

18 September 2008  
Reference: 0079387

Ms. Paula Phillips  
Congress Group  
33 Arch Street  
Boston, MA 02110

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



Dear Ms. Phillips:

On behalf of Raytheon Company (Raytheon), Environmental Resources Management (ERM) is submitting the results of environmental sample analyses from 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).

Twenty soil samples were collected for waste characterization purposes from drill cuttings generated during installation of the nine injection wells and one monitoring well between 12 and 15 August 2008. These samples were analyzed for volatile organic compounds (VOCs).

Groundwater samples were collected from three of the injection wells and the monitoring well (IW-2, IW-5, IW-8, and MW-560) on 25 August 2008. These samples were analyzed for VOCs, total organic carbon, total phosphorus, dissolved iron, sulfate, nitrogen as nitrate, and dissolved ethane, ethene, and methane gases. Sample analyses were conducted by Alpha Woods Hole Laboratories of Westborough, Massachusetts and Microseeps, Inc. of Pittsburgh, Pennsylvania. This 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 MCP 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](http://www.ermne.com) (username = raytheon, password = wayland).

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

Sincerely,



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



Jason D. Flattery  
Project Manager

encl: BWSC-123 - Notice of Environmental Sampling  
Analytical Laboratory Reports

cc: 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**      **22408**

**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: Congress Group  
2. Street Address: 33 Arch Street  
City/Town: Boston Zip Code: 02110

**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:

- |   |   |
|---|---|
| <input type="checkbox"/> Immediate Response Action              | <input type="checkbox"/> Phase III Feasibility Evaluation                   |
| <input type="checkbox"/> Release Abatement Measure              | <input checked="" type="checkbox"/> Phase IV Remedy Implementation Plan     |
| <input type="checkbox"/> Utility-related Abatement Measure      | <input type="checkbox"/> Phase V/Remedy Operation Status                    |
| <input type="checkbox"/> Phase I Initial Site Investigation     | <input type="checkbox"/> Post-Class C Operation, Maintenance and Monitoring |
| <input type="checkbox"/> Phase II Comprehensive Site Assessment | <input type="checkbox"/> Other _____  |
- (specify)

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

- residential     commercial     industrial     school/playground     Other \_\_\_\_\_
- (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater) 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, MS 2-2124-01  
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:	L0811820
Client:	ERM-New England 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Project Name:	RAYTHEON-WAYLAND
Project Number:	0079387
Report Date:	08/15/08

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.

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



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0811820-01	IW-01-A-20080812-01	WAYLAND, MA
L0811820-02	IW-01-B-20080812-01	WAYLAND, MA
L0811820-03	IW-02-A-20080812-01	WAYLAND, MA
L0811820-04	IW-02-B-20080812-01	WAYLAND, MA
L0811820-05	IW-03-B-20080812-01	WAYLAND, MA
L0811820-06	TB-001-20080812-01	WAYLAND, MA
L0811820-07	TB-002-20080812-01	WAYLAND, MA

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

### 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, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	N/A
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	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:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

### 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.

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.

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.

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#### MCP Related Narratives

##### Volatile Organics

L0811820-03: The Acetone concentration should be considered estimated because it exceeded the level of calibration. This analyte was not present in high level soil screen analysis.

In reference to question E:

The surrogate recovery for L0811820-01 and -02 is below the acceptance criteria for Dibromofluoromethane (5% and 4%, respectively), due to the basic nature of these samples (pH = 12).

The WG332606-2 LCSD recovery, associated with L0811820-01 through -06, is below the acceptance criteria for Dichlorodifluoromethane (64%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported; however, all results are considered to have a potentially low bias for this compound.

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:



Title: Technical Director/Representative

Date: 08/15/08



# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-01  
 Client ID: IW-01-A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/14/08 12:22  
 Analyst: PD  
 Percent Solids: 66%

Date Collected: 08/12/08 09:00  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	14	1
1,1-Dichloroethane	ND		ug/kg	2.1	1
Chloroform	ND		ug/kg	2.1	1
Carbon tetrachloride	ND		ug/kg	1.4	1
1,2-Dichloropropane	ND		ug/kg	5.0	1
Dibromochloromethane	ND		ug/kg	1.4	1
1,1,2-Trichloroethane	ND		ug/kg	2.1	1
Tetrachloroethene	ND		ug/kg	1.4	1
Chlorobenzene	ND		ug/kg	1.4	1
Trichlorofluoromethane	ND		ug/kg	7.1	1
1,2-Dichloroethane	ND		ug/kg	1.4	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	1
Bromodichloromethane	ND		ug/kg	1.4	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	1
1,1-Dichloropropene	ND		ug/kg	7.1	1
Bromoform	ND		ug/kg	5.7	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	1
Benzene	ND		ug/kg	1.4	1
Toluene	ND		ug/kg	2.1	1
Ethylbenzene	ND		ug/kg	1.4	1
Chloromethane	ND		ug/kg	7.1	1
Bromomethane	ND		ug/kg	2.8	1
Vinyl chloride	ND		ug/kg	2.8	1
Chloroethane	ND		ug/kg	2.8	1
1,1-Dichloroethene	ND		ug/kg	1.4	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	1
Trichloroethene	ND		ug/kg	1.4	1
1,2-Dichlorobenzene	ND		ug/kg	7.1	1
1,3-Dichlorobenzene	ND		ug/kg	7.1	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-01

