	Aqueous	30-Jan-14 12:10	31-Jan-14 16:45
SB84120-03	MW-268M-20140130-01	Aqueous	30-Jan-14 11:25	31-Jan-14 16:45
SB84120-04	MW-561-20140130-01	Aqueous	30-Jan-14 09:10	31-Jan-14 16:45
SB84120-05	MW-553-20140130-01	Aqueous	30-Jan-14 10:30	31-Jan-14 16:45
SB84120-06	REW-6-20140130-01	Aqueous	30-Jan-14 09:55	31-Jan-14 16:45
SB84120-07	REW-7-20140130-01	Aqueous	30-Jan-14 10:50	31-Jan-14 16:45
SB84120-08	REW-8-20140130-01	Aqueous	30-Jan-14 12:55	31-Jan-14 16:45
SB84120-09	REW-9-20140130-01	Aqueous	30-Jan-14 12:15	31-Jan-14 16:45
SB84120-10	REW-12-20140130-01	Aqueous	30-Jan-14 09:10	31-Jan-14 16:45

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 7 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

The samples were received -0.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

Sample Acceptance Check Form

Client:	Spectrum Analytical, Inc. - North Kingstown, RI
Project:	Raytheon-Wayland / N0134
Work Order:	SB84120
Sample(s) received on:	1/31/2014
Received by:	Allison Edens

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
1. Were custody seals present?	☐	☑	☐
2. Were custody seals intact?	☐	☐	☑
3. Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
4. Were samples cooled on ice upon transfer to laboratory representative?	☐	☑	☐
5. Were samples refrigerated upon transfer to laboratory representative?	☑	☐	☐
6. Were sample containers received intact?	☑	☐	☐
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
8. Were samples accompanied by a Chain of Custody document?	☑	☐	☐
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☐	☑	☐
10. Did sample container labels agree with Chain of Custody document?	☑	☐	☐
11. Were samples received within method-specific holding times?	☑	☐	☐

Sample Identification
MW-267S-20140130-01
SB84120-01

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 12:50	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.350**		mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
MW-267M-20140130-01
SB84120-02

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 12:10	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.210**		mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
MW-268M-20140130-01
SB84120-03

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 11:25	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.140**	J	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
MW-561-20140130-01
SB84120-04

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 09:10	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.630**		mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
MW-553-20140130-01
SB84120-05

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 10:30	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	< 0.200	U	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
REW-6-20140130-01
SB84120-06

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 09:55	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.210**		mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
REW-7-20140130-01
SB84120-07

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 10:50	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	< 0.200	U	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
REW-8-20140130-01
SB84120-08

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 12:55	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	**0.140**	J	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
REW-9-20140130-01
SB84120-09

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 12:15	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	< 0.200	U	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

Sample Identification
REW-12-20140130-01
SB84120-10

Client Project #	Matrix	Collection Date/Time	Received
N0134	Aqueous	30-Jan-14 09:10	31-Jan-14

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	Ammonia as N	< 0.200	U	mg/l	0.200	0.118	1	SM4500-NH3 C.	04-Feb-14	04-Feb-14	EEM	1402688	X

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1402688 - General Preparation										
Blank (1402688-BLK1)						Prepared & Analyzed: 04-Feb-14				
Ammonia as N	< 0.200	U	mg/l	0.200						
LCS (1402688-BS1)						Prepared & Analyzed: 04-Feb-14				
Ammonia as N	**4.83**		mg/l	0.200	5.00		97	90-110		
Reference (1402688-SRM1)						Prepared & Analyzed: 04-Feb-14				
Ammonia as N	**0.980**		mg/l	0.200	1.04		95	84-116		

Notes and Definitions

J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Kimberly Wisk

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN-OF-CUSTODY RECORD

WorkOrder : N0134
Project: Raytheon - Wayland
Report Type : LEVEL 2
Due Date : 2/12/2014
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : N0134
EDD Types : **Please generate a Little PEL EDD**

