Environmental Resources Management

399 Boylston Street, 6th Floor
Boston, MA 02116
(617) 646-7800
(617) 267-6447 (fax)

http://www.erm.com

25 April 2011
Reference: 0131386

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).

ERM collected groundwater samples from 22 wells on portions of the Site within the boundaries of your property on 4, 5, 6, and 7 April 2011. Samples were submitted to Alpha Analytical, Inc. of Westborough, Massachusetts for analysis of chlorinated volatile organic compounds by US EPA Method 8260B, and/or 1,4 Dioxane by US EPA Method 8270SIM. Additionally, ERM used a colorimetric method to analyze groundwater samples from another 10 monitoring wells. Analytical results are attached to this letter. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required 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, the Wayland Public Library Public Involvement Plan files, or at www.ermne.com (username = raytheon, password = wayland).

If you have any questions or comments, please contact the undersigned at (617) 646-7800 or Jonathan Hone, Raytheon Company, at (978) 436-8238.

Sincerely,

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

Jason D. Flattery, P.E.
Project Manager

enclosures: BWSC-123 – Notice of Environmental Sampling
Laboratory analytical reports

cc: Jonathan Hone, Raytheon Company
Louis Burkhardt, 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.

ANALYTICAL REPORT

Lab Number:	L1104398
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0131386.01
Report Date:	04/11/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104398
Report Date: 04/11/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104398-01	MW-266MA-20110404-01	WAYLAND, MA	04/04/11 13:20
L1104398-02	MW-267S-20110404-01	WAYLAND, MA	04/04/11 13:00
L1104398-03	MW-267M-20110404-01	WAYLAND, MA	04/04/11 14:30
L1104398-04	DUP-002-20110404-01	WAYLAND, MA	04/04/11 12:12
L1104398-05	MW-268D-20110404-01	WAYLAND, MA	04/04/11 14:35
L1104398-06	TB-001-20110404-01	WAYLAND, MA	04/04/11 00:00

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104398
Project Number:	0131386.01	**Report Date:**	04/11/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398
Project Number: 0131386.01 **Report Date:** 04/11/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

The analysis of 1,4-Dioxane by method 8270-SIM isotope dilution is being performed at our Mansfield facility, and the results will be issued under separate cover.

Volatile Organics

L1104398-02, -03 and -04 were re-analyzed on dilutions in order to quantitate the samples within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analyses were performed only for the compounds that exceeded the calibration range.

In reference to question H:

The WG462392-2 LCSD recovery, associated with L1104398-02, -03 and -05, is below the acceptance

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104398
Project Number:	0131386.01	**Report Date:**	04/11/11

Case Narrative (continued)

criteria for Dichlorodifluoromethane (65%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

The WG462392-4 MS recoveries, performed on L1104398-05, were above the acceptance criteria for 1,1-Dichloroethene (134%) and Trichloroethene (133%); however, the associated LCS/LCSD recoveries were within criteria. The results of the sample utilized for the MS/MSD are considered to have a potentially high bias for these compounds.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 04/11/11

ORGANICS

VOLATILES

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-01
Client ID: MW-266MA-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/07/11 18:55
Analyst: MM

Date Collected: 04/04/11 13:20
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	6.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.3		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-01 Date Collected: 04/04/11 13:20

Client ID: MW-266MA-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	112		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-02
Client ID: MW-267S-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/08/11 14:06
Analyst: MM

Date Collected: 04/04/11 13:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.3		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	11		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.0		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	620	E	ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	97		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-02 Date Collected: 04/04/11 13:00

Client ID: MW-267S-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104398
Project Number: 0131386.01
Report Date: 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-02 D
Client ID: MW-267S-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 11:08
Analyst: MM

Date Collected: 04/04/11 13:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	510		ug/l	10	--	10

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-03
Client ID: MW-267M-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 15:34
Analyst: MM

Date Collected: 04/04/11 14:30
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.2		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	15		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	17		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	210	E	ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	280	E	ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-03 Date Collected: 04/04/11 14:30

Client ID: MW-267M-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID:	L1104398-03 D	Date Collected:	04/04/11 14:30
Client ID:	MW-267M-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	04/08/11 14:38		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	240		ug/l	20	--	20
cis-1,2-Dichloroethene	320		ug/l	20	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	106		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-04
Client ID: DUP-002-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 10:36
Analyst: MM

Date Collected: 04/04/11 12:12
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.3		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	13		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	550	E	ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	85		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-04 Date Collected: 04/04/11 12:12

Client ID: DUP-002-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	109		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID:	L1104398-04 D	Date Collected:	04/04/11 12:12
Client ID:	DUP-002-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	04/11/11 11:41		
Analyst:	MM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Trichloroethene	450		ug/l	5.0	--	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-05
Client ID: MW-268D-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/08/11 15:09
Analyst: MM

Date Collected: 04/04/11 14:35
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	8.4		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	9.8		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-05 Date Collected: 04/04/11 14:35

Client ID: MW-268D-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	106		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104398
Project Number: 0131386.01
Report Date: 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-06
Client ID: TB-001-20110404-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/07/11 12:24
Analyst: MM

Date Collected: 04/04/11 00:00
Date Received: 04/04/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104398

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID: L1104398-06 Date Collected: 04/04/11 00:00

Client ID: TB-001-20110404-01 Date Received: 04/04/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	115		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/07/11 09:09
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,06 Batch: WG462100-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/07/11 09:09
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01,06 Batch: WG462100-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	111		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 08:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04 Batch: WG462392-11					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 08:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02,04 Batch: WG462392-11					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/08/11 06:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03,05 Batch: WG462392-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/08/11 06:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-03,05 Batch: WG462392-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG462392-7					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03 Batch: WG462392-7					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	108		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06 Batch: WG462100-1 WG462100-2								
Methylene chloride	90		100		70-130	11		20
1,1-Dichloroethane	84		91		70-130	8		20
Chloroform	85		96		70-130	12		20
Carbon tetrachloride	91		95		70-130	4		20
1,2-Dichloropropane	81		93		70-130	14		20
Dibromochloromethane	94		108		70-130	14		20
1,1,2-Trichloroethane	90		100		70-130	11		20
Tetrachloroethene	109		109		70-130	0		20
Chlorobenzene	88		100		70-130	13		20
1,2-Dichloroethane	81		97		70-130	18		20
1,1,1-Trichloroethane	86		93		70-130	8		20
Bromodichloromethane	85		98		70-130	14		20
trans-1,3-Dichloropropene	90		102		70-130	13		20
cis-1,3-Dichloropropene	81		92		70-130	13		20
Bromoform	98		113		70-130	14		20
1,1,2,2-Tetrachloroethane	83		95		70-130	13		20
Chloromethane	84		92		70-130	9		20
Vinyl chloride	90		97		70-130	7		20
Chloroethane	73		79		70-130	8		20
1,1-Dichloroethene	80		87		70-130	8		20
trans-1,2-Dichloroethene	88		92		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01,06 Batch: WG462100-1 WG462100-2								
Trichloroethene	87		93		70-130	7		20
1,2-Dichlorobenzene	91		102		70-130	11		20
1,3-Dichlorobenzene	88		101		70-130	14		20
1,4-Dichlorobenzene	90		103		70-130	13		20
cis-1,2-Dichloroethene	89		99		70-130	11		20
Dichlorodifluoromethane	90		101		70-130	12		20
1,2-Dibromoethane	92		101		70-130	9		20
1,3-Dichloropropane	87		99		70-130	13		20
1,1,1,2-Tetrachloroethane	95		112		70-130	16		20
o-Chlorotoluene	84		93		70-130	10		20
p-Chlorotoluene	95		105		70-130	10		20
Hexachlorobutadiene	98		108		70-130	10		20
1,2,4-Trichlorobenzene	83		96		70-130	15		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		95		70-130
Toluene-d8	103		96		70-130
4-Bromofluorobenzene	89		87		70-130
Dibromofluoromethane	102		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03,05 Batch: WG462392-1 WG462392-2								
Methylene chloride	103		100		70-130	3		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	104		100		70-130	4		20
Carbon tetrachloride	93		85		70-130	9		20
1,2-Dichloropropane	97		93		70-130	4		20
Dibromochloromethane	95		89		70-130	7		20
1,1,2-Trichloroethane	96		95		70-130	1		20
Tetrachloroethene	103		99		70-130	4		20
Chlorobenzene	92		90		70-130	2		20
1,2-Dichloroethane	105		100		70-130	5		20
1,1,1-Trichloroethane	96		90		70-130	6		20
Bromodichloromethane	99		92		70-130	7		20
trans-1,3-Dichloropropene	76		72		70-130	5		20
cis-1,3-Dichloropropene	82		77		70-130	6		20
Bromoform	96		87		70-130	10		20
1,1,2,2-Tetrachloroethane	101		99		70-130	2		20
Chloromethane	81		78		70-130	4		20
Vinyl chloride	97		88		70-130	10		20
Chloroethane	102		98		70-130	4		20
1,1-Dichloroethene	105		97		70-130	8		20
trans-1,2-Dichloroethene	102		96		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-03,05 Batch: WG462392-1 WG462392-2								
Trichloroethene	102		98		70-130	4		20
1,2-Dichlorobenzene	100		95		70-130	5		20
1,3-Dichlorobenzene	99		93		70-130	6		20
1,4-Dichlorobenzene	99		94		70-130	5		20
cis-1,2-Dichloroethene	107		102		70-130	5		20
Dichlorodifluoromethane	73		**65**	Q	70-130	12		20
1,2-Dibromoethane	96		96		70-130	0		20
1,3-Dichloropropane	98		96		70-130	2		20
1,1,1,2-Tetrachloroethane	88		81		70-130	8		20
o-Chlorotoluene	98		93		70-130	5		20
p-Chlorotoluene	99		95		70-130	4		20
Hexachlorobutadiene	91		84		70-130	8		20
1,2,4-Trichlorobenzene	90		86		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		103		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	102		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG462392-5 WG462392-6								
Methylene chloride	102		94		70-130	8		20
1,1-Dichloroethane	99		92		70-130	7		20
Chloroform	102		96		70-130	6		20
Carbon tetrachloride	98		95		70-130	3		20
1,2-Dichloropropane	92		88		70-130	4		20
Dibromochloromethane	98		94		70-130	4		20
1,1,2-Trichloroethane	95		88		70-130	8		20
Tetrachloroethene	99		93		70-130	6		20
Chlorobenzene	89		84		70-130	6		20
1,2-Dichloroethane	108		102		70-130	6		20
1,1,1-Trichloroethane	98		94		70-130	4		20
Bromodichloromethane	102		94		70-130	8		20
trans-1,3-Dichloropropene	76		71		70-130	7		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
Bromoform	102		93		70-130	9		20
1,1,2,2-Tetrachloroethane	98		92		70-130	6		20
Chloromethane	87		82		70-130	6		20
Vinyl chloride	100		97		70-130	3		20
Chloroethane	103		98		70-130	5		20
1,1-Dichloroethene	102		100		70-130	2		20
trans-1,2-Dichloroethene	101		95		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03 Batch: WG462392-5 WG462392-6								
Trichloroethene	103		94		70-130	9		20
1,2-Dichlorobenzene	96		89		70-130	8		20
1,3-Dichlorobenzene	92		87		70-130	6		20
1,4-Dichlorobenzene	93		87		70-130	7		20
cis-1,2-Dichloroethene	102		97		70-130	5		20
Dichlorodifluoromethane	79		75		70-130	5		20
1,2-Dibromoethane	98		91		70-130	7		20
1,3-Dichloropropane	98		90		70-130	9		20
1,1,1,2-Tetrachloroethane	88		84		70-130	5		20
o-Chlorotoluene	89		84		70-130	6		20
p-Chlorotoluene	91		86		70-130	6		20
Hexachlorobutadiene	91		90		70-130	1		20
1,2,4-Trichlorobenzene	87		81		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		104		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG462392-9 WG462392-10								
Methylene chloride	97		94		70-130	3		20
1,1-Dichloroethane	93		91		70-130	2		20
Chloroform	92		91		70-130	1		20
Carbon tetrachloride	99		97		70-130	2		20
1,2-Dichloropropane	91		90		70-130	1		20
Dibromochloromethane	106		106		70-130	0		20
1,1,2-Trichloroethane	96		92		70-130	4		20
Tetrachloroethene	119		111		70-130	7		20
Chlorobenzene	92		87		70-130	6		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	99		94		70-130	5		20
Bromodichloromethane	90		86		70-130	5		20
trans-1,3-Dichloropropene	97		93		70-130	4		20
cis-1,3-Dichloropropene	91		90		70-130	1		20
Bromoform	101		105		70-130	4		20
1,1,2,2-Tetrachloroethane	81		81		70-130	0		20
Chloromethane	85		85		70-130	0		20
Vinyl chloride	96		96		70-130	0		20
Chloroethane	71		70		70-130	1		20
1,1-Dichloroethene	89		87		70-130	2		20
trans-1,2-Dichloroethene	98		93		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104398