Date Collected: 08/12/08 09:00

Client ID: IW-01-A-20080812-01

Date Received: 08/12/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	7.1	1
Methyl tert butyl ether	ND		ug/kg	2.8	1
p/m-Xylene	ND		ug/kg	2.8	1
o-Xylene	ND		ug/kg	2.8	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	1
Dibromomethane	ND		ug/kg	14	1
1,2,3-Trichloropropane	ND		ug/kg	14	1
Styrene	ND		ug/kg	2.8	1
Dichlorodifluoromethane	ND		ug/kg	14	1
Acetone	57		ug/kg	14	1
Carbon disulfide	ND		ug/kg	71	1
2-Butanone	ND		ug/kg	14	1
4-Methyl-2-pentanone	ND		ug/kg	14	1
2-Hexanone	ND		ug/kg	14	1
Bromochloromethane	ND		ug/kg	7.1	1
Tetrahydrofuran	ND		ug/kg	28	1
2,2-Dichloropropane	ND		ug/kg	7.1	1
1,2-Dibromoethane	ND		ug/kg	5.7	1
1,3-Dichloropropane	ND		ug/kg	7.1	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	1
Bromobenzene	ND		ug/kg	7.1	1
n-Butylbenzene	ND		ug/kg	1.4	1
sec-Butylbenzene	ND		ug/kg	1.4	1
tert-Butylbenzene	ND		ug/kg	7.1	1
o-Chlorotoluene	ND		ug/kg	7.1	1
p-Chlorotoluene	ND		ug/kg	7.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.1	1
Hexachlorobutadiene	ND		ug/kg	7.1	1
Isopropylbenzene	ND		ug/kg	1.4	1
p-Isopropyltoluene	3.1		ug/kg	1.4	1
Naphthalene	ND		ug/kg	7.1	1
n-Propylbenzene	ND		ug/kg	1.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.1	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.1	1
Ethyl ether	ND		ug/kg	7.1	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-01  
 Client ID: IW-01-A-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:00  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.7	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.7	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.7	1
1,4-Dioxane	ND		ug/kg	710	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	5		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-02  
 Client ID: IW-01-B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/14/08 12:59  
 Analyst: PD  
 Percent Solids: 66%

Date Collected: 08/12/08 09:10  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	14	1
1,1-Dichloroethane	ND		ug/kg	2.2	1
Chloroform	ND		ug/kg	2.2	1
Carbon tetrachloride	ND		ug/kg	1.4	1
1,2-Dichloropropane	ND		ug/kg	5.1	1
Dibromochloromethane	ND		ug/kg	1.4	1
1,1,2-Trichloroethane	ND		ug/kg	2.2	1
Tetrachloroethene	ND		ug/kg	1.4	1
Chlorobenzene	ND		ug/kg	1.4	1
Trichlorofluoromethane	ND		ug/kg	7.3	1
1,2-Dichloroethane	ND		ug/kg	1.4	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	1
Bromodichloromethane	ND		ug/kg	1.4	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	1
1,1-Dichloropropene	ND		ug/kg	7.3	1
Bromoform	ND		ug/kg	5.8	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	1
Benzene	ND		ug/kg	1.4	1
Toluene	ND		ug/kg	2.2	1
Ethylbenzene	ND		ug/kg	1.4	1
Chloromethane	ND		ug/kg	7.3	1
Bromomethane	ND		ug/kg	2.9	1
Vinyl chloride	ND		ug/kg	2.9	1
Chloroethane	ND		ug/kg	2.9	1
1,1-Dichloroethene	ND		ug/kg	1.4	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	1
Trichloroethene	1.6		ug/kg	1.4	1
1,2-Dichlorobenzene	ND		ug/kg	7.3	1
1,3-Dichlorobenzene	ND		ug/kg	7.3	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-02  
 Client ID: IW-01-B-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:10  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	7.3	1
Methyl tert butyl ether	ND		ug/kg	2.9	1
p/m-Xylene	ND		ug/kg	2.9	1
o-Xylene	ND		ug/kg	2.9	1
cis-1,2-Dichloroethene	1.7		ug/kg	1.4	1
Dibromomethane	ND		ug/kg	14	1
1,2,3-Trichloropropane	ND		ug/kg	14	1
Styrene	ND		ug/kg	2.9	1
Dichlorodifluoromethane	ND		ug/kg	14	1
Acetone	58		ug/kg	14	1
Carbon disulfide	ND		ug/kg	73	1
2-Butanone	ND		ug/kg	14	1
4-Methyl-2-pentanone	ND		ug/kg	14	1
2-Hexanone	ND		ug/kg	14	1
Bromochloromethane	ND		ug/kg	7.3	1
Tetrahydrofuran	ND		ug/kg	29	1
2,2-Dichloropropane	ND		ug/kg	7.3	1
1,2-Dibromoethane	ND		ug/kg	5.8	1
1,3-Dichloropropane	ND		ug/kg	7.3	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	1
Bromobenzene	ND		ug/kg	7.3	1
n-Butylbenzene	ND		ug/kg	1.4	1
sec-Butylbenzene	ND		ug/kg	1.4	1
tert-Butylbenzene	ND		ug/kg	7.3	1
o-Chlorotoluene	ND		ug/kg	7.3	1
p-Chlorotoluene	ND		ug/kg	7.3	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.3	1
Hexachlorobutadiene	ND		ug/kg	7.3	1
Isopropylbenzene	ND		ug/kg	1.4	1
p-Isopropyltoluene	2.2		ug/kg	1.4	1
Naphthalene	ND		ug/kg	7.3	1
n-Propylbenzene	ND		ug/kg	1.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.3	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.3	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.3	1
Ethyl ether	ND		ug/kg	7.3	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-02

Date Collected: 08/12/08 09:10

Client ID: IW-01-B-20080812-01

Date Received: 08/12/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.8	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.8	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.8	1
1,4-Dioxane	ND		ug/kg	730	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	4		70-130



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-03  
 Client ID: IW-02-A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/14/08 13:36  
 Analyst: PD  
 Percent Solids: 72%