Subcontractor:
Spectrum Analytical, Inc. - Agawam, MA
11 Almgren Drive
Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	SM4500_NH3_W
MW-267S-20140130-01 SB 84120-01	01/30/2014 12:50	1	Aqueous		N0134-01F	X
MW-267M-20140130-01 02	01/30/2014 12:10	1	Aqueous		N0134-02F	X
MW-268M-20140130-01 03	01/30/2014 11:25	1	Aqueous		N0134-03F	X
MW-561-20140130-01 04	01/30/2014 09:10	1	Aqueous		N0134-04F	X
MW-553-20140130-01 05	01/30/2014 10:30	1	Aqueous		N0134-05F	X
REW-6-20140130-01 06	01/30/2014 09:55	1	Aqueous		N0134-06F	X

1) SM4500_NH3_W, NITROGEN (AMMONIA)

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments:

0.6/-1/-0.4 IR 01
AME 01-31-14

		Date/Time			Date/Time
Relinquished by:	Agnes R Huntley	01/31/14 11:12	**Received by:**		1-31-14 1120
Relinquished by:			**Received by:**	AME	01-31-14 16:45

01/31/2014
Page 1 of 2

SB 84120 SM1

CHAIN-OF-CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

WorkOrder : N0134
Project: Raytheon - Wayland
Report Type : LEVEL 2
Due Date : 2/12/2014
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : N0134
EDD Types : **Please generate a Little PEL EDD**

Subcontractor:
Spectrum Analytical, Inc. - Agawam, MA
11 Almgren Drive
Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test

SM4500_NH3_W

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	SM4500_NH3_W
REW-7-20140130-01 SB 841207	01/30/2014 10:50	1	Aqueous		N0134-07F	X
REW-8-20140130-01 08	01/30/2014 12:55	1	Aqueous		N0134-08F	X
REW-9-20140130-01 09	01/30/2014 12:15	1	Aqueous		N0134-09F	X
REW-12-20140130-01 10	01/30/2014 09:10	1	Aqueous		N0134-10F	X

1) SM4500_NH3_W, NITROGEN (AMMONIA)

0.61-11-04 IR 01
AME 01-31-14

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments:

		Date/Time			Date/Time
Relinquished by:	Agnes R Huntley	01/31/14 11:12	**Received by:**		1-31-14 11:20
Relinquished by:			**Received by:**	AME	01-31-14 16:45

01/31/2014
Page 2 of 2

646 Camp Ave * North Kingstown * RI * 028524008 * 401-732-3400 * 401-732-3499
www.spectrum-analytical.com

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: N0134

Client ID: IESI
Project: Raytheon - Wayland
WO Name: Raytheon - Wayland
Location: IESI_WAYLAND,
Comments: N/A

Case:
SDG:
PO: RA-006

HC Due: 02/12/14
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
N0134-01A	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-01B	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	RSK175	/					VOA
N0134-01C	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-01D	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-01D	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-01D	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-01D	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-01E	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-01F	MW-267S-20140130-01	01/30/2014 12:50	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-02A	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-02B	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	RSK175	/					VOA
N0134-02C	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-02D	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-02D	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-02D	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-02D	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-02E	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-02F	MW-267M-20140130-01	01/30/2014 12:10	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-03A	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-03B	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	RSK175	/					VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

02/03/2014 11:21 Lab Client Rep: Agnes R Huntley

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: N0134

Client ID: IESI
Project: Raytheon - Wayland
WO Name: Raytheon - Wayland
Location: IESI_WAYLAND,
Comments: N/A

Case:
SDG:
PO: RA-006

HC Due: 02/12/14
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
N0134-03C	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-03D	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-03D	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-03D	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-03D	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-03E	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-03F	MW-268M-20140130-01	01/30/2014 11:25	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-04A	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-04B	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	RSK175	/					VOA
N0134-04C	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-04D	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-04D	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-04D	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-04D	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-04E	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-04F	MW-561-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-05A	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-05B	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	RSK175	/					VOA
N0134-05C	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Lab Client Rep: Agnes R Huntley

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: N0134

Client ID: IESI
Project: Raytheon - Wayland
WO Name: Raytheon - Wayland
Location: IESI_WAYLAND,
Comments: N/A

Case:
SDG:
PO: RA-006

HC Due: 02/12/14
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
N0134-05D	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-05D	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-05D	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-05D	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-05E	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-05F	MW-553-20140130-01	01/30/2014 10:30	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-06A	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-06B	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	RSK175	/					VOA
N0134-06C	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-06D	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-06D	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-06D	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-06D	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-06E	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-06F	REW-6-20140130-01	01/30/2014 09:55	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-07A	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-07B	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	RSK175	/					VOA
N0134-07C	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-07D	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-07D	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SM2320_W	/					N3