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02,04 Batch: WG462392-9 WG462392-10								
Trichloroethene	94		89		70-130	5		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	88		89		70-130	1		20
1,4-Dichlorobenzene	93		92		70-130	1		20
cis-1,2-Dichloroethene	96		95		70-130	1		20
Dichlorodifluoromethane	95		96		70-130	1		20
1,2-Dibromoethane	98		95		70-130	3		20
1,3-Dichloropropane	93		90		70-130	3		20
1,1,1,2-Tetrachloroethane	103		100		70-130	3		20
o-Chlorotoluene	82		82		70-130	0		20
p-Chlorotoluene	82		82		70-130	0		20
Hexachlorobutadiene	96		103		70-130	7		20
1,2,4-Trichlorobenzene	108		106		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		93		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	87		92		70-130
Dibromofluoromethane	105		102		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104398
Report Date: 04/11/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG462392-4 WG462392-8 QC Sample: L1104398-05 Client ID: MW-268D-20110404-01												
Methylene chloride	ND	10	12	125		11	111		70-130	9		20
1,1-Dichloroethane	ND	10	12	124		11	110		70-130	9		20
Chloroform	ND	10	13	128		12	116		70-130	8		20
Carbon tetrachloride	ND	10	13	129		12	120		70-130	8		20
1,2-Dichloropropane	ND	10	11	114		10	101		70-130	10		20
Dibromochloromethane	ND	10	12	120		12	119		70-130	0		20
1,1,2-Trichloroethane	ND	10	12	120		11	108		70-130	9		20
Tetrachloroethene	ND	10	13	128		12	116		70-130	8		20
Chlorobenzene	ND	10	11	111		10	103		70-130	10		20
1,2-Dichloroethane	ND	10	13	130		12	118		70-130	8		20
1,1,1-Trichloroethane	ND	10	12	124		12	115		70-130	0		20
Bromodichloromethane	ND	10	12	125		12	115		70-130	0		20
trans-1,3-Dichloropropene	ND	10	9.0	90		8.5	85		70-130	6		20
cis-1,3-Dichloropropene	ND	10	9.8	98		9.0	90		70-130	9		20
Bromoform	ND	10	12	122		12	125		70-130	0		20
1,1,2,2-Tetrachloroethane	ND	10	12	121		12	120		70-130	0		20
Chloromethane	ND	10	10	101		9.7	97		70-130	3		20
Vinyl chloride	ND	10	12	126		12	121		70-130	0		20
Chloroethane	ND	10	13	128		12	118		70-130	8		20
1,1-Dichloroethene	ND	10	13	**134**	Q	12	122		70-130	8		20
trans-1,2-Dichloroethene	ND	10	12	125		11	115		70-130	9		20

Matrix Spike Analysis
Batch Quality Control

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104398
Report Date: 04/11/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-05 QC Batch ID: WG462392-4 WG462392-8 QC Sample: L1104398-05 Client ID: MW-268D-20110404-01												
Trichloroethene	8.4	10	22	**133**	Q	20	113		70-130	10		20
1,2-Dichlorobenzene	ND	10	11	113		11	110		70-130	0		20
1,3-Dichlorobenzene	ND	10	11	111		11	107		70-130	0		20
1,4-Dichlorobenzene	ND	10	11	112		11	108		70-130	0		20
cis-1,2-Dichloroethene	9.8	10	22	127		21	109		70-130	5		20
Dichlorodifluoromethane	ND	10	9.1	91		9.4	94		70-130	3		20
1,2-Dibromoethane	ND	10	12	118		11	110		70-130	9		20
1,3-Dichloropropane	ND	10	12	120		11	109		70-130	9		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		10	105		70-130	10		20
o-Chlorotoluene	ND	10	11	111		10	103		70-130	10		20
p-Chlorotoluene	ND	10	11	112		10	105		70-130	10		20
Hexachlorobutadiene	ND	10	10	104		11	106		70-130	10		20
1,2,4-Trichlorobenzene	ND	10	9.5	95		9.4	94		70-130	1		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		106		70-130
4-Bromofluorobenzene	99		96		70-130
Dibromofluoromethane	106		104		70-130
Toluene-d8	98		97		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104398
Report Date: 04/11/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104398-01A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-01B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-02A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-02B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-03A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-03B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-04A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-04B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05B	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05C	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05D	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05E	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-05F	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)
L1104398-06A	Vial HCl preserved	A	N/A	3.0	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104398
Project Number:	0131386.01	**Report Date:**	04/11/11

GLOSSARY

Acronyms

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104398
Project Number:	0131386.01	**Report Date:**	04/11/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104398
Report Date: 04/11/11

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 1

E

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/4/11

ALPHA Job #: L1104398

Client Information

Client: ERM

Address: 399 Boylston St. 6th Floor Boston, MA

Phone: (617) 646-7800

Fax: (617) 267-6447

Email: jason.flatley@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 0131386.01

Project Manager: Jason Flatley

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/11/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL

☐ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: CVOCs (8021 GW 8260) 1,4 Dioxane (8270 SIM)

SAMPLE HANDLING

Filtration
☐ Done ☐ Not needed ☐ Lab to do

Preservation
☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021 GW 8260)	1,4 Dioxane (8270 SIM)	Sample Specific Comments	TOTAL # BOTTLES
04398-1	MW-266Ma-20110404-01	4/4/11	1320	GW	EW	2	2		4
2	MW-267S-20110404-01		1300		JPD	2	2		4
3	MW-267M-20110404-01		1430		JPD	2	2		4
4	DUP-002-20110404-01		1202		JPD	2	2		4
5	MW-268D-20110404-01		1435		EW	2			2
6	TB-001-20110404-01	3/28/11	0500	—	KR	1			1
5MS	MW-268D-20110404-01-MS	4/4/11	1435	GW	EW	2			2
5MSD	MW-268D-20110404-01-MSD	4/4/11	1435	GW	EW	2			2

Container Type	V	A
Preservative	B	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/4/11 1545		4/4/11 1545
	4/4/11 1630		4/4/11 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1104399
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0131386.01
Report Date:	04/08/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104399
Report Date: 04/08/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104399-01	MW-266MA-20110404-01	WAYLAND, MA	04/04/11 13:20
L1104399-02	MW-267S-20110404-01	WAYLAND, MA	04/04/11 13:00
L1104399-03	MW-267M-20110404-01	WAYLAND, MA	04/04/11 14:30
L1104399-04	DUP-002-20110404-01	WAYLAND, MA	04/04/11 12:12

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104399

Project Number: 0131386.01 **Report Date:** 04/08/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104399
Report Date: 04/08/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

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

Authorized Signature: Peter Henriksen

Title: Technical Director/Representative Date: 04/08/11

ORGANICS

SEMIVOLATILES

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104399

Project Number: 0131386.01 **Report Date:** 04/08/11

SAMPLE RESULTS

Lab ID:	L1104399-01	Date Collected:	04/04/11 13:20
Client ID:	MW-266MA-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/05/11 13:00
Analytical Date:	04/06/11 12:40		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	1180		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104399

Project Number: 0131386.01 **Report Date:** 04/08/11

SAMPLE RESULTS

Lab ID:	L1104399-02	Date Collected:	04/04/11 13:00
Client ID:	MW-267S-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/05/11 13:00
Analytical Date:	04/06/11 13:24		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	11500		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104399

Project Number: 0131386.01 **Report Date:** 04/08/11

SAMPLE RESULTS

Lab ID:	L1104399-03	Date Collected:	04/04/11 14:30
Client ID:	MW-267M-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/05/11 13:00
Analytical Date:	04/06/11 14:09		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	2810		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104399

Project Number: 0131386.01 **Report Date:** 04/08/11

SAMPLE RESULTS

Lab ID:	L1104399-04	Date Collected:	04/04/11 12:12
Client ID:	DUP-002-20110404-01	Date Received:	04/04/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/05/11 13:00
Analytical Date:	04/06/11 14:53		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	11800		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104399
Report Date: 04/08/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 04/06/11 07:33
Analyst: JD

Extraction Method: EPA 3510C
Extraction Date: 04/05/11 13:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270C-SIM - Mansfield Lab for sample(s): 01-04 Batch: WG461572-1					
1,4-Dioxane	ND		ng/l	500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104399

Report Date: 04/08/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270C-SIM - Mansfield Lab	Associated sample(s): 01-04		Batch: WG461572-2		WG461572-3			
1,4-Dioxane	110		112		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	27		34		15-110

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104399
Report Date: 04/08/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104399-01A	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-01B	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-02A	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-02B	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-03A	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-03B	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-04A	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104399-04B	Amber 1000ml unpreserved	A	7	3.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104399
Project Number:	0131386.01	**Report Date:**	04/08/11

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104399
Project Number:	0131386.01	**Report Date:**	04/08/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104399
Project Number:	0131386.01	**Report Date:**	04/08/11

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Certificate/Approval Program Summary

Last revised March 23, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

Solid & Chemical Materials (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Serial_No:04081112:20

CHAIN OF CUSTODY

PAGE 1 OF 1

E

ALPHA TECHNICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/4/11

ALPHA Job #: L1104349

Client Information

Client: ERM

Address: 399 Boylston St. 4th Floor Boston, MA

Phone: (617) 646-7800

Fax: (617) 267-6447

Email: jason.flatley@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 0131386.01

Project Manager: Jason Flatley

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/18/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL

☐ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021 GW 8260)	1,4 Dioxane (8270 SIM)	TOTAL # BOTTLES
04349-1	MW-266Ma-20110404-01	4/4/11	1320	GW	EW	2	2	4
-2	MW-2675-20110404-01		1300		JPD	2	2	4
-3	MW-267M-20110404-01		1430		JPD	2	2	4
-4	DUP-002-20110404-01		1212		JPD	2	2	4
	MW-268D-20110404-01		1435		EW	2		2
	TB-001-20110404-01	3/28/11	0500	—	KR	1		1
	MW-268D-20110404-01-MS	4/4/11	1435	GW	EW	2		2
	MW-268D-20110404-01-MSD	4/4/11	1435		EW	2		2

SAMPLE HANDLING

Filtration

☐ Done ☐ Not needed ☐ Lab to do

Preservation ☐ Lab to do (Please specify below)

Sample Specific Comments

Container Type	V	A
Preservative	B	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/4/11 1545		4/4/11 1545
	4/4/11 1630		4/4/11 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

Serial_No:04081112:20

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/4/11 | ALPHA Job #:

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

E

Client Information

Client: ERM
Address: 399 Boylston St. 6th Floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flatley@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flatley
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/18/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☐ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: EHOCs (8260) 1,4 Dioxane (8270)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☑ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials			Sample Specific Comments	TOTAL # BOTTLES
04309 1	MW-266Ma-20110404-01	4/4/11	1320	GW	EW	2	2		4
2	MW-2675-20110404-01		1300		JPD	2	2		4
3	MW-267M-20110404-01		1430		JPD	2	2		4
4	DUP-002-20110404-01		1202		JPD	2	2		4
	MW-268D-20110404-01		1435		EW	2			2
	TB-001-20110404-01	3/28/11	0500	—	KR	1			1
	MW-268D-20110404-01-MS	4/4/11	1435	GW	EW	2			2
	MW-268D-20110404-01-MSD	4/4/11	1435		EW	2			2

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

	V	A
Container Type		
Preservative	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
	4/4/11 1545		4/4/11 1545
	4/4/11 1630		4/4/11 1620
	4/4/11		4/5/11 910
	4/5/11 1005		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's terms and conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1104479
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0131386.01
Report Date:	04/11/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104479
Report Date: 04/11/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104479-01	MW-202M-20110405-01	WAYLAND, MA	04/05/11 10:45
L1104479-02	MW-46M-20110405-01	WAYLAND, MA	04/05/11 09:35

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104479
Project Number:	0131386.01	**Report Date:**	04/11/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104479
Report Date: 04/11/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

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

Authorized Signature: Peter Henriksen

Title: Technical Director/Representative Date: 04/11/11

ORGANICS

SEMIVOLATILES

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104479

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID:	L1104479-01	Date Collected:	04/05/11 10:45
Client ID:	MW-202M-20110405-01	Date Received:	04/05/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/06/11 14:30
Analytical Date:	04/07/11 12:14		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	608		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: RAYTHEON WAYLAND
Lab Number: L1104479
Project Number: 0131386.01
Report Date: 04/11/11

SAMPLE RESULTS

Lab ID:	L1104479-02	Date Collected:	04/05/11 09:35
Client ID:	MW-46M-20110405-01	Date Received:	04/05/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/06/11 14:30
Analytical Date:	04/07/11 12:58		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	1120		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104479
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 04/07/11 10:02
Analyst: JD

Extraction Method: EPA 3510C
Extraction Date: 04/06/11 14:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270C-SIM - Mansfield Lab for sample(s): 01-02 Batch: WG461788-1					
1,4-Dioxane	ND		ng/l	500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104479

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270C-SIM - Mansfield Lab	Associated sample(s): 01-02		Batch: WG461788-2		WG461788-3			
1,4-Dioxane	111		112		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	27		29		15-110

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104479
Report Date: 04/11/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104479-01A	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104479-01B	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104479-02A	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104479-02B	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104479
Project Number:	0131386.01	**Report Date:**	04/11/11

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104479
Project Number:	0131386.01	**Report Date:**	04/11/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104479
Project Number:	0131386.01	**Report Date:**	04/11/11

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Certificate/Approval Program Summary

Last revised March 23, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

Solid & Chemical Materials (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

Serial_No:04111109:47

CHAIN OF CUSTODY

PAGE 1 OF 2

E

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/11

ALPHA Job #: L1104479

Client Information

Client: ERM

Address: 399 Boylston Street 6th floor Boston, MA

Phone: (617) 646-7800

Fax: (617) 267-6447

Email: jason.flattery@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 0131386.01

Project Manager: Jason Flattery

ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/19/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL

☑ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: CVOCs (8021C x 8260B); 1,4-Dioxane (8270SIM)

SAMPLE HANDLING
Filtration ____
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021C x 8260B)	1,4-Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
04479-1	MW-202M-20110405-01	4/5/11	1045	GW	EW	2	2	②	4
	MW-40-20110405-01	|	0950	|	SMC	2			2
	MW-45B-20110405-01	|	1345	|	SMC	2			2
2	MW-46M-20110405-01	|	0935	|	SMC	2	2		4
	MW-47M-20110405-01	|	1525	|	SMC	2			2
	MW-46M-20110405-01-MS	|	0935	|	SMC	2			2
	MW-46M-20110405-01-MSD	|	0935	|	SMC	2			2
	MW-~~115~~-20110405-01	|	1235	|	SMC	2			2
	DUP-004-20110405-01	|	1111	|	SMC	2			2
	TB-002-20110405-01	3/28/11	0654	–	KR	1			1
					Container Type	V	A		
					Preservative	B	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1545 4/5/11	[signature]	4/5/11 1526
[signature]	4/5/11 163[illegible]	[signature]	4/5/11 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

CHAIN OF CUSTODY

PAGE 1 OF 2

E

Date Rec'd in Lab: 4/5/11 | ALPHA Job #: [illegible]