Date Collected: 08/12/08 09:15  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	12	1
1,1-Dichloroethane	ND		ug/kg	1.8	1
Chloroform	ND		ug/kg	1.8	1
Carbon tetrachloride	ND		ug/kg	1.2	1
1,2-Dichloropropane	ND		ug/kg	4.3	1
Dibromochloromethane	ND		ug/kg	1.2	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	1
Tetrachloroethene	ND		ug/kg	1.2	1
Chlorobenzene	ND		ug/kg	1.2	1
Trichlorofluoromethane	ND		ug/kg	6.1	1
1,2-Dichloroethane	ND		ug/kg	1.2	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	1
Bromodichloromethane	ND		ug/kg	1.2	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	1
1,1-Dichloropropene	ND		ug/kg	6.1	1
Bromoform	ND		ug/kg	4.9	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	1
Benzene	ND		ug/kg	1.2	1
Toluene	ND		ug/kg	1.8	1
Ethylbenzene	ND		ug/kg	1.2	1
Chloromethane	ND		ug/kg	6.1	1
Bromomethane	ND		ug/kg	2.4	1
Vinyl chloride	ND		ug/kg	2.4	1
Chloroethane	ND		ug/kg	2.4	1
1,1-Dichloroethene	ND		ug/kg	1.2	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	1
Trichloroethene	ND		ug/kg	1.2	1
1,2-Dichlorobenzene	ND		ug/kg	6.1	1
1,3-Dichlorobenzene	ND		ug/kg	6.1	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-03  
 Client ID: IW-02-A-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:15  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.1	1
Methyl tert butyl ether	ND		ug/kg	2.4	1
p/m-Xylene	ND		ug/kg	2.4	1
o-Xylene	ND		ug/kg	2.4	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	1
Dibromomethane	ND		ug/kg	12	1
1,2,3-Trichloropropane	ND		ug/kg	12	1
Styrene	ND		ug/kg	2.4	1
Dichlorodifluoromethane	ND		ug/kg	12	1
Acetone	290	E	ug/kg	12	1
Carbon disulfide	ND		ug/kg	61	1
2-Butanone	ND		ug/kg	12	1
4-Methyl-2-pentanone	ND		ug/kg	12	1
2-Hexanone	ND		ug/kg	12	1
Bromochloromethane	ND		ug/kg	6.1	1
Tetrahydrofuran	ND		ug/kg	24	1
2,2-Dichloropropane	ND		ug/kg	6.1	1
1,2-Dibromoethane	ND		ug/kg	4.9	1
1,3-Dichloropropane	ND		ug/kg	6.1	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	1
Bromobenzene	ND		ug/kg	6.1	1
n-Butylbenzene	ND		ug/kg	1.2	1
sec-Butylbenzene	ND		ug/kg	1.2	1
tert-Butylbenzene	ND		ug/kg	6.1	1
o-Chlorotoluene	ND		ug/kg	6.1	1
p-Chlorotoluene	ND		ug/kg	6.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	1
Hexachlorobutadiene	ND		ug/kg	6.1	1
Isopropylbenzene	ND		ug/kg	1.2	1
p-Isopropyltoluene	12		ug/kg	1.2	1
Naphthalene	ND		ug/kg	6.1	1
n-Propylbenzene	ND		ug/kg	1.2	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.1	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.1	1
Ethyl ether	ND		ug/kg	6.1	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-03  
 Client ID: IW-02-A-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:15  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.9	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.9	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.9	1
1,4-Dioxane	ND		ug/kg	610	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	124		70-130
Dibromofluoromethane	103		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-04  
 Client ID: IW-02-B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/14/08 14:13  
 Analyst: PD  
 Percent Solids: 74%

Date Collected: 08/12/08 09:20  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	9.1	1
1,1-Dichloroethane	ND		ug/kg	1.4	1
Chloroform	ND		ug/kg	1.4	1
Carbon tetrachloride	ND		ug/kg	0.91	1
1,2-Dichloropropane	ND		ug/kg	3.2	1
Dibromochloromethane	ND		ug/kg	0.91	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	1
Tetrachloroethene	ND		ug/kg	0.91	1
Chlorobenzene	ND		ug/kg	0.91	1
Trichlorofluoromethane	ND		ug/kg	4.6	1
1,2-Dichloroethane	ND		ug/kg	0.91	1
1,1,1-Trichloroethane	ND		ug/kg	0.91	1
Bromodichloromethane	ND		ug/kg	0.91	1
trans-1,3-Dichloropropene	ND		ug/kg	0.91	1
cis-1,3-Dichloropropene	ND		ug/kg	0.91	1
1,1-Dichloropropene	ND		ug/kg	4.6	1
Bromoform	ND		ug/kg	3.6	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.91	1
Benzene	ND		ug/kg	0.91	1
Toluene	ND		ug/kg	1.4	1
Ethylbenzene	ND		ug/kg	0.91	1
Chloromethane	ND		ug/kg	4.6	1
Bromomethane	ND		ug/kg	1.8	1
Vinyl chloride	ND		ug/kg	1.8	1
Chloroethane	ND		ug/kg	1.8	1
1,1-Dichloroethene	ND		ug/kg	0.91	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	1
Trichloroethene	ND		ug/kg	0.91	1
1,2-Dichlorobenzene	ND		ug/kg	4.6	1
1,3-Dichlorobenzene	ND		ug/kg	4.6	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-04