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: N0134

Client ID: IESI
Project: Raytheon - Wayland
WO Name: Raytheon - Wayland
Location: IESI_WAYLAND,
Comments: N/A

Case:
SDG:
PO: RA-006

HC Due: 02/12/14
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
N0134-07D	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-07D	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-07E	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-07F	REW-7-20140130-01	01/30/2014 10:50	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-08A	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-08B	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	RSK175	/					VOA
N0134-08C	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-08D	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-08D	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-08D	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-08D	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-08E	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-08F	REW-8-20140130-01	01/30/2014 12:55	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-09A	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-09B	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	RSK175	/					VOA
N0134-09C	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-09D	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-09D	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-09D	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-09D	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SM4500_OP_W	/					N3

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: N0134

Client ID: IESI
Project: Raytheon - Wayland
WO Name: Raytheon - Wayland
Location: IESI_WAYLAND,
Comments: N/A

Case:
SDG:
PO: RA-006

HC Due: 02/12/14
Fax Due:
Fax Report: ☐

Report Level: LEVEL 2
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
N0134-09E	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-09F	REW-9-20140130-01	01/30/2014 12:15	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-10A	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	E300_VOA_W	/				Y	N3
N0134-10B	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	RSK175	/					VOA
N0134-10C	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM5310B_TOC_W	/					R22
N0134-10D	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	E300IC_W	/ NO3,Cl,SO4				Y	N3
N0134-10D	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM2320_W	/					N3
N0134-10D	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_H+	/					N3
N0134-10D	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_OP_W	/					N3
N0134-10E	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SW6010_W	/ Fe only				Y	M3
N0134-10F	REW-12-20140130-01	01/30/2014 09:10	01/31/2014	Aqueous	SM4500_NH3_W	/ SPECTRUM--sub to Agawam					SUB
N0134-11A	TRIPBLANK	01/30/2014 00:00	01/31/2014	Aqueous	RSK175	/					VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

N0134

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
☐ 8405 Benjamin Road, Ste A, Tampa, FL 33634, (813) 888-9507
☐ 646 Camp Avenue, N Kingstown, RI 02852, (401) 732-3400

Special Handling:

TAT- Ind icate Date Needed: ________
· All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
· Samples disposed of after 60 days unless otherwise instructed.

Report To: Innovative Engineering Solutions Inc, 25 Spring St, Walpole MA 02081
Telephone #: 508-668-0033
Project Mgr. Vicki Parlyan

Invoice To: Innovative Engineering Solutions Inc, 25 Spring St, Walpole, MA 02081
P.O. No.: RA-008 RQN: ________

Project No.: RA-008
Site Name: Raytheon - Wayland
Location: Wayland State: MA
Sampler(s): Davy Jones, Derrek Rolls

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11=________ 12=________

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=________ X2=________ X3=________

G=Grab C=Composite

List preservative code below: 2 | 10 | | 4 | 3

N0134 Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Dissolved Gases	TOC	Organic Acids	Total Iron	NH_3	[illegible] pH Alkalinity
01	MW-267S-20140130-01	1/30/14	1250	G	GW	6			3	X	X	X	X	X	X
02	MW-267M-20140130-01	1/30/14	1210	G	GW	6			3	X	X	X	X	X	X
03	MW-268M-20140130-01	1/30/14	1125	G	GW	6			3	X	X	X	X	X	X
04	MW-561-20140130-01	1/30/14	0910	G	GW	6			3	X	X	X	X	X	X
05	MW-553-20140130-01	1/30/14	1030	G	GW	6			3	X	X	X	X	X	X
06	REW-6-20140130-01	1/30/14	0955	G	GW	6			3	X	X	X	X	X	X
07	REW-7-20140130-01	1/30/14	1050	G	GW	6			3	X	X	X	X	X	X
08	REW-8-20140130-01	1/30/14	1255	G	GW	6			3	X	X	X	X	X	X
09	REW-9-20140130-01	1/30/14	1215	G	GW	6			3	X	X	X	X	X	X
10	REW-10-20140130-01	1/30/14	0910	G	GW	6			3	X	X	X	X	X	X