Client Information

Client: ERM
Address: 399 Boylston Street, 6th floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flattery@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/19/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☑ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: VOCs (8260 ~~LOW~~) | 1,4-Dioxane (8270SIM)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs (8260)	1,4-Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
[illegible]	MW-202M-20110405-01	4/5/11	1045	GW	EW	2	2		4
	MW-40-20110405-01		0950		SMC	2			2
	MW-45B-20110405-01		1345		SMC	2			2
	MW-46M-20110405-01		0935		SMC	2	2		4
	MW-47M-20110405-01		1525		SMC	2			2
	MW-46M-20110405-01-MS		0935		SMC	2			2
	MW-46M-20110405-01-MSD		0935		SMC	2			2
	MW-~~115~~-20110405-01		1235		SMC	2			2
	DUP-004-20110405-01		1111		SMC	2			2
	TB-002-20110405-01	3/28/11	0654	–	KR				1
					Container Type	V	A		
					Preservative	B	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1545 4/5/11	[signature]	4/5/11 1546
[signature]	4/5/11 1630	[signature]	4/5/11 1630
	4/5/11	[signature]	4/6/11 705
[signature]	4-6-11 750	[signature]	4/6/11 0750

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1104563
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON-WAYLAND
Project Number:	0131386.01
Report Date:	04/11/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON-WAYLAND
Project Number: 0131386.01

Lab Number: L1104563
Report Date: 04/11/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104563-01	MW-403-20110406-01	WAYLAND, MA	04/06/11 13:40
L1104563-02	MW-269MA-20110406-01	WAYLAND, MA	04/06/11 14:35

Project Name: RAYTHEON-WAYLAND **Lab Number:** L1104563

Project Number: 0131386.01 **Report Date:** 04/11/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON-WAYLAND
Project Number: 0131386.01

Lab Number: L1104563
Report Date: 04/11/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

1,4-Dioxane by 8270-SIM

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

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

Authorized Signature: Cynthia McQueen

Title: Technical Director/Representative Date: 04/11/11

ORGANICS

SEMIVOLATILES

Project Name: RAYTHEON-WAYLAND
Lab Number: L1104563
Project Number: 0131386.01
Report Date: 04/11/11

SAMPLE RESULTS

Lab ID:	L1104563-01	Date Collected:	04/06/11 13:40
Client ID:	MW-403-20110406-01	Date Received:	04/06/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/07/11 10:04
Analytical Date:	04/08/11 15:24		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	903		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: RAYTHEON-WAYLAND **Lab Number:** L1104563

Project Number: 0131386.01 **Report Date:** 04/11/11

SAMPLE RESULTS

Lab ID:	L1104563-02	Date Collected:	04/06/11 14:35
Client ID:	MW-269MA-20110406-01	Date Received:	04/06/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270C-SIM	Extraction Date:	04/07/11 10:04
Analytical Date:	04/08/11 16:08		
Analyst:	JD		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270C-SIM - Mansfield Lab						
1,4-Dioxane	2450		ng/l	500	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RAYTHEON-WAYLAND
Project Number: 0131386.01

Lab Number: L1104563
Report Date: 04/11/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 04/08/11 13:12
Analyst: JD

Extraction Method: EPA 3510C
Extraction Date: 04/07/11 10:04

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270C-SIM - Mansfield Lab for sample(s): 01-02 Batch: WG461947-1					
1,4-Dioxane	ND		ng/l	500	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	30		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0131386.01

Lab Number: L1104563

Report Date: 04/11/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270C-SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG461947-2 WG461947-3								
1,4-Dioxane	110		111		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	31		32		15-110

Project Name: RAYTHEON-WAYLAND
Project Number: 0131386.01

Lab Number: L1104563
Report Date: 04/11/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104563-01A	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104563-01B	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104563-02A	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1104563-02B	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON-WAYLAND	**Lab Number:**	L1104563
Project Number:	0131386.01	**Report Date:**	04/11/11

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON-WAYLAND	**Lab Number:**	L1104563
Project Number:	0131386.01	**Report Date:**	04/11/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Certificate/Approval Program Summary

Last revised March 23, 2011 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570B, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA, 245.1, 245.7, 1631E, 180.1, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B. Organic Parameters: EPA 8081, 8082, 8260B, 8270C.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 3060A, 6020A, 7470A, 7471A, 9040B, 9045C, 7196A. Organic Parameters: SW-846 3540C, 3580, 3630C, 3640A, 3660B, 3665A, 5035, 8260B, 8270C, 8015D, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, SM2320B, EPA 200.8, SM2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 7470A, 9040B, 6020, 9010B, 9014 Organic Parameters: SW-846 3510C, 3580A, 5030B, 5035L, 5035H, 3630C, 3640C, 3660B, 3665A, 8015B 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9040B, 9045C, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 5030B, 5035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 9014, 9040B, 120.1, SM2510B, 4500CN-E, 4500H-B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8082, 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020, 7196A, 3060A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 1312, 3050B, 3580, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 2510B, EPA 120.1, 180.1, 1631E, 245.7.)

Solid & Chemical Materials (Inorganic Parameters: EPA 9040, 9060, 6020, 7470, 7471, 7474. Organic Parameters: EPA 8081, 8082, 8015 Mod, 8270, 8260.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 5030B, 8260B, 8270C, 8270C-ALK-PAH, 8082, 8081A, 8015D-SHC.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 5035A, 8260B, 8270C, 8270-ALK-PAH, 8082, 8081A, 8015D-SHC, 8015-DRO.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 2-Methylnaphthalene, 1-Methylnaphthalene.

L1104563

CHAIN OF CUSTODY

PAGE 1 OF 1

E

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/6/11

ALPHA Job #: ~~L1104558~~

Client Information

Client: ERM
Address: 399 Boylston St. 6th floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flattery@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/20/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☑ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Samples preserved w/ascorbic have shortened hold time

ANALYSIS: CVOCs (8021C x 8260B) | CVOCs (8021C x 8260B) | 1,4 Dioxane (8270SIM)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021C x 8260B)	CVOCs (8021C x 8260B)	1,4 Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
~~4558, 1~~	MW-118-20110405-01	4/5/11	1615	GW	EW	2			Shortened holding time	2
~~2~~	MW-208M-20110406-01	4/6/11	0855		EW	2			Shortened holding time	2
~~3~~	MW-201M-20110406-01		1145		EW		2			2
4563.1 ~~4~~	MW-403-20110406-01		1340		EW		2	2		4
~~5~~	MW-105-20110406-01		1400		LJM		2			2
~~6~~ 7	TB-003-20110406-01	3/28/11	0543	—	KR		1			1
~~7~~ 8	MW-204M-20110406-01	4/6/11	1025	GW	EW		2			2
~~8~~ 9	DUP-005-20110406-01	4/6/11	1414	GW	EW		2			2
2 ~~9~~ 10	MW-269Ma-20110406-01	4/6/11	~~1400~~ 1435	GW	SMC		2	2		4

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Container Type	V	V	A
Preservative	I	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/6/11 1530	[signature]	4/6/11 1530
[signature]	4/6/11 1610	[signature]	4/6/11 1610

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

Serial_No:04111113:01 L1104563

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

E

Date Rec'd in Lab: 4/6/11

ALPHA Job #: L1104550

Client Information

Client: ERM
Address: 399 Boylston St. 6th floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flattery@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/20/11 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☒ Add'l Deliverables

Billing Information

☒ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

Samples preserved w/ascorbic have shortened hold time

ANALYSIS: CVOCs (8021C + 524.2) | CVOCs (8021C 8260B) | 1,4 Dioxane (8270SIM)

SAMPLE HANDLING
Filtration ________
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021C + 524.2)	CVOCs (8021C 8260B)	1,4 Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
1	MW-118-20110405-01	4/5/11	1615	GW	EW	2			Shortened holding time	2
2	MW-208M-20110406-01	4/6/11	0855	GW	EW	2			shortened holding time	2
3	MW-201M-20110406-01	4/6/11	1145	GW	EW		2			2
4	MW-403-20110406-01	4/6/11	1340	GW	EW		2	2		4
5	MW-105-20110406-01	4/6/11	1400	GW	LJM		2			2
6	TB-003-20110406-01	3/28/11	0543	—	KR		1			1
7	MW-204M-20110406-01	4/6/11	1025	GW	EW		2			2
8	DUP-005-20110406-01	4/6/11	1414	GW	EW		2			2
9	MW-269Ma-20110406-01	4/6/11	~~1400~~ 1435	GW	SMC		2	2		4

PLEASE ANSWER QUESTIONS ABOVE!

Container Type	V	V	A
Preservative	I	B	A

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/6/11 1530	[signature]	4/6/11 1530
[signature]	4/6/11 1610	[signature]	4/6/11 1610
[signature]	4/6/11 2200	[signature]	4-7-11 705
Pat [signature]	4-7-11 815	[signature]	4/7/11 0815

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

ANALYTICAL REPORT

Lab Number:	L1104476
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0131386.01
Report Date:	04/12/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104476-01	MW-202M-20110405-01	WAYLAND, MA	04/05/11 10:45
L1104476-02	MW-40-20110405-01	WAYLAND, MA	04/05/11 09:50
L1104476-03	MW-45B-20110405-01	WAYLAND, MA	04/05/11 13:45
L1104476-04	MW-46M-20110405-01	WAYLAND, MA	04/05/11 09:35
L1104476-05	MW-47M-20110405-01	WAYLAND, MA	04/05/11 15:25
L1104476-06	MW-115-20110405-01	WAYLAND, MA	04/05/11 12:35
L1104476-07	DUP-004-20110405-01	WAYLAND, MA	04/05/11 11:11
L1104476-08	TB-002-20110405-01	WAYLAND, MA	04/05/11 00:00
L1104476-09	MW-203D-20110405-01	WAYLAND, MA	04/05/11 13:10
L1104476-10	MW-205M-20110405-01	WAYLAND, MA	04/05/11 10:45
L1104476-11	MW-206M-20110405-01	WAYLAND, MA	04/05/11 12:45
L1104476-12	MW-206D-20110405-01	WAYLAND, MA	04/05/11 14:35
L1104476-13	MW-207M-20110405-01	WAYLAND, MA	04/05/11 15:40

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

MCP Related Narratives

Report Submission

The analysis of 1,4-Dioxane by method 8270-SIM isotope dilution was performed at our Mansfield facility. The results have been provided under separate cover.

Volatile Organics

L1104476-10 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

L1104476-10: One or more of the target analytes did not achieve the requested CAM reporting limits.

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104476
Project Number:	0131386.01	**Report Date:**	04/12/11

Case Narrative (continued)

In reference to question H:

The WG462318-2 LCSD recovery, associated with L1104476-01, -02, -03 and -08, is below the individual acceptance criteria for trans-1,3-Dichloropropene (68%), but within the overall method allowances. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

The WG462491-2 LCSD recovery, associated with L1104476-04, is below the individual acceptance criteria for trans-1,3-Dichloropropene (68%), but within the overall method allowances. The results of the associated sample are reported; however, all results are considered to have a potentially low bias for this compound.

The continuing calibration standard, associated with L1104476-05, -06, -07 and -10 through -13, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

In reference to question I:

All samples were analyzed for a subset of MCP compounds per the Chain of Custody.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 04/12/11

ORGANICS

VOLATILES

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-01
Client ID: MW-202M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/09/11 19:11
Analyst: CF

Date Collected: 04/05/11 10:45
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	22		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	1.5		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	79		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-01 Date Collected: 04/05/11 10:45

Client ID: MW-202M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	109		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104476
Project Number: 0131386.01
Report Date: 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-02
Client ID: MW-40-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/09/11 19:42
Analyst: CF

Date Collected: 04/05/11 09:50
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	1.4		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	6.5		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-02 Date Collected: 04/05/11 09:50

Client ID: MW-40-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID:	L1104476-03	Date Collected:	04/05/11 13:45
Client ID:	MW-45B-20110405-01	Date Received:	04/05/11
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	97,8260B		
Analytical Date:	04/09/11 20:14		
Analyst:	CF		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	2.0		ug/l	1.0	--	1
Trichloroethene	100		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	18		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-03 Date Collected: 04/05/11 13:45

Client ID: MW-45B-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	107		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-04
Client ID: MW-46M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/09/11 20:46
Analyst: CF

Date Collected: 04/05/11 09:35
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	1.0		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-04 Date Collected: 04/05/11 09:35

Client ID: MW-46M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104476
Project Number: 0131386.01
Report Date: 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-05
Client ID: MW-47M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:31
Analyst: MM

Date Collected: 04/05/11 15:25
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	2.3		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	35		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	5.4		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-05 Date Collected: 04/05/11 15:25

Client ID: MW-47M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	106		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104476
Project Number: 0131386.01
Report Date: 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-06
Client ID: MW-115-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 10:03
Analyst: MM

Date Collected: 04/05/11 12:35
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	17		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	65		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-06 Date Collected: 04/05/11 12:35

Client ID: MW-115-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	106		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104476
Project Number: 0131386.01
Report Date: 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-07
Client ID: DUP-004-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 08:45
Analyst: MM

Date Collected: 04/05/11 11:11
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	1.8		ug/l	1.0	--	1
Trichloroethene	96		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	17		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-07 Date Collected: 04/05/11 11:11

Client ID: DUP-004-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104476
Project Number: 0131386.01
Report Date: 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-08
Client ID: TB-002-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/09/11 11:17
Analyst: CF

Date Collected: 04/05/11 00:00
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-08 Date Collected: 04/05/11 00:00

Client ID: TB-002-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-09
Client ID: MW-203D-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 15:02
Analyst: CF

Date Collected: 04/05/11 13:10
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	2.5		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	94		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	7.7		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-09 Date Collected: 04/05/11 13:10

Client ID: MW-203D-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-10 D
Client ID: MW-205M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 12:13
Analyst: MM

Date Collected: 04/05/11 10:45
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	2.5
1,1-Dichloroethane	ND		ug/l	2.5	--	2.5
Chloroform	ND		ug/l	2.5	--	2.5
Carbon tetrachloride	ND		ug/l	2.5	--	2.5
1,2-Dichloropropane	ND		ug/l	2.5	--	2.5
Dibromochloromethane	ND		ug/l	2.5	--	2.5
1,1,2-Trichloroethane	ND		ug/l	2.5	--	2.5
Tetrachloroethene	ND		ug/l	2.5	--	2.5
Chlorobenzene	ND		ug/l	2.5	--	2.5
1,2-Dichloroethane	ND		ug/l	2.5	--	2.5
1,1,1-Trichloroethane	36		ug/l	2.5	--	2.5
Bromodichloromethane	ND		ug/l	2.5	--	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	--	2.5
Bromoform	ND		ug/l	5.0	--	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
Chloromethane	ND		ug/l	5.0	--	2.5
Vinyl chloride	ND		ug/l	2.5	--	2.5
Chloroethane	ND		ug/l	5.0	--	2.5
1,1-Dichloroethene	ND		ug/l	2.5	--	2.5
trans-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Trichloroethene	140		ug/l	2.5	--	2.5
1,2-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5	--	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5	--	2.5
cis-1,2-Dichloroethene	ND		ug/l	2.5	--	2.5
Dichlorodifluoromethane	ND		ug/l	5.0	--	2.5
1,2-Dibromoethane	ND		ug/l	5.0	--	2.5
1,3-Dichloropropane	ND		ug/l	5.0	--	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	--	2.5
o-Chlorotoluene	ND		ug/l	5.0	--	2.5