Date Collected: 08/12/08 09:20

Client ID: IW-02-B-20080812-01

Date Received: 08/12/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	4.6	1
Methyl tert butyl ether	ND		ug/kg	1.8	1
p/m-Xylene	ND		ug/kg	1.8	1
o-Xylene	ND		ug/kg	1.8	1
cis-1,2-Dichloroethene	ND		ug/kg	0.91	1
Dibromomethane	ND		ug/kg	9.1	1
1,2,3-Trichloropropane	ND		ug/kg	9.1	1
Styrene	ND		ug/kg	1.8	1
Dichlorodifluoromethane	ND		ug/kg	9.1	1
Acetone	62		ug/kg	9.1	1
Carbon disulfide	ND		ug/kg	46	1
2-Butanone	ND		ug/kg	9.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.1	1
2-Hexanone	ND		ug/kg	9.1	1
Bromochloromethane	ND		ug/kg	4.6	1
Tetrahydrofuran	ND		ug/kg	18	1
2,2-Dichloropropane	ND		ug/kg	4.6	1
1,2-Dibromoethane	ND		ug/kg	3.6	1
1,3-Dichloropropane	ND		ug/kg	4.6	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.91	1
Bromobenzene	ND		ug/kg	4.6	1
n-Butylbenzene	ND		ug/kg	0.91	1
sec-Butylbenzene	ND		ug/kg	0.91	1
tert-Butylbenzene	ND		ug/kg	4.6	1
o-Chlorotoluene	ND		ug/kg	4.6	1
p-Chlorotoluene	ND		ug/kg	4.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.6	1
Hexachlorobutadiene	ND		ug/kg	4.6	1
Isopropylbenzene	ND		ug/kg	0.91	1
p-Isopropyltoluene	ND		ug/kg	0.91	1
Naphthalene	ND		ug/kg	4.6	1
n-Propylbenzene	ND		ug/kg	0.91	1
1,2,3-Trichlorobenzene	ND		ug/kg	4.6	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	4.6	1
Ethyl ether	ND		ug/kg	4.6	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-04

Date Collected: 08/12/08 09:20

Client ID: IW-02-B-20080812-01

Date Received: 08/12/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	3.6	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	3.6	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	3.6	1
1,4-Dioxane	ND		ug/kg	460	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	93		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-05  
 Client ID: IW-03-B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/14/08 14:50  
 Analyst: PD  
 Percent Solids: 68%

Date Collected: 08/12/08 09:40  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	17	1
1,1-Dichloroethane	ND		ug/kg	2.5	1
Chloroform	ND		ug/kg	2.5	1
Carbon tetrachloride	ND		ug/kg	1.7	1
1,2-Dichloropropane	ND		ug/kg	5.8	1
Dibromochloromethane	ND		ug/kg	1.7	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	1
Tetrachloroethene	1.7		ug/kg	1.7	1
Chlorobenzene	ND		ug/kg	1.7	1
Trichlorofluoromethane	ND		ug/kg	8.4	1
1,2-Dichloroethane	ND		ug/kg	1.7	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	1
Bromodichloromethane	ND		ug/kg	1.7	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	1
1,1-Dichloropropene	ND		ug/kg	8.4	1
Bromoform	ND		ug/kg	6.7	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	1
Benzene	ND		ug/kg	1.7	1
Toluene	ND		ug/kg	2.5	1
Ethylbenzene	ND		ug/kg	1.7	1
Chloromethane	ND		ug/kg	8.4	1
Bromomethane	ND		ug/kg	3.3	1
Vinyl chloride	ND		ug/kg	3.3	1
Chloroethane	ND		ug/kg	3.3	1
1,1-Dichloroethene	ND		ug/kg	1.7	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	1
Trichloroethene	81		ug/kg	1.7	1
1,2-Dichlorobenzene	ND		ug/kg	8.4	1
1,3-Dichlorobenzene	ND		ug/kg	8.4	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-05  
 Client ID: IW-03-B-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:40  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	8.4	1
Methyl tert butyl ether	ND		ug/kg	3.3	1
p/m-Xylene	ND		ug/kg	3.3	1
o-Xylene	ND		ug/kg	3.3	1
cis-1,2-Dichloroethene	2.1		ug/kg	1.7	1
Dibromomethane	ND		ug/kg	17	1
1,2,3-Trichloropropane	ND		ug/kg	17	1
Styrene	ND		ug/kg	3.3	1
Dichlorodifluoromethane	ND		ug/kg	17	1
Acetone	45		ug/kg	17	1
Carbon disulfide	ND		ug/kg	84	1
2-Butanone	ND		ug/kg	17	1
4-Methyl-2-pentanone	ND		ug/kg	17	1
2-Hexanone	ND		ug/kg	17	1
Bromochloromethane	ND		ug/kg	8.4	1
Tetrahydrofuran	ND		ug/kg	33	1
2,2-Dichloropropane	ND		ug/kg	8.4	1
1,2-Dibromoethane	ND		ug/kg	6.7	1
1,3-Dichloropropane	ND		ug/kg	8.4	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	1
Bromobenzene	ND		ug/kg	8.4	1
n-Butylbenzene	ND		ug/kg	1.7	1
sec-Butylbenzene	ND		ug/kg	1.7	1
tert-Butylbenzene	ND		ug/kg	8.4	1
o-Chlorotoluene	ND		ug/kg	8.4	1
p-Chlorotoluene	ND		ug/kg	8.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.4	1
Hexachlorobutadiene	ND		ug/kg	8.4	1
Isopropylbenzene	ND		ug/kg	1.7	1
p-Isopropyltoluene	1.9		ug/kg	1.7	1
Naphthalene	ND		ug/kg	8.4	1
n-Propylbenzene	ND		ug/kg	1.7	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.4	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.4	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.4	1
Ethyl ether	ND		ug/kg	8.4	1