0.6/-1/0.4 IR cl JCH 1/30

QA/QC Reporting Notes:

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other ________

State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:
[signature]	Kutani	1/30/14	1510
Subout	Subout	1/30/14	1710
[signature]	[signature]	1-31-14	0820
[signature]	[signature]	1/31/14	11:08

Temp°C

☐ EDD Format ________
☐ E-mail to vparlyan@IESonline.com

Condition upon receipt: ☐ Ambient ☒ Iced ☒ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen
Custody Seals: ☐ Present ☐ Intact ☐ Broken

www.spectrum-analytical.com

Revised Feb 2013

N0134

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Page 2 of 2

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
☐ 8405 Benjamin Road, Ste A, Tampa, FL 33634, (813) 888-9507
☐ 646 Camp Avenue, N Kingstown, RI 02852, (401) 732-3400

Special Handling:

TAT- Indicate Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: Innovative Engineering Solutions Inc
25 Spring St
Walpole MA 02081

Telephone #: 508-668-0033
Project Mgr. Mitch Pheiffer

Invoice To: Innovative Engineering Solutions Inc
25 Spring St
Walpole MA 02081

P.O. No.: RA-008 RQN: _____

Project No.: RA-008
Site Name: Raytheon - Wayland
Location: Wayland State: MA
Sampler(s): Danny Jones Darren Rolls

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List preservative code below: 2

QA/QC Reporting Notes:

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id: (N0134)	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses:
11	Trip Blank	—	—	—	—	2				

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other _____

State-specific reporting standards:
_____

0.6/-1.4 IR1
JLH 1/30

Relinquished by:	Received by:	Date:	Time:	Temp°C
		1/30/14	15:10	
		1/30/14	17:10	
		1-31-14	8:30	
		1/31/14	11:08	

☐ EDD Format _____
☒ E-mail to vipraipe@testamerica.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Received By:	Page 01 of 00
Reviewed By:	Log-in Date 01/31/2014
Work Order: N0134	Client Name: Innovative Engineering Solutions, Inc.
Project Name/Event: Raytheon - Wayland	

Remarks: (1/2) Please see associated sample/extract transfer logbook pages submitted with this data package.

1. Custody Seal(s) — Present / Absent (Present circled); Intact / Broken (Intact circled)
2. Custody Seal Nos. — N/A
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists — Present / Absent (Present circled)
4. Airbill — AirBill / Sticker (AirBill circled); Present / Absent (Present circled)
5. Airbill No. — Courier N/A
6. Sample Tags — Present / Absent (Absent circled)
   Sample Tag Numbers — Listed / Not Listed on Chain-of-Custody (Not Listed on Chain-of-Custody circled)
7. Sample Condition — Intact / Broken/ Leaking (Intact circled)
8. Cooler Temperature Indicator Bottle — Present / Absent (Absent circled)

9. Cooler Temperature	2.3 °C
10. Does information on TR/COCs and sample tags agree?	Yes / No (No circled)
11. Date Received at Laboratory	01/31/2014
12. Time Received	11:08

Lab Sample ID	Preservation (pH) HNO3	H2SO4	HCl	NaOH	H3PO4	VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
N0134-01	<2	<2			<2	H	
N0134-02	<2	<2			<2	H	
N0134-03	<2	<2			<2	H	
N0134-04	<2	<2			<2	H	
N0134-05	<2	<2			<2	H	
N0134-06	<2	<2			<2	H	
N0134-07	<2	<2			<2	H	
N0134-08	<2	<2			<2	H	
N0134-09	<2	<2			<2	H	
N0134-10	<2	<2			<2	H	
N0134-11						H	

Sample Transfer	
Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area #
By	By
On	On

IR Temp Gun ID:MT-74

CoolantCondition: ICE

Preservative Name/Lot No:

VOA Matrix Key:

US = Unpreserved Soil	A= Air
UA = Unpreserved Aqueous	H = HCl
M = MeOH	E = Encore
N = NaHSO4	F = Freeze

See Sample Condition Notification/Corrective Action Form Yes / No (No circled)

Rad OK Yes / No (Yes circled)

Last Page of Data Report