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-10 D Date Collected: 04/05/11 10:45

Client ID: MW-205M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	5.0	--	2.5
Hexachlorobutadiene	ND		ug/l	1.5	--	2.5
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	106		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-11
Client ID: MW-206M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 09:17
Analyst: MM

Date Collected: 04/05/11 12:45
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.9		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	2.0		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	20		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-11 Date Collected: 04/05/11 12:45

Client ID: MW-206M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	107		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-12
Client ID: MW-206D-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 12:46
Analyst: MM

Date Collected: 04/05/11 14:35
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	33		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	6.0		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-12 Date Collected: 04/05/11 14:35

Client ID: MW-206D-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-13
Client ID: MW-207M-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 13:18
Analyst: MM

Date Collected: 04/05/11 15:40
Date Received: 04/05/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	11		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.5		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104476

Project Number: 0131386.01 **Report Date:** 04/12/11

SAMPLE RESULTS

Lab ID: L1104476-13 Date Collected: 04/05/11 15:40

Client ID: MW-207M-20110405-01 Date Received: 04/05/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	102		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/09/11 10:46
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,08 Batch: WG462318-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/09/11 10:46
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-03,08 Batch: WG462318-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/09/11 10:46
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG462491-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/09/11 10:46
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 04 Batch: WG462491-3					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 09 Batch: WG462491-6					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: CF

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 09 Batch: WG462491-6					
p-Chlorotoluene	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 08:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06,10,12-13 Batch: WG462495-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 08:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06,10,12-13 Batch: WG462495-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 08:59
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 05-06,10,12-13 Batch: WG462495-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07,11 Batch: WG462540-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07,11 Batch: WG462540-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104476
Report Date: 04/12/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 07,11 Batch: WG462540-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,08 Batch: WG462318-1 WG462318-2								
Methylene chloride	103		104		70-130	1		20
1,1-Dichloroethane	98		96		70-130	2		20
Chloroform	103		99		70-130	4		20
Carbon tetrachloride	90		77		70-130	16		20
1,2-Dichloropropane	96		93		70-130	3		20
Dibromochloromethane	95		84		70-130	12		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	102		102		70-130	0		20
Chlorobenzene	94		92		70-130	2		20
1,2-Dichloroethane	106		103		70-130	3		20
1,1,1-Trichloroethane	94		85		70-130	10		20
Bromodichloromethane	100		89		70-130	12		20
trans-1,3-Dichloropropene	74		**68**	Q	70-130	8		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
Bromoform	94		79		70-130	17		20
1,1,2,2-Tetrachloroethane	101		96		70-130	5		20
Chloromethane	85		86		70-130	1		20
Vinyl chloride	98		98		70-130	0		20
Chloroethane	104		103		70-130	1		20
1,1-Dichloroethene	103		102		70-130	1		20
trans-1,2-Dichloroethene	100		99		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-03,08 Batch: WG462318-1 WG462318-2								
Trichloroethene	102		100		70-130	2		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	99		96		70-130	3		20
1,4-Dichlorobenzene	100		97		70-130	3		20
cis-1,2-Dichloroethene	105		104		70-130	1		20
Dichlorodifluoromethane	74		75		70-130	1		20
1,2-Dibromoethane	102		97		70-130	5		20
1,3-Dichloropropane	100		101		70-130	1		20
1,1,1,2-Tetrachloroethane	86		77		70-130	11		20
o-Chlorotoluene	96		94		70-130	2		20
p-Chlorotoluene	97		95		70-130	2		20
Hexachlorobutadiene	91		93		70-130	2		20
1,2,4-Trichlorobenzene	90		89		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		103		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	102		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG462491-1 WG462491-2								
Methylene chloride	103		104		70-130	1		20
1,1-Dichloroethane	98		96		70-130	2		20
Chloroform	103		99		70-130	4		20
Carbon tetrachloride	90		77		70-130	16		20
1,2-Dichloropropane	96		93		70-130	3		20
Dibromochloromethane	95		84		70-130	12		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	102		102		70-130	0		20
Chlorobenzene	94		92		70-130	2		20
1,2-Dichloroethane	106		103		70-130	3		20
1,1,1-Trichloroethane	94		85		70-130	10		20
Bromodichloromethane	100		89		70-130	12		20
trans-1,3-Dichloropropene	74		**68**	Q	70-130	8		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
Bromoform	94		79		70-130	17		20
1,1,2,2-Tetrachloroethane	101		96		70-130	5		20
Chloromethane	85		86		70-130	1		20
Vinyl chloride	98		98		70-130	0		20
Chloroethane	104		103		70-130	1		20
1,1-Dichloroethene	103		102		70-130	1		20
trans-1,2-Dichloroethene	100		99		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04 Batch: WG462491-1 WG462491-2								
Trichloroethene	102		100		70-130	2		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	99		96		70-130	3		20
1,4-Dichlorobenzene	100		97		70-130	3		20
cis-1,2-Dichloroethene	105		104		70-130	1		20
Dichlorodifluoromethane	74		75		70-130	1		20
1,2-Dibromoethane	102		97		70-130	5		20
1,3-Dichloropropane	100		101		70-130	1		20
1,1,1,2-Tetrachloroethane	86		77		70-130	11		20
o-Chlorotoluene	96		94		70-130	2		20
p-Chlorotoluene	97		95		70-130	2		20
Hexachlorobutadiene	91		93		70-130	2		20
1,2,4-Trichlorobenzene	90		89		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103		103		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	102		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG462491-4 WG462491-5								
Methylene chloride	102		94		70-130	9		20
1,1-Dichloroethane	99		92		70-130	6		20
Chloroform	102		96		70-130	7		20
Carbon tetrachloride	98		95		70-130	5		20
1,2-Dichloropropane	92		88		70-130	9		20
Dibromochloromethane	98		94		70-130	1		20
1,1,2-Trichloroethane	95		88		70-130	13		20
Tetrachloroethene	99		93		70-130	9		20
Chlorobenzene	89		84		70-130	11		20
1,2-Dichloroethane	108		102		70-130	4		20
1,1,1-Trichloroethane	98		94		70-130	0		20
Bromodichloromethane	102		94		70-130	6		20
trans-1,3-Dichloropropene	76		71		70-130	4		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
Bromoform	102		93		70-130	1		20
1,1,2,2-Tetrachloroethane	98		92		70-130	9		20
Chloromethane	87		82		70-130	4		20
Vinyl chloride	100		97		70-130	1		20
Chloroethane	103		98		70-130	6		20
1,1-Dichloroethene	102		100		70-130	3		20
trans-1,2-Dichloroethene	101		95		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 09 Batch: WG462491-4 WG462491-5								
Trichloroethene	103		94		70-130	8		20
1,2-Dichlorobenzene	96		89		70-130	12		20
1,3-Dichlorobenzene	92		87		70-130	13		20
1,4-Dichlorobenzene	93		87		70-130	14		20
cis-1,2-Dichloroethene	102		97		70-130	8		20
Dichlorodifluoromethane	79		75		70-130	1		20
1,2-Dibromoethane	98		91		70-130	11		20
1,3-Dichloropropane	98		90		70-130	11		20
1,1,1,2-Tetrachloroethane	88		84		70-130	2		20
o-Chlorotoluene	89		84		70-130	13		20
p-Chlorotoluene	91		86		70-130	12		20
Hexachlorobutadiene	91		90		70-130	1		20
1,2,4-Trichlorobenzene	87		81		70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		104		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06,10,12-13 Batch: WG462495-1 WG462495-2								
Methylene chloride	97		94		70-130	3		20
1,1-Dichloroethane	93		91		70-130	2		20
Chloroform	92		91		70-130	1		20
Carbon tetrachloride	99		97		70-130	2		20
1,2-Dichloropropane	91		90		70-130	1		20
Dibromochloromethane	106		106		70-130	0		20
1,1,2-Trichloroethane	96		92		70-130	4		20
Tetrachloroethene	119		111		70-130	7		20
Chlorobenzene	92		87		70-130	6		20
Trichlorofluoromethane	84		83		70-130	1		20
1,2-Dichloroethane	94		92		70-130	2		20
1,1,1-Trichloroethane	99		94		70-130	5		20
Bromodichloromethane	90		86		70-130	5		20
trans-1,3-Dichloropropene	97		93		70-130	4		20
cis-1,3-Dichloropropene	91		90		70-130	1		20
1,1-Dichloropropene	95		91		70-130	4		20
Bromoform	101		105		70-130	4		20
1,1,2,2-Tetrachloroethane	81		81		70-130	0		20
Benzene	96		95		70-130	1		20
Toluene	96		91		70-130	5		20
Ethylbenzene	94		89		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06,10,12-13 Batch: WG462495-1 WG462495-2								
Chloromethane	85		85		70-130	0		20
Bromomethane	**57**	Q	**58**	Q	70-130	2		20
Vinyl chloride	96		96		70-130	0		20
Chloroethane	71		70		70-130	1		20
1,1-Dichloroethene	89		87		70-130	2		20
trans-1,2-Dichloroethene	98		93		70-130	5		20
Trichloroethene	94		89		70-130	5		20
1,2-Dichlorobenzene	90		90		70-130	0		20
1,3-Dichlorobenzene	88		89		70-130	1		20
1,4-Dichlorobenzene	93		92		70-130	1		20
Methyl tert butyl ether	87		83		70-130	5		20
p/m-Xylene	95		93		70-130	2		20
o-Xylene	92		89		70-130	3		20
cis-1,2-Dichloroethene	96		95		70-130	1		20
Dibromomethane	100		96		70-130	4		20
1,2,3-Trichloropropane	86		86		70-130	0		20
Styrene	90		89		70-130	1		20
Dichlorodifluoromethane	95		96		70-130	1		20
Acetone	81		72		70-130	12		20
Carbon disulfide	**63**	Q	**62**	Q	70-130	2		20
2-Butanone	84		82		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06,10,12-13 Batch: WG462495-1 WG462495-2								
4-Methyl-2-pentanone	81		77		70-130	5		20
2-Hexanone	81		81		70-130	0		20
Bromochloromethane	116		112		70-130	4		20
Tetrahydrofuran	81		76		70-130	6		20
2,2-Dichloropropane	98		93		70-130	5		20
1,2-Dibromoethane	98		95		70-130	3		20
1,3-Dichloropropane	93		90		70-130	3		20
1,1,1,2-Tetrachloroethane	103		100		70-130	3		20
Bromobenzene	96		99		70-130	3		20
n-Butylbenzene	76		76		70-130	0		20
sec-Butylbenzene	77		78		70-130	1		20
tert-Butylbenzene	82		83		70-130	1		20
o-Chlorotoluene	82		82		70-130	0		20
p-Chlorotoluene	82		82		70-130	0		20
1,2-Dibromo-3-chloropropane	87		92		70-130	6		20
Hexachlorobutadiene	96		103		70-130	7		20
Isopropylbenzene	89		85		70-130	5		20
p-Isopropyltoluene	84		84		70-130	0		20
Naphthalene	103		104		70-130	1		20
n-Propylbenzene	80		80		70-130	0		20
1,2,3-Trichlorobenzene	103		105		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 05-06,10,12-13 Batch: WG462495-1 WG462495-2								
1,2,4-Trichlorobenzene	108		106		70-130	2		20
1,3,5-Trimethylbenzene	84		81		70-130	4		20
1,2,4-Trimethylbenzene	84		86		70-130	2		20
Ethyl ether	86		87		70-130	1		20
Isopropyl Ether	90		87		70-130	3		20
Ethyl-Tert-Butyl-Ether	88		86		70-130	2		20
Tertiary-Amyl Methyl Ether	91		88		70-130	3		20
1,4-Dioxane	83		79		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		93		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	87		92		70-130
Dibromofluoromethane	105		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07,11 Batch: WG462540-1 WG462540-2								
Methylene chloride	102		101		70-130	1		20
1,1-Dichloroethane	94		96		70-130	2		20
Chloroform	100		101		70-130	1		20
Carbon tetrachloride	86		95		70-130	10		20
1,2-Dichloropropane	91		91		70-130	0		20
Dibromochloromethane	91		94		70-130	3		20
1,1,2-Trichloroethane	92		92		70-130	0		20
Tetrachloroethene	96		97		70-130	1		20
Chlorobenzene	87		87		70-130	0		20
Trichlorofluoromethane	120		121		70-130	1		20
1,2-Dichloroethane	106		104		70-130	2		20
1,1,1-Trichloroethane	90		95		70-130	5		20
Bromodichloromethane	95		99		70-130	4		20
trans-1,3-Dichloropropene	71		73		70-130	3		20
cis-1,3-Dichloropropene	77		79		70-130	3		20
1,1-Dichloropropene	97		97		70-130	0		20
Bromoform	88		96		70-130	9		20
1,1,2,2-Tetrachloroethane	95		95		70-130	0		20
Benzene	96		97		70-130	1		20
Toluene	90		91		70-130	1		20
Ethylbenzene	88		89		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07,11 Batch: WG462540-1 WG462540-2								
Chloromethane	87		86		70-130	1		20
Bromomethane	94		86		70-130	9		20
Vinyl chloride	99		96		70-130	3		20
Chloroethane	102		102		70-130	0		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	97		99		70-130	2		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	91		94		70-130	3		20
1,3-Dichlorobenzene	88		90		70-130	2		20
1,4-Dichlorobenzene	89		92		70-130	3		20
Methyl tert butyl ether	97		94		70-130	3		20
p/m-Xylene	88		89		70-130	1		20
o-Xylene	85		86		70-130	1		20
cis-1,2-Dichloroethene	102		102		70-130	0		20
Dibromomethane	106		103		70-130	3		20
1,2,3-Trichloropropane	93		97		70-130	4		20
Styrene	89		89		70-130	0		20
Dichlorodifluoromethane	76		74		70-130	3		20
Acetone	92		88		70-130	4		20
Carbon disulfide	**66**	Q	**68**	Q	70-130	3		20
2-Butanone	83		82		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07,11 Batch: WG462540-1 WG462540-2								
4-Methyl-2-pentanone	76		78		70-130	3		20
2-Hexanone	74		70		70-130	6		20
Bromochloromethane	107		106		70-130	1		20
Tetrahydrofuran	88		91		70-130	3		20
2,2-Dichloropropane	82		86		70-130	5		20
1,2-Dibromoethane	94		94		70-130	0		20
1,3-Dichloropropane	97		93		70-130	4		20
1,1,1,2-Tetrachloroethane	80		85		70-130	6		20
Bromobenzene	94		98		70-130	4		20
n-Butylbenzene	77		80		70-130	4		20
sec-Butylbenzene	80		81		70-130	1		20
tert-Butylbenzene	82		82		70-130	0		20
o-Chlorotoluene	85		88		70-130	3		20
p-Chlorotoluene	87		89		70-130	2		20
1,2-Dibromo-3-chloropropane	80		82		70-130	2		20
Hexachlorobutadiene	88		89		70-130	1		20
Isopropylbenzene	84		84		70-130	0		20
p-Isopropyltoluene	83		85		70-130	2		20
Naphthalene	73		77		70-130	5		20
n-Propylbenzene	84		85		70-130	1		20
1,2,3-Trichlorobenzene	81		84		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104476