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-05  
 Client ID: IW-03-B-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/12/08 09:40  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	6.7	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	6.7	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	6.7	1
1,4-Dioxane	ND		ug/kg	840	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	120		70-130
Dibromofluoromethane	98		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID:	L0811820-06	Date Collected:	08/11/08 11:22
Client ID:	TB-001-20080812-01	Date Received:	08/12/08
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	60,8260B		
Analytical Date:	08/14/08 15:26		
Analyst:	PD		
Percent Solids:	Results are reported on an 'AS RECEIVED' basis.		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	10	1
1,1-Dichloroethane	ND		ug/kg	1.5	1
Chloroform	ND		ug/kg	1.5	1
Carbon tetrachloride	ND		ug/kg	1.0	1
1,2-Dichloropropane	ND		ug/kg	3.5	1
Dibromochloromethane	ND		ug/kg	1.0	1
1,1,1-Trichloroethane	ND		ug/kg	1.5	1
Tetrachloroethene	ND		ug/kg	1.0	1
Chlorobenzene	ND		ug/kg	1.0	1
Trichlorofluoromethane	ND		ug/kg	5.0	1
1,2-Dichloroethane	ND		ug/kg	1.0	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	1
Bromodichloromethane	ND		ug/kg	1.0	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	1
1,1-Dichloropropene	ND		ug/kg	5.0	1
Bromoform	ND		ug/kg	4.0	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	1
Benzene	ND		ug/kg	1.0	1
Toluene	ND		ug/kg	1.5	1
Ethylbenzene	ND		ug/kg	1.0	1
Chloromethane	ND		ug/kg	5.0	1
Bromomethane	ND		ug/kg	2.0	1
Vinyl chloride	ND		ug/kg	2.0	1
Chloroethane	ND		ug/kg	2.0	1
1,1-Dichloroethene	ND		ug/kg	1.0	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	1
Trichloroethene	ND		ug/kg	1.0	1
1,2-Dichlorobenzene	ND		ug/kg	5.0	1
1,3-Dichlorobenzene	ND		ug/kg	5.0	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-06  
 Client ID: TB-001-20080812-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/11/08 11:22  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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## Volatile Organics by MCP 8260B/5035-Soil Analysis

1,4-Dichlorobenzene	ND		ug/kg	5.0	1
Methyl tert butyl ether	ND		ug/kg	2.0	1
p/m-Xylene	ND		ug/kg	2.0	1
o-Xylene	ND		ug/kg	2.0	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	1
Dibromomethane	ND		ug/kg	10	1
1,2,3-Trichloropropane	ND		ug/kg	10	1
Styrene	ND		ug/kg	2.0	1
Dichlorodifluoromethane	ND		ug/kg	10	1
Acetone	ND		ug/kg	10	1
Carbon disulfide	ND		ug/kg	50	1
2-Butanone	ND		ug/kg	10	1
4-Methyl-2-pentanone	ND		ug/kg	10	1
2-Hexanone	ND		ug/kg	10	1
Bromochloromethane	ND		ug/kg	5.0	1
Tetrahydrofuran	ND		ug/kg	20	1
2,2-Dichloropropane	ND		ug/kg	5.0	1
1,2-Dibromoethane	ND		ug/kg	4.0	1
1,3-Dichloropropane	ND		ug/kg	5.0	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	1
Bromobenzene	ND		ug/kg	5.0	1
n-Butylbenzene	ND		ug/kg	1.0	1
sec-Butylbenzene	ND		ug/kg	1.0	1
tert-Butylbenzene	ND		ug/kg	5.0	1
o-Chlorotoluene	ND		ug/kg	5.0	1
p-Chlorotoluene	ND		ug/kg	5.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1
Hexachlorobutadiene	ND		ug/kg	5.0	1
Isopropylbenzene	ND		ug/kg	1.0	1
p-Isopropyltoluene	ND		ug/kg	1.0	1
Naphthalene	ND		ug/kg	5.0	1
n-Propylbenzene	ND		ug/kg	1.0	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	1
Ethyl ether	ND		ug/kg	5.0	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

Lab ID: L0811820-06

Date Collected: 08/11/08 11:22

Client ID: TB-001-20080812-01

Date Received: 08/12/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.0	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	1
1,4-Dioxane	ND		ug/kg	500	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	91		70-130

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/14/08 09:55  
Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332606-3				
Methylene chloride	ND		ug/kg	10
1,1-Dichloroethane	ND		ug/kg	1.5
Chloroform	ND		ug/kg	1.5
Carbon tetrachloride	ND		ug/kg	1.0
1,2-Dichloropropane	ND		ug/kg	3.5
Dibromochloromethane	ND		ug/kg	1.0
1,1,2-Trichloroethane	ND		ug/kg	1.5
Tetrachloroethene	ND		ug/kg	1.0
Chlorobenzene	ND		ug/kg	1.0
Trichlorofluoromethane	ND		ug/kg	5.0
1,2-Dichloroethane	ND		ug/kg	1.0
1,1,1-Trichloroethane	ND		ug/kg	1.0
Bromodichloromethane	ND		ug/kg	1.0
trans-1,3-Dichloropropene	ND		ug/kg	1.0
cis-1,3-Dichloropropene	ND		ug/kg	1.0
1,1-Dichloropropene	ND		ug/kg	5.0
Bromoform	ND		ug/kg	4.0
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0
Benzene	ND		ug/kg	1.0
Toluene	ND		ug/kg	1.5
Ethylbenzene	ND		ug/kg	1.0
Chloromethane	ND		ug/kg	5.0
Bromomethane	ND		ug/kg	2.0
Vinyl chloride	ND		ug/kg	2.0
Chloroethane	ND		ug/kg	2.0
1,1-Dichloroethene	ND		ug/kg	1.0
trans-1,2-Dichloroethene	ND		ug/kg	1.5
Trichloroethene	ND		ug/kg	1.0
1,2-Dichlorobenzene	ND		ug/kg	5.0
1,3-Dichlorobenzene	ND		ug/kg	5.0
1,4-Dichlorobenzene	ND		ug/kg	5.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/14/08 09:55  
Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332606-3				
Methyl tert butyl ether	ND		ug/kg	2.0
p/m-Xylene	ND		ug/kg	2.0
o-Xylene	ND		ug/kg	2.0
cis-1,2-Dichloroethene	ND		ug/kg	1.0
Dibromomethane	ND		ug/kg	10
1,2,3-Trichloropropane	ND		ug/kg	10
Styrene	ND		ug/kg	2.0
Dichlorodifluoromethane	ND		ug/kg	10
Acetone	ND		ug/kg	10
Carbon disulfide	ND		ug/kg	50
2-Butanone	ND		ug/kg	10
4-Methyl-2-pentanone	ND		ug/kg	10
2-Hexanone	ND		ug/kg	10
Bromochloromethane	ND		ug/kg	5.0
Tetrahydrofuran	ND		ug/kg	20
2,2-Dichloropropane	ND		ug/kg	5.0
1,2-Dibromoethane	ND		ug/kg	4.0
1,3-Dichloropropane	ND		ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0
Bromobenzene	ND		ug/kg	5.0
n-Butylbenzene	ND		ug/kg	1.0
sec-Butylbenzene	ND		ug/kg	1.0
tert-Butylbenzene	ND		ug/kg	5.0
o-Chlorotoluene	ND		ug/kg	5.0
p-Chlorotoluene	ND		ug/kg	5.0
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0
Hexachlorobutadiene	ND		ug/kg	5.0
Isopropylbenzene	ND		ug/kg	1.0
p-Isopropyltoluene	ND		ug/kg	1.0
Naphthalene	ND		ug/kg	5.0
n-Propylbenzene	ND		ug/kg	1.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/14/08 09:55  
Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332606-3				
1,2,3-Trichlorobenzene	ND		ug/kg	5.0
1,2,4-Trichlorobenzene	ND		ug/kg	5.0
1,3,5-Trimethylbenzene	ND		ug/kg	5.0
1,2,4-Trimethylbenzene	ND		ug/kg	5.0
Ethyl ether	ND		ug/kg	5.0
Isopropyl Ether	ND		ug/kg	4.0
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0
1,4-Dioxane	ND		ug/kg	500

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	100		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0811820

**Project Number:** 0079387

**Report Date:** 08/15/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332606-1 WG332606-2					
Methylene chloride	95	83	70-130	13	25
1,1-Dichloroethane	106	93	70-130	13	25
Chloroform	102	89	70-130	14	25
Carbon tetrachloride	85	78	70-130	9	25
1,2-Dichloropropane	104	92	70-130	12	25
Dibromochloromethane	87	78	70-130	11	25
1,1,2-Trichloroethane	108	94	70-130	14	25
Tetrachloroethene	96	85	70-130	12	25
Chlorobenzene	102	90	70-130	13	25
Trichlorofluoromethane	107	96	70-130	11	25
1,2-Dichloroethane	111	99	70-130	11	25
1,1,1-Trichloroethane	95	86	70-130	10	25
Bromodichloromethane	97	87	70-130	11	25
trans-1,3-Dichloropropene	97	85	70-130	13	25
cis-1,3-Dichloropropene	100	88	70-130	13	25
1,1-Dichloropropene	101	89	70-130	13	25
Bromoform	78	71	70-130	9	50
1,1,2,2-Tetrachloroethane	111	101	70-130	9	25
Benzene	99	86	70-130	14	25
Toluene	101	89	70-130	13	25
Ethylbenzene	106	94	70-130	12	25



## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332606-1 WG332606-2					
Chloromethane	89	81	70-130	9	50
Bromomethane	101	90	70-130	12	50
Vinyl chloride	100	90	70-130	11	25
Chloroethane	106	94	70-130	12	25
1,1-Dichloroethene	107	95	70-130	12	25
trans-1,2-Dichloroethene	97	86	70-130	12	25
Trichloroethene	95	83	70-130	13	25
1,2-Dichlorobenzene	102	90	70-130	13	25
1,3-Dichlorobenzene	103	90	70-130	13	25
1,4-Dichlorobenzene	104	92	70-130	12	25
Methyl tert butyl ether	92	81	70-130	13	25
p/m-Xylene	104	92	70-130	12	25
o-Xylene	100	89	70-130	12	25
cis-1,2-Dichloroethene	99	84	70-130	16	25
Dibromomethane	102	88	70-130	15	25
1,2,3-Trichloropropane	125	113	70-130	10	25
Styrene	101	90	70-130	12	25
Dichlorodifluoromethane	76	64	70-130	17	50
Acetone	104	98	70-130	6	50
Carbon disulfide	105	91	70-130	14	25
2-Butanone	112	101	70-130	10	50

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0811820

**Project Number:** 0079387

**Report Date:** 08/15/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332606-1 WG332606-2					
4-Methyl-2-pentanone	116	105	70-130	10	50
2-Hexanone	123	109	70-130	12	50
Bromochloromethane	97	86	70-130	12	25
Tetrahydrofuran	103	84	70-130	20	25
2,2-Dichloropropane	99	87	70-130	13	50
1,2-Dibromoethane	102	90	70-130	13	25
1,3-Dichloropropane	108	96	70-130	12	25
1,1,1,2-Tetrachloroethane	90	79	70-130	13	25
Bromobenzene	99	86	70-130	14	25
n-Butylbenzene	110	98	70-130	12	25
sec-Butylbenzene	109	96	70-130	13	25
tert-Butylbenzene	104	91	70-130	13	25
o-Chlorotoluene	109	95	70-130	14	25
p-Chlorotoluene	110	96	70-130	14	25
1,2-Dibromo-3-chloropropane	102	94	70-130	8	50
Hexachlorobutadiene	86	78	70-130	10	25
Isopropylbenzene	123	110	70-130	11	25
p-Isopropyltoluene	110	98	70-130	12	25
Naphthalene	94	89	70-130	5	25
n-Propylbenzene	112	98	70-130	13	25
1,2,3-Trichlorobenzene	98	89	70-130	10	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0811820

**Project Number:** 0079387

**Report Date:** 08/15/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332606-1 WG332606-2					
1,2,4-Trichlorobenzene	98	86	70-130	13	25
1,3,5-Trimethylbenzene	106	94	70-130	12	25
1,2,4-Trimethylbenzene	103	92	70-130	11	25
Ethyl ether	96	81	70-130	17	25
Isopropyl Ether	95	84	70-130	12	25
Ethyl-Tert-Butyl-Ether	93	82	70-130	13	25
Tertiary-Amyl Methyl Ether	86	77	70-130	11	25
1,4-Dioxane	102	95	70-130	7	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		104		70-130
Toluene-d8	102		100		70-130
4-Bromofluorobenzene	102		101		70-130
Dibromofluoromethane	97		96		70-130