Report Date: 04/12/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 07,11 Batch: WG462540-1 WG462540-2								
1,2,4-Trichlorobenzene	82		84		70-130	2		20
1,3,5-Trimethylbenzene	81		83		70-130	2		20
1,2,4-Trimethylbenzene	85		87		70-130	2		20
Ethyl ether	110		108		70-130	2		20
Isopropyl Ether	92		91		70-130	1		20
Ethyl-Tert-Butyl-Ether	87		84		70-130	4		20
Tertiary-Amyl Methyl Ether	85		86		70-130	1		20
1,4-Dioxane	104		101		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		102		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	104		105		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04,09 QC Batch ID: WG462491-7 WG462491-8 QC Sample: L1104476-04 Client ID: MW-46M-20110405-01												
Methylene chloride	ND	10	10	101		10	105		70-130	0		20
1,1-Dichloroethane	ND	10	10	101		10	104		70-130	0		20
Chloroform	ND	10	11	106		11	109		70-130	0		20
Carbon tetrachloride	ND	10	10	104		11	110		70-130	10		20
1,2-Dichloropropane	ND	10	9.1	91		9.5	95		70-130	4		20
Dibromochloromethane	ND	10	9.8	98		11	108		70-130	12		20
1,1,2-Trichloroethane	ND	10	9.4	94		9.9	99		70-130	5		20
Tetrachloroethene	ND	10	11	107		11	108		70-130	0		20
Chlorobenzene	ND	10	8.9	89		9.4	94		70-130	5		20
1,2-Dichloroethane	ND	10	10	105		11	110		70-130	10		20
1,1,1-Trichloroethane	ND	10	11	110		11	114		70-130	0		20
Bromodichloromethane	ND	10	10	100		11	107		70-130	10		20
trans-1,3-Dichloropropene	ND	10	7.2	72		7.8	78		70-130	8		20
cis-1,3-Dichloropropene	ND	10	7.7	77		8.3	83		70-130	8		20
Bromoform	ND	10	10	104		11	111		70-130	10		20
1,1,2,2-Tetrachloroethane	ND	10	10	105		11	107		70-130	10		20
Chloromethane	ND	10	8.6	86		9.0	91		70-130	5		20
Vinyl chloride	ND	10	11	109		11	112		70-130	0		20
Chloroethane	ND	10	11	109		11	113		70-130	0		20
1,1-Dichloroethene	ND	10	12	117		12	121		70-130	0		20
trans-1,2-Dichloroethene	ND	10	10	104		11	107		70-130	10		20

Matrix Spike Analysis
Batch Quality Control

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 04,09 QC Batch ID: WG462491-7 WG462491-8 QC Sample: L1104476-04 Client ID: MW-46M-20110405-01												
Trichloroethene	1.0	10	11	102		12	107		70-130	9		20
1,2-Dichlorobenzene	ND	10	9.3	93		9.8	98		70-130	5		20
1,3-Dichlorobenzene	ND	10	9.0	90		9.6	96		70-130	6		20
1,4-Dichlorobenzene	ND	10	9.1	91		9.6	96		70-130	5		20
cis-1,2-Dichloroethene	ND	10	11	107		11	109		70-130	0		20
Dichlorodifluoromethane	ND	10	8.1	82		8.3	83		70-130	2		20
1,2-Dibromoethane	ND	10	9.2	92		10	103		70-130	8		20
1,3-Dichloropropane	ND	10	9.4	94		10	100		70-130	6		20
1,1,1,2-Tetrachloroethane	ND	10	8.9	89		9.6	96		70-130	8		20
o-Chlorotoluene	ND	10	9.0	90		9.5	95		70-130	5		20
p-Chlorotoluene	ND	10	9.0	90		9.5	95		70-130	5		20
Hexachlorobutadiene	ND	10	8.7	87		9.4	94		70-130	8		20
1,2,4-Trichlorobenzene	ND	10	7.7	77		8.0	80		70-130	4		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		104		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	106		104		70-130
Toluene-d8	99		98		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104476-01A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-01B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-02A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-02B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-03A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-03B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04C	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04D	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04E	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-04F	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-05A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-05B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-06A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-06B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-07A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-07B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-08A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-09A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-09B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-10A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-10B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-11A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-11B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-12A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-12B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104476
Report Date: 04/12/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104476-13A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)
L1104476-13B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104476
Project Number:	0131386.01	**Report Date:**	04/12/11

GLOSSARY

Acronyms

EPA · Environmental Protection Agency.

LCS · Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD · Laboratory Control Sample Duplicate: Refer to LCS.

MDL · Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS · Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD · Matrix Spike Sample Duplicate: Refer to MS.

NA · Not Applicable.

NC · Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI · Not Ignitable.

RL · Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD · Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104476
Project Number:	0131386.01	**Report Date:**	04/12/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

E

Date Rec'd in Lab: 4/5/11

ALPHA Job #: L1104476

Client Information

Client: ERM
Address: 399 Boylston Street 6th floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flattery@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/12/11 Time:

Report Information - Data Deliverables

☐ FAX ☑ EMAIL
☑ ADEx ☑ Add'l Deliverables

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☑ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☑ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☑ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS

SAMPLE HANDLING
Filtration ________
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021C + 8260B)	1,4 Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
04476. 1	MW-202M-20110405-01	4/5/11	1045	GW	EW	2	2		4
2	MW-40-20110405-01		0950		SMC	2			2
3	MW-45B-20110405-01		1345		SMC	2			2
4	MW-46M-20110405-01		0935		SMC	2	2		4
5	MW-47M-20110405-01		1525		SMC	2			2
4	MW-46M-20110405-01-MS		0935		SMC	2			2
4	MW-46M-20110405-01-MSD		0935		SMC	2			2
6	MW-~~145~~-20110405-01		1235		SMC	2			2
7	DUP-004-20110405-01		1111		SMC	2			2
8	TB-002-20110405-01	3/28/11	0654	–	KR	1			1
					Container Type	V	A		
					Preservative	B	A		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1545 4/5/11	[signature]	4/5/11 1320
[signature]	4/5/11 1630	[signature]	4/5/11 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA ANALYTICAL

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANSFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

E

Date Rec'd in Lab: 4/5/11

ALPHA Job #: L1104476

Client Information

Client: ERM

Address: 399 Boylston St. 6th floor Boston, MA

Phone: (617) 646-7800

Fax: (617) 267-6447

Email: jason.flattery@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland

Project Location: Wayland, MA

Project #: 0131386

Project Manager: Jason Flattery

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/12/11 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☒ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA MCP Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required, indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All *CAM* methods for inorganic analyses require MS every 20 soil samples)

ANALYSIS: CVOCs (8021C x 8260B); 1,4 Dioxane (8270SIM)

SAMPLE HANDLING
Filtration
☒ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs (8021C x 8260B)	1,4 Dioxane (8270SIM)	Sample Specific Comments	TOTAL # BOTTLES
04476. 9	MW-203D-20110405-01	4/5/11	1310	GW	EW	2			2
10	MW-205M-20110405-01		1045	GW	LJM	2			2
11	MW-206M-20110405-01		1245	GW	LJM	2			2
12	MW-206D-20110405-01		1435	GW	LJM	2			2
13	MW-207M-20110405-01		1540	GW	LJM	2			2

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

	CVOCs	1,4 Dioxane
Container Type	V	A
Preservative	B	A

Relinquished By:	Date/Time	Received By:	Date/Time
Emily Wirz	4/5/11 1545	Norman Anbeau	4/5/11 1545
Norman Anbeau	4/5/11 1630	[illegible]	4/5/11 1630

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104476

Instrument ID: Quimby.i Calibration Date: 12-APR-2011 Time: 06:09

Lab File ID: 0412A01 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.34924	.2657	.1	24	20	F
chloromethane	.35628	.31039	.1	13	20	
vinyl chloride	.30181	.2991	.1	1	20	
bromomethane	.22898	.21492	.1	6	20	
chloroethane	.20794	.21238	.1	-2	20	
trichlorofluoromethane	.42568	.51162	.1	-20	20	F
ethyl ether	.12007	.13177	.05	-10	20	
acetone	100	92.453	.1	8	20	
1,1,-dichloroethene	.30271	.30334	.1	0	20	
methylene chloride	.30372	.31128	.1	-2	20	
carbon disulfide	.91586	.60772	.1	34	20	F
methyl tert butyl ether	.51963	.50426	.1	3	20	
trans-1,2-dichloroethene	.34461	.33317	.1	3	20	
Diisopropyl Ether	.81846	.75445	.05	8	20	
1,1-dichloroethane	.58497	.55208	.2	6	20	
Ethyl-Tert-Butyl-Ether	.7021	.61103	.05	13	20	
2-butanone	.05505	.04565	.1	17	20	F
2,2-dichloropropane	.38987	.31865	.05	18	20	
cis-1,2-dichloroethene	.36598	.37211	.1	-2	20	
chloroform	.55517	.55621	.2	0	20	
bromochloromethane	.13826	.14808	.05	-7	20	
tetrahydrofuran	100	87.931	.05	12	20	
1,1,1-trichloroethane	.50175	.45002	.1	10	20	
1,1-dichloropropene	.47777	.46309	.05	3	20	
carbontetrachloride	.40299	.34572	.1	14	20	
Tertiary-Amyl Methyl Ether	.59124	.5022	.05	15	20	
1,2-dichloroethane	.29658	.31413	.1	-6	20	
benzene	1.4222	1.3596	.5	4	20	
trichloroethene	.35492	.35087	.2	1	20	
1,2-dichloropropane	.31236	.28452	.1	9	20	
bromodichloromethane	.34843	.33109	.2	5	20	
1,4-dioxane	.00121	.00126	.05	-4	20	F
dibromomethane	.12614	.13325	.05	-6	20	
4-methyl-2-pentanone	.05144	.03907	.1	24	20	F
cis-1,3-dichloropropene	.449	.3472	.2	23	20	F
toluene	1.1887	1.0735	.4	10	20	
trans-1,3-dichloropropene	.40626	.28836	.1	29	20	F
1,1,2-trichloroethane	.18806	.17405	.1	7	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104476

Instrument ID: Quimby.i Calibration Date: 12-APR-2011 Time: 06:09

Lab File ID: 0412A01 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
2-hexanone	.10447	.07694	.1	26	20	F
1,3-dichloropropane	.41055	.39677	.05	3	20	
tetrachloroethene	.54918	.52585	.2	4	20	
chlorodibromomethane	.26275	.23967	.1	9	20	
1,2-dibromoethane	.21528	.20211	.1	6	20	
chlorobenzene	1.3469	1.1658	.5	13	20	
1,1,1,2-tetrachloroethane	.39146	.31358	.05	20	20	
ethyl benzene	2.4104	2.1315	.1	12	20	
p/m xylene	.97612	.86373	.1	12	20	
o xylene	.96041	.81937	.3	15	20	
styrene	1.5385	1.3628	.31	11	20	
isopropylbenzene	2.4862	2.0872	.1	16	20	
bromoform	.23103	.20209	.1	13	20	
1,1,2,2,-tetrachloroethane	.38882	.36852	.3	5	20	
1,2,3-trichloropropane	.302	.28098	.05	7	20	
n-propylbenzene	4.2789	3.5713	.05	17	20	
bromobenzene	.85391	.80314	.05	6	20	
1,3,5-trimethybenzene	3.1161	2.5313	.05	19	20	
2-chlorotoluene	2.8216	2.4048	.05	15	20	
4-chorotoluene	2.6385	2.2934	.05	13	20	
tert-butylbenzene	2.7401	2.2414	.05	18	20	
1,2,4-trimethylbenzene	3.1459	2.6622	.05	15	20	
sec-butylbenzene	3.7202	2.9705	.05	20	20	F
p-isopropyltoluene	3.1690	2.6223	.05	17	20	
1,3-dichlorobenzene	1.7564	1.5533	.6	12	20	
1,4-dichlorobenzene	1.7757	1.5839	.5	11	20	
n-butylbenzene	3.0962	2.3922	.05	23	20	F
1,2-dichlorobenzene	1.4995	1.3606	.4	9	20	
1,2-dibromo-3-chloropropane	.05659	.04511	.05	20	20	F
1,2,4-trichlorobenzene	.83258	.68049	.2	18	20	
hexachlorobutadiene	.4051	.35552	.05	12	20	
naphthalene	1.3212	.96782	.05	27	20	F
1,2,3-trichlorobenzene	.61394	.49726	.05	19	20	
dibromofluoromethane	.23183	.24141	.05	-4	20	
1,2-dichloroethane-d4	.19112	.20365	.05	-7	20	
toluene-d8	1.2966	1.2621	.05	3	20	
4-bromofluorobenzene	.84277	.82064	.05	3	20	

FORM VII MCP-8260-10

ANALYTICAL REPORT

Lab Number:	L1104558
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Phone:	(617) 646-7816
Project Name:	RAYTHEON WAYLAND
Project Number:	0131386.01
Report Date:	04/25/11

Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104558
Report Date: 04/25/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1104558-01	MW-118-20110405-01	WAYLAND, MA	04/05/11 16:15
L1104558-02	MW-208M-20110406-01	WAYLAND, MA	04/06/11 08:55
L1104558-03	MW-201M-20110406-01	WAYLAND, MA	04/06/11 11:45
L1104558-04	MW-403-20110406-01	WAYLAND, MA	04/06/11 13:40
L1104558-05	MW-105-20110406-01	WAYLAND, MA	04/06/11 14:00
L1104558-06	TB-003-20110406-01	WAYLAND, MA	04/05/11 00:00
L1104558-07	MW-204M-20110406-01	WAYLAND, MA	04/06/11 10:25
L1104558-08	DUP-005-20110406-01	WAYLAND, MA	04/06/11 14:14
L1104558-09	MW-269MA-20110406-01	WAYLAND, MA	04/06/11 14:35

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

MADEP MCP Response Action Analytical Report Certification

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

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

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

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

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104558
Report Date: 04/25/11

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

For additional information, please contact Client Services at 800-624-9220.

Report Submission

This report replaces the report issued April 13, 2011. At the client's request, the report has been amended to only include the results and chain of custody for L1104558-01 through -09.

MCP Related Narratives

Report Submission

The analysis of 1,4-Dioxane by method 8270-SIM isotope dilution is being performed at our Mansfield facility. The results will be issued under separate cover.

Volatile Organics

L1104558-01 and 02: The pH of the samples was greater than two; however, the samples were analyzed within the method required holding time.

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104558
Project Number:	0131386.01	**Report Date:**	04/25/11

Case Narrative (continued)

In reference to question H:

The WG462116-2 LCSD recovery, associated with L1104558-01 and -02, is below the acceptance criteria for Dichlorodifluoromethane (65%); however, it has been identified as a "difficult" analyte and is within the 40-160% acceptance limits. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

The WG462692-1/-2 LCS/LCSD RPD, associated with L1104558-06, is above the acceptance criteria for Carbon tetrachloride (22%); however, the individual LCS/LCSD recoveries are within method limits.

The continuing calibration standards, associated with L1104558-01 through -09, are outside the acceptance criteria for several compounds; however, they are within overall method allowances. Copies of the continuing calibration standards are included as an addendum to this report.

In reference to question I:

L1104558-01 through -09 were analyzed for a subset of MCP compounds per the Chain of Custody.

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

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative Date: 04/25/11

ORGANICS

VOLATILES

Project Name: RAYTHEON WAYLAND
Lab Number: L1104558
Project Number: 0131386.01
Report Date: 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-01
Client ID: MW-118-20110405-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/08/11 13:03
Analyst: MM

Date Collected: 04/05/11 16:15
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-01 Date Collected: 04/05/11 16:15

Client ID: MW-118-20110405-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-02
Client ID: MW-208M-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/08/11 13:35
Analyst: MM

Date Collected: 04/06/11 08:55
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	4.4		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	1.3		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	2.4		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	46		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.6		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-02 Date Collected: 04/06/11 08:55

Client ID: MW-208M-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-03
Client ID: MW-201M-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 10:20
Analyst: MM

Date Collected: 04/06/11 11:45
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.9		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	3.1		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	44		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	41		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-03 Date Collected: 04/06/11 11:45

Client ID: MW-201M-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	111		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-04
Client ID: MW-403-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 10:51
Analyst: MM

Date Collected: 04/06/11 13:40
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	1.2		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	1.3		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	30		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	1.7		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-04 Date Collected: 04/06/11 13:40

Client ID: MW-403-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	111		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104558
Project Number: 0131386.01
Report Date: 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-05
Client ID: MW-105-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 11:23
Analyst: MM

Date Collected: 04/06/11 14:00
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	1.2		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	7.6		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-05 Date Collected: 04/06/11 14:00

Client ID: MW-105-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	110		70-130

Project Name: RAYTHEON WAYLAND
Lab Number: L1104558
Project Number: 0131386.01
Report Date: 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-06
Client ID: TB-003-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 15:48
Analyst: MM

Date Collected: 04/05/11 00:00
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-06 Date Collected: 04/05/11 00:00

Client ID: TB-003-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-07
Client ID: MW-204M-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/12/11 11:55
Analyst: MM

Date Collected: 04/06/11 10:25
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.0		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	28		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	5.8		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	120		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-07 Date Collected: 04/06/11 10:25

Client ID: MW-204M-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	109		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-08
Client ID: DUP-005-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 16:37
Analyst: MM

Date Collected: 04/06/11 14:14
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.9		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	2.9		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	43		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	40		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-08 Date Collected: 04/06/11 14:14

Client ID: DUP-005-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-09
Client ID: MW-269MA-20110406-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 97,8260B
Analytical Date: 04/11/11 17:09
Analyst: MM

Date Collected: 04/06/11 14:35
Date Received: 04/06/11
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	1.2		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	2.1		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1

Project Name: RAYTHEON WAYLAND **Lab Number:** L1104558

Project Number: 0131386.01 **Report Date:** 04/25/11

SAMPLE RESULTS

Lab ID: L1104558-09 Date Collected: 04/06/11 14:35

Client ID: MW-269MA-20110406-01 Date Received: 04/06/11

Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
p-Chlorotoluene	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/08/11 06:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG462116-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/08/11 06:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG462116-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/08/11 06:45
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG462116-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	104		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08-09 Batch: WG462492-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08-09 Batch: WG462492-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/11/11 09:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 08-09 Batch: WG462492-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-05,07 Batch: WG462540-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-05,07 Batch: WG462540-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 07:42
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 03-05,07 Batch: WG462540-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 15:16
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG462692-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 15:16
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG462692-3					
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260B
Analytical Date: 04/12/11 15:16
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 06 Batch: WG462692-3					
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,4-Dioxane	ND		ug/l	250	--
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG462116-1 WG462116-2								
Methylene chloride	103		100		70-130	3		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	104		100		70-130	4		20
Carbon tetrachloride	93		85		70-130	9		20
1,2-Dichloropropane	97		93		70-130	4		20
Dibromochloromethane	95		89		70-130	7		20
1,1,2-Trichloroethane	96		95		70-130	1		20
Tetrachloroethene	103		99		70-130	4		20
Chlorobenzene	92		90		70-130	2		20
Trichlorofluoromethane	120		110		70-130	9		20
1,2-Dichloroethane	105		100		70-130	5		20
1,1,1-Trichloroethane	96		90		70-130	6		20
Bromodichloromethane	99		92		70-130	7		20
trans-1,3-Dichloropropene	76		72		70-130	5		20
cis-1,3-Dichloropropene	82		77		70-130	6		20
1,1-Dichloropropene	100		95		70-130	5		20
Bromoform	96		87		70-130	10		20
1,1,2,2-Tetrachloroethane	101		99		70-130	2		20
Benzene	100		96		70-130	4		20
Toluene	95		92		70-130	3		20
Ethylbenzene	95		92		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG462116-1 WG462116-2								
Chloromethane	81		78		70-130	4		20
Bromomethane	**68**	Q	**54**	Q	70-130	**23**	Q	20
Vinyl chloride	97		88		70-130	10		20
Chloroethane	102		98		70-130	4		20
1,1-Dichloroethene	105		97		70-130	8		20
trans-1,2-Dichloroethene	102		96		70-130	6		20
Trichloroethene	102		98		70-130	4		20
1,2-Dichlorobenzene	100		95		70-130	5		20
1,3-Dichlorobenzene	99		93		70-130	6		20
1,4-Dichlorobenzene	99		94		70-130	5		20
Methyl tert butyl ether	95		94		70-130	1		20
p/m-Xylene	96		93		70-130	3		20
o-Xylene	94		92		70-130	2		20
cis-1,2-Dichloroethene	107		102		70-130	5		20
Dibromomethane	102		100		70-130	2		20
1,2,3-Trichloropropane	100		97		70-130	3		20
Styrene	96		95		70-130	1		20
Dichlorodifluoromethane	73		**65**	Q	70-130	12		20
Acetone	98		97		70-130	1		20
Carbon disulfide	94		95		70-130	1		20
2-Butanone	87		91		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG462116-1 WG462116-2								
4-Methyl-2-pentanone	89		92		70-130	3		20
2-Hexanone	82		87		70-130	6		20
Bromochloromethane	109		103		70-130	6		20
Tetrahydrofuran	95		94		70-130	1		20
2,2-Dichloropropane	87		82		70-130	6		20
1,2-Dibromoethane	96		96		70-130	0		20
1,3-Dichloropropane	98		96		70-130	2		20
1,1,1,2-Tetrachloroethane	88		81		70-130	8		20
Bromobenzene	105		99		70-130	6		20
n-Butylbenzene	89		86		70-130	3		20
sec-Butylbenzene	93		88		70-130	6		20
tert-Butylbenzene	93		90		70-130	3		20
o-Chlorotoluene	98		93		70-130	5		20
p-Chlorotoluene	99		95		70-130	4		20
1,2-Dibromo-3-chloropropane	89		80		70-130	11		20
Hexachlorobutadiene	91		84		70-130	8		20
Isopropylbenzene	92		89		70-130	3		20
p-Isopropyltoluene	96		92		70-130	4		20
Naphthalene	87		84		70-130	4		20
n-Propylbenzene	96		93		70-130	3		20
1,2,3-Trichlorobenzene	87		83		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG462116-1 WG462116-2								
1,2,4-Trichlorobenzene	90		86		70-130	5		20
1,3,5-Trimethylbenzene	92		88		70-130	4		20
1,2,4-Trimethylbenzene	95		90		70-130	5		20
Ethyl ether	106		104		70-130	2		20
Isopropyl Ether	94		95		70-130	1		20
Ethyl-Tert-Butyl-Ether	88		87		70-130	1		20
Tertiary-Amyl Methyl Ether	89		90		70-130	1		20
1,4-Dioxane	114		116		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		103		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	102		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 08-09 Batch: WG462492-1 WG462492-2								
Methylene chloride	102		94		70-130	8		20
1,1-Dichloroethane	99		92		70-130	7		20
Chloroform	102		96		70-130	6		20
Carbon tetrachloride	98		95		70-130	3		20
1,2-Dichloropropane	92		88		70-130	4		20
Dibromochloromethane	98		94		70-130	4		20
1,1,2-Trichloroethane	95		88		70-130	8		20
Tetrachloroethene	99		93		70-130	6		20
Chlorobenzene	89		84		70-130	6		20
Trichlorofluoromethane	123		118		70-130	4		20
1,2-Dichloroethane	108		102		70-130	6		20
1,1,1-Trichloroethane	98		94		70-130	4		20
Bromodichloromethane	102		94		70-130	8		20
trans-1,3-Dichloropropene	76		71		70-130	7		20
cis-1,3-Dichloropropene	82		75		70-130	9		20
1,1-Dichloropropene	100		94		70-130	6		20
Bromoform	102		93		70-130	9		20
1,1,2,2-Tetrachloroethane	98		92		70-130	6		20
Benzene	98		91		70-130	7		20
Toluene	91		87		70-130	4		20
Ethylbenzene	90		85		70-130	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 08-09 Batch: WG462492-1 WG462492-2								
Chloromethane	87		82		70-130	6		20
Bromomethane	80		74		70-130	8		20
Vinyl chloride	100		97		70-130	3		20
Chloroethane	103		98		70-130	5		20
1,1-Dichloroethene	102		100		70-130	2		20
trans-1,2-Dichloroethene	101		95		70-130	6		20
Trichloroethene	103		94		70-130	9		20
1,2-Dichlorobenzene	96		89		70-130	8		20
1,3-Dichlorobenzene	92		87		70-130	6		20
1,4-Dichlorobenzene	93		87		70-130	7		20
Methyl tert butyl ether	94		88		70-130	7		20
p/m-Xylene	90		85		70-130	6		20
o-Xylene	87		83		70-130	5		20
cis-1,2-Dichloroethene	102		97		70-130	5		20
Dibromomethane	108		98		70-130	10		20
1,2,3-Trichloropropane	100		91		70-130	9		20
Styrene	91		86		70-130	6		20
Dichlorodifluoromethane	79		75		70-130	5		20
Acetone	95		88		70-130	8		20
Carbon disulfide	76		74		70-130	3		20
2-Butanone	84		78		70-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 08-09 Batch: WG462492-1 WG462492-2								
4-Methyl-2-pentanone	84		75		70-130	11		20
2-Hexanone	76		70		70-130	8		20
Bromochloromethane	110		102		70-130	8		20
Tetrahydrofuran	87		82		70-130	6		20
2,2-Dichloropropane	87		84		70-130	4		20
1,2-Dibromoethane	98		91		70-130	7		20
1,3-Dichloropropane	98		90		70-130	9		20
1,1,1,2-Tetrachloroethane	88		84		70-130	5		20
Bromobenzene	100		93		70-130	7		20
n-Butylbenzene	80		76		70-130	5		20
sec-Butylbenzene	82		77		70-130	6		20
tert-Butylbenzene	84		79		70-130	6		20
o-Chlorotoluene	89		84		70-130	6		20
p-Chlorotoluene	91		86		70-130	6		20
1,2-Dibromo-3-chloropropane	90		84		70-130	7		20
Hexachlorobutadiene	91		90		70-130	1		20
Isopropylbenzene	85		80		70-130	6		20
p-Isopropyltoluene	86		82		70-130	5		20
Naphthalene	78		71		70-130	9		20
n-Propylbenzene	86		82		70-130	5		20
1,2,3-Trichlorobenzene	85		77		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 08-09 Batch: WG462492-1 WG462492-2								
1,2,4-Trichlorobenzene	87		81		70-130	7		20
1,3,5-Trimethylbenzene	84		79		70-130	6		20
1,2,4-Trimethylbenzene	87		82		70-130	6		20
Ethyl ether	110		100		70-130	10		20
Isopropyl Ether	93		88		70-130	6		20
Ethyl-Tert-Butyl-Ether	85		81		70-130	5		20
Tertiary-Amyl Methyl Ether	86		80		70-130	7		20
1,4-Dioxane	102		91		70-130	11		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		104		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-05,07 Batch: WG462540-1 WG462540-2								
Methylene chloride	102		101		70-130	1		20
1,1-Dichloroethane	94		96		70-130	2		20
Chloroform	100		101		70-130	1		20
Carbon tetrachloride	86		95		70-130	10		20
1,2-Dichloropropane	91		91		70-130	0		20
Dibromochloromethane	91		94		70-130	3		20
1,1,2-Trichloroethane	92		92		70-130	0		20
Tetrachloroethene	96		97		70-130	1		20
Chlorobenzene	87		87		70-130	0		20
Trichlorofluoromethane	120		121		70-130	1		20
1,2-Dichloroethane	106		104		70-130	2		20
1,1,1-Trichloroethane	90		95		70-130	5		20
Bromodichloromethane	95		99		70-130	4		20
trans-1,3-Dichloropropene	71		73		70-130	3		20
cis-1,3-Dichloropropene	77		79		70-130	3		20
1,1-Dichloropropene	97		97		70-130	0		20
Bromoform	88		96		70-130	9		20
1,1,2,2-Tetrachloroethane	95		95		70-130	0		20
Benzene	96		97		70-130	1		20
Toluene	90		91		70-130	1		20
Ethylbenzene	88		89		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-05,07 Batch: WG462540-1 WG462540-2								
Chloromethane	87		86		70-130	1		20
Bromomethane	94		86		70-130	9		20
Vinyl chloride	99		96		70-130	3		20
Chloroethane	102		102		70-130	0		20
1,1-Dichloroethene	100		100		70-130	0		20
trans-1,2-Dichloroethene	97		99		70-130	2		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	91		94		70-130	3		20
1,3-Dichlorobenzene	88		90		70-130	2		20
1,4-Dichlorobenzene	89		92		70-130	3		20
Methyl tert butyl ether	97		94		70-130	3		20
p/m-Xylene	88		89		70-130	1		20
o-Xylene	85		86		70-130	1		20
cis-1,2-Dichloroethene	102		102		70-130	0		20
Dibromomethane	106		103		70-130	3		20
1,2,3-Trichloropropane	93		97		70-130	4		20
Styrene	89		89		70-130	0		20
Dichlorodifluoromethane	76		74		70-130	3		20
Acetone	92		88		70-130	4		20
Carbon disulfide	**66**	Q	**68**	Q	70-130	3		20
2-Butanone	83		82		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-05,07 Batch: WG462540-1 WG462540-2								
4-Methyl-2-pentanone	76		78		70-130	3		20
2-Hexanone	74		70		70-130	6		20
Bromochloromethane	107		106		70-130	1		20
Tetrahydrofuran	88		91		70-130	3		20
2,2-Dichloropropane	82		86		70-130	5		20
1,2-Dibromoethane	94		94		70-130	0		20
1,3-Dichloropropane	97		93		70-130	4		20
1,1,1,2-Tetrachloroethane	80		85		70-130	6		20
Bromobenzene	94		98		70-130	4		20
n-Butylbenzene	77		80		70-130	4		20
sec-Butylbenzene	80		81		70-130	1		20
tert-Butylbenzene	82		82		70-130	0		20
o-Chlorotoluene	85		88		70-130	3		20
p-Chlorotoluene	87		89		70-130	2		20
1,2-Dibromo-3-chloropropane	80		82		70-130	2		20
Hexachlorobutadiene	88		89		70-130	1		20
Isopropylbenzene	84		84		70-130	0		20
p-Isopropyltoluene	83		85		70-130	2		20
Naphthalene	73		77		70-130	5		20
n-Propylbenzene	84		85		70-130	1		20
1,2,3-Trichlorobenzene	81		84		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 03-05,07 Batch: WG462540-1 WG462540-2								
1,2,4-Trichlorobenzene	82		84		70-130	2		20
1,3,5-Trimethylbenzene	81		83		70-130	2		20
1,2,4-Trimethylbenzene	85		87		70-130	2		20
Ethyl ether	110		108		70-130	2		20
Isopropyl Ether	92		91		70-130	1		20
Ethyl-Tert-Butyl-Ether	87		84		70-130	4		20
Tertiary-Amyl Methyl Ether	85		86		70-130	1		20
1,4-Dioxane	104		101		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		102		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	104		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG462692-1 WG462692-2								
Methylene chloride	106		110		70-130	4		20
1,1-Dichloroethane	97		104		70-130	7		20
Chloroform	102		111		70-130	8		20
Carbon tetrachloride	81		101		70-130	**22**	Q	20
1,2-Dichloropropane	93		100		70-130	7		20
Dibromochloromethane	95		99		70-130	4		20
1,1,2-Trichloroethane	110		98		70-130	12		20
Tetrachloroethene	106		102		70-130	4		20
Chlorobenzene	96		93		70-130	3		20
Trichlorofluoromethane	**137**	Q	**144**	Q	70-130	5		20
1,2-Dichloroethane	112		117		70-130	4		20
1,1,1-Trichloroethane	92		104		70-130	12		20
Bromodichloromethane	93		106		70-130	13		20
trans-1,3-Dichloropropene	73		74		70-130	1		20
cis-1,3-Dichloropropene	76		82		70-130	8		20
1,1-Dichloropropene	104		110		70-130	6		20
Bromoform	89		96		70-130	8		20
1,1,2,2-Tetrachloroethane	104		99		70-130	5		20
Benzene	101		105		70-130	4		20
Toluene	98		96		70-130	2		20
Ethylbenzene	94		91		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG462692-1 WG462692-2								
Chloromethane	91		96		70-130	5		20
Bromomethane	70		90		70-130	**25**	Q	20
Vinyl chloride	110		116		70-130	5		20
Chloroethane	110		115		70-130	4		20
1,1-Dichloroethene	108		115		70-130	6		20
trans-1,2-Dichloroethene	101		108		70-130	7		20
Trichloroethene	104		110		70-130	6		20
1,2-Dichlorobenzene	101		100		70-130	1		20
1,3-Dichlorobenzene	96		97		70-130	1		20
1,4-Dichlorobenzene	98		97		70-130	1		20
Methyl tert butyl ether	95		94		70-130	1		20
p/m-Xylene	95		92		70-130	3		20
o-Xylene	89		87		70-130	2		20
cis-1,2-Dichloroethene	104		113		70-130	8		20
Dibromomethane	110		115		70-130	4		20
1,2,3-Trichloropropane	110		102		70-130	8		20
Styrene	94		92		70-130	2		20
Dichlorodifluoromethane	97		102		70-130	5		20
Acetone	102		100		70-130	2		20
Carbon disulfide	84		92		70-130	9		20
2-Butanone	92		91		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG462692-1 WG462692-2								
4-Methyl-2-pentanone	89		85		70-130	5		20
2-Hexanone	89		82		70-130	8		20
Bromochloromethane	113		120		70-130	6		20
Tetrahydrofuran	98		95		70-130	3		20
2,2-Dichloropropane	77		90		70-130	16		20
1,2-Dibromoethane	107		101		70-130	6		20
1,3-Dichloropropane	109		102		70-130	7		20
1,1,1,2-Tetrachloroethane	82		88		70-130	7		20
Bromobenzene	104		105		70-130	1		20
n-Butylbenzene	80		81		70-130	1		20
sec-Butylbenzene	80		80		70-130	0		20
tert-Butylbenzene	82		84		70-130	2		20
o-Chlorotoluene	92		92		70-130	0		20
p-Chlorotoluene	94		94		70-130	0		20
1,2-Dibromo-3-chloropropane	82		86		70-130	5		20
Hexachlorobutadiene	90		97		70-130	7		20
Isopropylbenzene	86		84		70-130	2		20
p-Isopropyltoluene	85		87		70-130	2		20
Naphthalene	81		79		70-130	3		20
n-Propylbenzene	85		86		70-130	1		20
1,2,3-Trichlorobenzene	87		86		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Project Number: 0131386.01