# **INORGANICS & MISCELLANEOUS**

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-01  
 Client ID: IW-01-A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:00  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	66		%	0.10	1	-	08/12/08 16:25	30,2540G	NM



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811820**Project Number:** 0079387**Report Date:** 08/15/08**SAMPLE RESULTS**

**Lab ID:** L0811820-02  
**Client ID:** IW-01-B-20080812-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/12/08 09:10  
**Date Received:** 08/12/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	66		%	0.10	1	-	08/12/08 16:25	30,2540G	NM



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-03  
 Client ID: IW-02-A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:15  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	72		%	0.10	1	-	08/12/08 16:25	30,2540G	NM



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-04  
 Client ID: IW-02-B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:20  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	74		%	0.10	1	-	08/12/08 16:25	30,2540G	NM





Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## SAMPLE RESULTS

Lab ID: L0811820-05  
 Client ID: IW-03-B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:40  
 Date Received: 08/12/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	68		%	0.10	1	-	08/12/08 16:25	30,2540G	NM



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387

Lab Number: L0811820

Report Date: 08/15/08

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01-05 QC Batch ID: WG332279-1 QC Sample: L0811819-01 Client ID: DUP Sample					
Solids, Total	87	85	%	2	20

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811820

Project Number: 0079387

Report Date: 08/15/08

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information

Cooler	Custody Seal
A	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0811820-01A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-01B	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-01C	Plastic 2oz unpreserved for TS	A	N/A	2.4 c	Y	Absent	TS(7)
L0811820-02A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-02B	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-02C	Plastic 2oz unpreserved for TS	A	N/A	2.4 c	Y	Absent	TS(7)
L0811820-03A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-03B	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-03C	Plastic 2oz unpreserved for TS	A	N/A	2.4 c	Y	Absent	TS(7)
L0811820-04A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-04B	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-04C	Plastic 2oz unpreserved for TS	A	N/A	2.4 c	Y	Absent	TS(7)
L0811820-05A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-05B	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-05C	Plastic 2oz unpreserved for TS	A	N/A	2.4 c	Y	Absent	TS(7)
L0811820-06A	Vial water preserved	A	N/A	2.4 c	Y	Absent	MCP-8260HLW(14)
L0811820-07A	Vial MeOH preserved	A	N/A	2.4 c	Y	Absent	HOLD(14)

\*Hold days indicated by values in parentheses

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

## 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.  
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.  
NI - Not Ignitable.  
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.  
ND - Not detected at the reported detection limit for the sample.  
RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL 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

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

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.

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

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

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

Report Format: Not Specified



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811820  
**Report Date:** 08/15/08

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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.





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

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

# CHAIN OF CUSTODY

PAGE      OF     

### Project Information

Project Name: RAYNHAM-WAYLAND

Project Location: WAYLAND, MA

Project #: 0079387

Project Manager: JASON FANTELY

ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: 8/19 Time:

Other Project: Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: 8/12

### Report Information - Data Deliverables

FAX  EMAIL

ADEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State / Fed Program MCP/1331 Criteria

### MAMCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Are MCP Analytical Methods Required?  
 Yes  No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Job #: L0811820

### Billing Information

Same as Client info PO #:

ANALYSIS	RESULTS
VOL B260 HIGH	1
VOL B260 LOW	1
TOTAL SOLIDS	1

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	Container Type	Preservative	State / Fed Program	Criteria	Sample Specific Comments
1820.1	1W-01-A-200B0812-01	8/12/08	09:00	S	EW	EW	1			
2	1W-01-B-200B0812-01		09:10		EW	EW	1			
3	1W-02-A-200B0812-01		09:15		EW	EW	1			
4	1W-02-B-200B0812-01		09:20		EW	EW	1			
5	1W-03-A-200B0812-01		09:30		EW	EW	1			
6	1W-03-B-200B0812-01		09:40		EW	EW	1			
7	1W-04-A-200B0812-01		09:50		EW	EW	1			
8	1W-04-B-200B0812-01		10:00		EW	EW	1			
9	1W-05-A-200B0812-01		11:22		EW	EW	1			
10	1W-05-B-200B0812-01		11:35		EW	EW	1			

### PLEASE ANSWER QUESTIONS ABOVE!

Container Type	Preservative
V V P	F H <sub>2</sub> O A

### IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
<u>John Brown</u>	<u>8/12/08 12:00</u>	<u>John Brown</u>	<u>8/13/08 13:00</u>
			<u>8/12/13 11</u>

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 Payment Terms. See reverse side.



## ANALYTICAL REPORT

Lab Number:	L0811944
Client:	ERM-New England 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Project Name:	RAYTHEON-WAYLAND
Project Number:	0079387
Report Date:	08/20/08

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.

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



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0811944-01	IW-9A-20080813-01	WAYLAND, MA
L0811944-02	IW-6B-20080812-01	WAYLAND, MA
L0811944-03	IW-6A-20080812-01	WAYLAND, MA
L0811944-04	IW-3A-20080812-01	WAYLAND, MA
L0811944-05	IW-7A-20080812-01	WAYLAND, MA
L0811944-06	IW-7B-20080812-01	WAYLAND, MA
L0811944-07	IW-8A-20080812-01	WAYLAND, MA
L0811944-08	IW-8B-20080812-01	WAYLAND, MA
L0811944-09	IW-9B-20080813-01	WAYLAND, MA
L0811944-10	TB-001-20080813-01+TB-002-2008	WAYLAND, MA



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

### 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, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	N/A
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	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:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

### 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.

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.

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.