Lab Number: L1104558

Report Date: 04/25/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 06 Batch: WG462692-1 WG462692-2								
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,3,5-Trimethylbenzene	86		86		70-130	0		20
1,2,4-Trimethylbenzene	90		91		70-130	1		20
Ethyl ether	109		109		70-130	0		20
Isopropyl Ether	90		93		70-130	3		20
Ethyl-Tert-Butyl-Ether	85		86		70-130	1		20
Tertiary-Amyl Methyl Ether	85		85		70-130	0		20
1,4-Dioxane	117		115		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		102		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	97		105		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104558
Report Date: 04/25/11

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104558-01A	Clear Vial Ascorbic Acid preserv	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-01B	Clear Vial Ascorbic Acid preserv	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-02A	Clear Vial Ascorbic Acid preserv	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-02B	Clear Vial Ascorbic Acid preserv	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-03A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-03B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-04A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-04B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-05A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-05B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-06A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-07A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-07B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-08A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-08B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-09A	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-09B	Vial HCl preserved	A	N/A	4.6	Y	Absent	MCP-8260-10(14)
L1104558-10A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-10B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-11A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-11B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-12A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-12B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-13A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-13B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-14A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-14B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-

*Values in parentheses indicate holding time in days

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01

Lab Number: L1104558
Report Date: 04/25/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1104558-15A	Vial HCl preserved	A	N/A	4.6	Y	Absent	-
L1104558-15B	Vial HCl preserved	A	N/A	4.6	Y	Absent	-

*Values in parentheses indicate holding time in days

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104558
Project Number:	0131386.01	**Report Date:**	04/25/11

GLOSSARY

Acronyms

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when

Project Name:	RAYTHEON WAYLAND	**Lab Number:**	L1104558
Project Number:	0131386.01	**Report Date:**	04/25/11

Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: RAYTHEON WAYLAND
Project Number: 0131386.01
Lab Number: L1104558
Report Date: 04/25/11

REFERENCES

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised February 23, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3.3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil (*Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B**,**

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NY-DOH.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476-09-1. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Department of Defense Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline. **EPA 350.1** for Ammonia in a Soil matrix.

Serial_No:04251117:19

CHAIN OF CUSTODY

PAGE 1 OF 1

E

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/6/11

ALPHA Job #: L1104558

Client Information

Client: ERM
Address: 399 Boylston St. 6th floor Boston, MA
Phone: (617) 646-7800
Fax: (617) 267-6447
Email: jason.flatteny@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0131386.01
Project Manager: Jason Flatteny
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/13/11 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☒ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program MA MCP | Criteria GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Is Matrix Spike (MS) Required on this SDG? (If yes see note in Comments)
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

If MS is required , indicate in Sample Specific Comments which samples and what tests MS to be performed.
(Note: All ***CAM*** methods for inorganic analyses require MS every 20 soil samples)

Samples preserved w/ ascorbic have shortened hold time

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: CVOCs (8021C + 8260B)	CVOCs (8021C + 8260B)	1,4 Dioxane (8270SIM)	SAMPLE HANDLING: Filtration	Sample Specific Comments	TOTAL # BOTTLES
4558.1	MW-118-20110405-01	4/5/11	1615	GW	EW	2				Shortened holding time	2
2	MW-208M-20110406-01	4/6/11	0855		EW	2				Shortened holding time	2
3	MW-201M-20110406-01		1145		EW		2				2
4	MW-403-20110406-01		1340		EW		2	2			4
5	MW-105-20110406-01		1400		LJM		2				2
6 7	TB-003-20110406-01	3/28/11	0543	—	KR		1				1
7 8	MW-204M-20110406-01	4/6/11	1025	GW	EW		2				2
8 9	DUP-005-20110406-01	4/6/11	1414	GW	EW		2				2
9 10	MW-269Ma-20110406-01	4/6/11	1400 (a) 1435	GW	SMC		2	2			4
											(a)
	Container Type					V	V	A			
	Preservative					I	B	A			

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	4/6/11 1530		4/6/11 1530
	4/6/11 1610		4/6/11 1610

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 18-Jan-2010)

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 12-APR-2011 Time: 06:09

Lab File ID: 0412A01 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.34924	.2657	.1	24	20	F
chloromethane	.35628	.31039	.1	13	20	
vinyl chloride	.30181	.2991	.1	1	20	
bromomethane	.22898	.21492	.1	6	20	
chloroethane	.20794	.21238	.1	-2	20	
trichlorofluoromethane	.42568	.51162	.1	-20	20	F
ethyl ether	.12007	.13177	.05	-10	20	
acetone	100	92.453	.1	8	20	
1,1,-dichloroethene	.30271	.30334	.1	0	20	
methylene chloride	.30372	.31128	.1	-2	20	
carbon disulfide	.91586	.60772	.1	34	20	F
methyl tert butyl ether	.51963	.50426	.1	3	20	
trans-1,2-dichloroethene	.34461	.33317	.1	3	20	
Diisopropyl Ether	.81846	.75445	.05	8	20	
1,1-dichloroethane	.58497	.55208	.2	6	20	
Ethyl-Tert-Butyl-Ether	.7021	.61103	.05	13	20	
2-butanone	.05505	.04565	.1	17	20	F
2,2-dichloropropane	.38987	.31865	.05	18	20	
cis-1,2-dichloroethene	.36598	.37211	.1	-2	20	
chloroform	.55517	.55621	.2	0	20	
bromochloromethane	.13826	.14808	.05	-7	20	
tetrahydrofuran	100	87.931	.05	12	20	
1,1,1-trichloroethane	.50175	.45002	.1	10	20	
1,1-dichloropropene	.47777	.46309	.05	3	20	
carbontetrachloride	.40299	.34572	.1	14	20	
Tertiary-Amyl Methyl Ether	.59124	.5022	.05	15	20	
1,2-dichloroethane	.29658	.31413	.1	-6	20	
benzene	1.4222	1.3596	.5	4	20	
trichloroethene	.35492	.35087	.2	1	20	
1,2-dichloropropane	.31236	.28452	.1	9	20	
bromodichloromethane	.34843	.33109	.2	5	20	
1,4-dioxane	.00121	.00126	.05	-4	20	F
dibromomethane	.12614	.13325	.05	-6	20	
4-methyl-2-pentanone	.05144	.03907	.1	24	20	F
cis-1,3-dichloropropene	.449	.3472	.2	23	20	F
toluene	1.1887	1.0735	.4	10	20	
trans-1,3-dichloropropene	.40626	.28836	.1	29	20	F
1,1,2-trichloroethane	.18806	.17405	.1	7	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 12-APR-2011 Time: 06:09

Lab File ID: 0412A01 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
2-hexanone	.10447	.07694	.1	26	20	F
1,3-dichloropropane	.41055	.39677	.05	3	20	
tetrachloroethene	.54918	.52585	.2	4	20	
chlorodibromomethane	.26275	.23967	.1	9	20	
1,2-dibromoethane	.21528	.20211	.1	6	20	
chlorobenzene	1.3469	1.1658	.5	13	20	
1,1,1,2-tetrachloroethane	.39146	.31358	.05	20	20	
ethyl benzene	2.4104	2.1315	.1	12	20	
p/m xylene	.97612	.86373	.1	12	20	
o xylene	.96041	.81937	.3	15	20	
styrene	1.5385	1.3628	.31	11	20	
isopropylbenzene	2.4862	2.0872	.1	16	20	
bromoform	.23103	.20209	.1	13	20	
1,1,2,2,-tetrachloroethane	.38882	.36852	.3	5	20	
1,2,3-trichloropropane	.302	.28098	.05	7	20	
n-propylbenzene	4.2789	3.5713	.05	17	20	
bromobenzene	.85391	.80314	.05	6	20	
1,3,5-trimethybenzene	3.1161	2.5313	.05	19	20	
2-chlorotoluene	2.8216	2.4048	.05	15	20	
4-chorotoluene	2.6385	2.2934	.05	13	20	
tert-butylbenzene	2.7401	2.2414	.05	18	20	
1,2,4-trimethylbenzene	3.1459	2.6622	.05	15	20	
sec-butylbenzene	3.7202	2.9705	.05	20	20	F
p-isopropyltoluene	3.1690	2.6223	.05	17	20	
1,3-dichlorobenzene	1.7564	1.5533	.6	12	20	
1,4-dichlorobenzene	1.7757	1.5839	.5	11	20	
n-butylbenzene	3.0962	2.3922	.05	23	20	F
1,2-dichlorobenzene	1.4995	1.3606	.4	9	20	
1,2-dibromo-3-chloropropane	.05659	.04511	.05	20	20	F
1,2,4-trichlorobenzene	.83258	.68049	.2	18	20	
hexachlorobutadiene	.4051	.35552	.05	12	20	
naphthalene	1.3212	.96782	.05	27	20	F
1,2,3-trichlorobenzene	.61394	.49726	.05	19	20	
dibromofluoromethane	.23183	.24141	.05	-4	20	
1,2-dichloroethane-d4	.19112	.20365	.05	-7	20	
toluene-d8	1.2966	1.2621	.05	3	20	
4-bromofluorobenzene	.84277	.82064	.05	3	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 11-APR-2011 Time: 08:12

Lab File ID: 0411A03 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.34924	.275	.1	21	20	F
chloromethane	.35628	.31076	.1	13	20	
vinyl chloride	.30181	.30279	.1	0	20	
bromomethane	.22898	.18212	.1	20	20	F
chloroethane	.20794	.21419	.1	-3	20	
trichlorofluoromethane	.42568	.52415	.1	-23	20	F
ethyl ether	.12007	.13189	.05	-10	20	
acetone	100	95.270	.1	5	20	
1,1,-dichloroethene	.30271	.30862	.1	-2	20	
methylene chloride	.30372	.31009	.1	-2	20	
carbon disulfide	.91586	.69332	.1	24	20	F
methyl tert butyl ether	.51963	.48582	.1	7	20	
trans-1,2-dichloroethene	.34461	.34703	.1	-1	20	
Diisopropyl Ether	.81846	.76106	.05	7	20	
1,1-dichloroethane	.58497	.57703	.2	1	20	
Ethyl-Tert-Butyl-Ether	.7021	.59541	.05	15	20	
2-butanone	.05505	.04609	.1	16	20	F
2,2-dichloropropane	.38987	.33987	.05	13	20	
cis-1,2-dichloroethene	.36598	.37389	.1	-2	20	
chloroform	.55517	.56641	.2	-2	20	
bromochloromethane	.13826	.15165	.05	-10	20	
tetrahydrofuran	100	87.174	.05	13	20	
1,1,1-trichloroethane	.50175	.49407	.1	2	20	
1,1-dichloropropene	.47777	.47861	.05	0	20	
carbontetrachloride	.40299	.39681	.1	2	20	
Tertiary-Amyl Methyl Ether	.59124	.50762	.05	14	20	
1,2-dichloroethane	.29658	.32152	.1	-8	20	
benzene	1.4222	1.3961	.5	2	20	
trichloroethene	.35492	.36727	.2	-3	20	
1,2-dichloropropane	.31236	.28766	.1	8	20	
bromodichloromethane	.34843	.35418	.2	-2	20	
1,4-dioxane	.00121	.00123	.05	-2	20	F
dibromomethane	.12614	.13686	.05	-9	20	
4-methyl-2-pentanone	.05144	.04317	.1	16	20	F
cis-1,3-dichloropropene	.449	.36846	.2	18	20	
toluene	1.1887	1.0795	.4	9	20	
trans-1,3-dichloropropene	.40626	.30726	.1	24	20	F
1,1,2-trichloroethane	.18806	.17787	.1	5	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 11-APR-2011 Time: 08:12

Lab File ID: 0411A03 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
2-hexanone	.10447	.07926	.1	24	20	F
1,3-dichloropropane	.41055	.40054	.05	2	20	
tetrachloroethene	.54918	.54298	.2	1	20	
chlorodibromomethane	.26275	.25783	.1	2	20	
1,2-dibromoethane	.21528	.20993	.1	2	20	
chlorobenzene	1.3469	1.1966	.5	11	20	
1,1,1,2-tetrachloroethane	.39146	.34246	.05	13	20	
ethyl benzene	2.4104	2.1726	.1	10	20	
p/m xylene	.97612	.88113	.1	10	20	
o xylene	.96041	.83784	.3	13	20	
styrene	1.5385	1.3991	.31	9	20	
isopropylbenzene	2.4862	2.1069	.1	15	20	
bromoform	.23103	.23456	.1	-2	20	
1,1,2,2,-tetrachloroethane	.38882	.38107	.3	2	20	
1,2,3-trichloropropane	.302	.3032	.05	0	20	
n-propylbenzene	4.2789	3.6975	.05	14	20	
bromobenzene	.85391	.85734	.05	0	20	
1,3,5-trimethybenzene	3.1161	2.6157	.05	16	20	
2-chlorotoluene	2.8216	2.5152	.05	11	20	
4-chorotoluene	2.6385	2.4075	.05	9	20	
tert-butylbenzene	2.7401	2.2895	.05	16	20	
1,2,4-trimethylbenzene	3.1459	2.7306	.05	13	20	
sec-butylbenzene	3.7202	3.0308	.05	19	20	
p-isopropyltoluene	3.1690	2.7367	.05	14	20	
1,3-dichlorobenzene	1.7564	1.6242	.6	8	20	
1,4-dichlorobenzene	1.7757	1.6567	.5	7	20	
n-butylbenzene	3.0962	2.4877	.05	20	20	
1,2-dichlorobenzene	1.4995	1.4422	.4	4	20	
1,2-dibromo-3-chloropropane	.05659	.05106	.05	10	20	
1,2,4-trichlorobenzene	.83258	.72462	.2	13	20	
hexachlorobutadiene	.4051	.36687	.05	9	20	
naphthalene	1.3212	1.0314	.05	22	20	F
1,2,3-trichlorobenzene	.61394	.52103	.05	15	20	
dibromofluoromethane	.23183	.24387	.05	-5	20	
1,2-dichloroethane-d4	.19112	.20002	.05	-5	20	
toluene-d8	1.2966	1.2558	.05	3	20	
4-bromofluorobenzene	.84277	.81843	.05	3	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 08-APR-2011 Time: 05:41

Lab File ID: 0408A03 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.34924	.25614	.1	27	20	F
chloromethane	.35628	.28958	.1	19	20	
vinyl chloride	.30181	.29149	.1	3	20	
bromomethane	.22898	.15543	.1	32	20	F
chloroethane	.20794	.21332	.1	-3	20	
trichlorofluoromethane	.42568	.50993	.1	-20	20	
ethyl ether	.12007	.12756	.05	-6	20	
acrolien	.02445	.02327	.05	5	20	F
freon-113	.29194	.25061	.1	14	20	
acetone	100	98.083	.1	2	20	
1,1,-dichloroethene	.30271	.3177	.1	-5	20	
tert-butyl alcohol	.00951	.00756	.05	20	20	F
iodomethane	.50617	.40107	.05	21	20	F
methylene chloride	.30372	.31396	.1	-3	20	
carbon disulfide	.91586	.86178	.1	6	20	
acrylonitrile	.0487	.04675	.05	4	20	F
methyl tert butyl ether	.51963	.4952	.1	5	20	
Halothane	.25477	.25387	.05	0	20	
trans-1,2-dichloroethene	.34461	.34998	.1	-2	20	
Diisopropyl Ether	.81846	.77081	.05	6	20	
vinyl acetate	.38582	.36843	.05	5	20	
1,1-dichloroethane	.58497	.58479	.2	0	20	
Ethyl-Tert-Butyl-Ether	.7021	.62012	.05	12	20	
2-butanone	.05505	.04775	.1	13	20	F
2,2-dichloropropane	.38987	.34004	.05	13	20	
ethyl acetate	.11173	.09457	.05	15	20	
cis-1,2-dichloroethene	.36598	.39127	.1	-7	20	
chloroform	.55517	.57489	.2	-4	20	
bromochloromethane	.13826	.15054	.05	-9	20	
tetrahydrofuran	100	95.023	.05	5	20	
1,1,1-trichloroethane	.50175	.48178	.1	4	20	
1,1-dichloropropene	.47777	.48011	.05	0	20	
carbontetrachloride	.40299	.37583	.1	7	20	
Tertiary-Amyl Methyl Ether	.59124	.52414	.05	11	20	
1,2-dichloroethane	.29658	.31265	.1	-5	20	
benzene	1.4222	1.4243	.5	0	20	
trichloroethene	.35492	.36277	.2	-2	20	
1,2-dichloropropane	.31236	.30168	.1	3	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 08-APR-2011 Time: 05:41

Lab File ID: 0408A03 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
bromodichloromethane	.34843	.3437	.2	1	20	
1,4-dioxane	.00121	.00139	.05	-14	20	F
dibromomethane	.12614	.12872	.05	-2	20	
2-chloroethylvinyl ether	.10568	.07853	.05	26	20	F
4-methyl-2-pentanone	.05144	.04568	.1	11	20	F
cis-1,3-dichloropropene	.449	.36655	.2	18	20	
toluene	1.1887	1.1329	.4	5	20	
trans-1,3-dichloropropene	.40626	.30863	.1	24	20	F
1,1,2-trichloroethane	.18806	.18013	.1	4	20	
2-hexanone	.10447	.08562	.1	18	20	
1,3-dichloropropane	.41055	.40068	.05	2	20	
tetrachloroethene	.54918	.56541	.2	-3	20	
chlorodibromomethane	.26275	.25032	.1	5	20	
1,2-dibromoethane	.21528	.20705	.1	4	20	
chlorobenzene	1.3469	1.2374	.5	8	20	
1,1,1,2-tetrachloroethane	.39146	.34261	.05	12	20	
ethyl benzene	2.4104	2.2863	.1	5	20	
p/m xylene	.97612	.93241	.1	4	20	
o xylene	.96041	.90296	.3	6	20	
styrene	1.5385	1.4767	.31	4	20	
isopropylbenzene	2.4862	2.2873	.1	8	20	
trans-1,4-dichloro-2-butene	.03888	.03802	.05	2	20	F
bromoform	.23103	.22064	.1	5	20	
1,1,2,2,-tetrachloroethane	.38882	.39227	.3	-1	20	
1,2,3-trichloropropane	.302	.30305	.05	0	20	
n-propylbenzene	4.2789	4.1235	.05	4	20	
bromobenzene	.85391	.89606	.05	-5	20	
4-ethyltoluene	2.1733	1.8324	.05	16	20	
1,3,5-trimethybenzene	3.1161	2.8671	.05	8	20	
2-chlorotoluene	2.8216	2.7558	.05	2	20	
4-chorotoluene	2.6385	2.6115	.05	1	20	
tert-butylbenzene	2.7401	2.5567	.05	7	20	
1,2,4-trimethylbenzene	3.1459	2.9953	.05	5	20	
sec-butylbenzene	3.7202	3.4621	.05	7	20	
p-isopropyltoluene	3.1690	3.0305	.05	4	20	
1,3-dichlorobenzene	1.7564	1.7311	.6	1	20	
1,4-dichlorobenzene	1.7757	1.7649	.5	1	20	
n-butylbenzene	3.0962	2.7697	.05	11	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1104558

Instrument ID: Quimby.i Calibration Date: 08-APR-2011 Time: 05:41

Lab File ID: 0408A03 Init. Calib. Date(s): 07-MAR-2 07-MAR-2

Sample No: 8260 CCAL Init. Calib. Times : 08:32 12:13

Compound	RRF	RRF	MIN RRF	%D	MAX %D
1,2,4,5-tetramathylbenezene	1.0900	.91535	.05	16	20
1,2-dichlorobenzene	1.4995	1.5018	.4	0	20
p-diethylbenzene	1.5484	1.3278	.05	14	20
1,2-dibromo-3-chloropropane	.05659	.05053	.05	11	20
1,3,5-trichlorobenzene	1.0666	.91426	.01	14	30
1,2,4-trichlorobenzene	.83258	.7538	.2	9	20
hexachlorobutadiene	.4051	.3705	.05	9	20
naphthalene	1.3212	1.1451	.05	13	20
1,2,3-trichlorobenzene	.61394	.53533	.05	13	20
dibromofluoromethane	.23183	.2374	.05	-2	20
1,2-dichloroethane-d4	.19112	.1921	.05	-1	20
toluene-d8	1.2966	1.2670	.05	2	20
4-bromofluorobenzene	.84277	.83639	.05	1	20

FORM VII MCP-8260-10