---

#### MCP Related Narratives:

##### Volatile Organics

L0811944-10 Trip Blank was analyzed as a methanol preserved high sample due to the water preserved sample having no internal standard or surrogate recoveries.

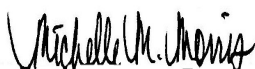
In reference to question E:

The surrogate recovery for L0811944-07 is above the acceptance criteria for 4-Bromofluorobenzene (133%). Since the sample was non-detect for all target analytes, re-analysis is not required.

The WG332718-2 LCSD recoveries associated with L0811944-01 through -09 were above the acceptance criteria for 1,2,3-Trichloropropane (137%) and Isopropylbenzene (136%); however, the associated samples were non-detect for these target compounds. The results of the original analysis are reported.

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:



Title: Technical Director/Representative

Date: 08/20/08

# ORGANICS

# VOLATILES

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-01  
 Client ID: IW-9A-20080813-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 12:13  
 Analyst: PD  
 Percent Solids: 84%

Date Collected: 08/13/08 10:30  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	11	1
1,1-Dichloroethane	ND		ug/kg	1.6	1
Chloroform	ND		ug/kg	1.6	1
Carbon tetrachloride	ND		ug/kg	1.1	1
1,2-Dichloropropane	ND		ug/kg	3.8	1
Dibromochloromethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.6	1
Tetrachloroethene	ND		ug/kg	1.1	1
Chlorobenzene	ND		ug/kg	1.1	1
Trichlorofluoromethane	ND		ug/kg	5.4	1
1,2-Dichloroethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	1
Bromodichloromethane	ND		ug/kg	1.1	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	1
1,1-Dichloropropene	ND		ug/kg	5.4	1
Bromoform	ND		ug/kg	4.3	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Benzene	ND		ug/kg	1.1	1
Toluene	ND		ug/kg	1.6	1
Ethylbenzene	ND		ug/kg	1.1	1
Chloromethane	ND		ug/kg	5.4	1
Bromomethane	ND		ug/kg	2.2	1
Vinyl chloride	ND		ug/kg	2.2	1
Chloroethane	ND		ug/kg	2.2	1
1,1-Dichloroethene	ND		ug/kg	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	1
Trichloroethene	ND		ug/kg	1.1	1
1,2-Dichlorobenzene	ND		ug/kg	5.4	1
1,3-Dichlorobenzene	ND		ug/kg	5.4	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-01

Date Collected: 08/13/08 10:30

Client ID: IW-9A-20080813-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.4	1
Methyl tert butyl ether	ND		ug/kg	2.2	1
p/m-Xylene	ND		ug/kg	2.2	1
o-Xylene	ND		ug/kg	2.2	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	1
Dibromomethane	ND		ug/kg	11	1
1,2,3-Trichloropropane	ND		ug/kg	11	1
Styrene	ND		ug/kg	2.2	1
Dichlorodifluoromethane	ND		ug/kg	11	1
Acetone	ND		ug/kg	11	1
Carbon disulfide	ND		ug/kg	54	1
2-Butanone	ND		ug/kg	11	1
4-Methyl-2-pentanone	ND		ug/kg	11	1
2-Hexanone	ND		ug/kg	11	1
Bromochloromethane	ND		ug/kg	5.4	1
Tetrahydrofuran	ND		ug/kg	22	1
2,2-Dichloropropane	ND		ug/kg	5.4	1
1,2-Dibromoethane	ND		ug/kg	4.3	1
1,3-Dichloropropane	ND		ug/kg	5.4	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Bromobenzene	ND		ug/kg	5.4	1
n-Butylbenzene	ND		ug/kg	1.1	1
sec-Butylbenzene	ND		ug/kg	1.1	1
tert-Butylbenzene	ND		ug/kg	5.4	1
o-Chlorotoluene	ND		ug/kg	5.4	1
p-Chlorotoluene	ND		ug/kg	5.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.4	1
Hexachlorobutadiene	ND		ug/kg	5.4	1
Isopropylbenzene	ND		ug/kg	1.1	1
p-Isopropyltoluene	ND		ug/kg	1.1	1
Naphthalene	ND		ug/kg	5.4	1
n-Propylbenzene	ND		ug/kg	1.1	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.4	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.4	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.4	1
Ethyl ether	ND		ug/kg	5.4	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-01

Date Collected: 08/13/08 10:30

Client ID: IW-9A-20080813-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.3	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.3	1
1,4-Dioxane	ND		ug/kg	540	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	119		70-130
Dibromofluoromethane	92		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-02  
 Client ID: IW-6B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 12:50  
 Analyst: PD  
 Percent Solids: 72%

Date Collected: 08/12/08 10:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	11	1
1,1-Dichloroethane	ND		ug/kg	1.6	1
Chloroform	ND		ug/kg	1.6	1
Carbon tetrachloride	ND		ug/kg	1.1	1
1,2-Dichloropropane	ND		ug/kg	3.7	1
Dibromochloromethane	ND		ug/kg	1.1	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	1
Tetrachloroethene	ND		ug/kg	1.1	1
Chlorobenzene	ND		ug/kg	1.1	1
Trichlorofluoromethane	ND		ug/kg	5.3	1
1,2-Dichloroethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	1
Bromodichloromethane	ND		ug/kg	1.1	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	1
1,1-Dichloropropene	ND		ug/kg	5.3	1
Bromoform	ND		ug/kg	4.3	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	1
Benzene	ND		ug/kg	1.1	1
Toluene	ND		ug/kg	1.6	1
Ethylbenzene	ND		ug/kg	1.1	1
Chloromethane	ND		ug/kg	5.3	1
Bromomethane	ND		ug/kg	2.1	1
Vinyl chloride	ND		ug/kg	2.1	1
Chloroethane	ND		ug/kg	2.1	1
1,1-Dichloroethene	ND		ug/kg	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	1
Trichloroethene	3.6		ug/kg	1.1	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	1
1,3-Dichlorobenzene	ND		ug/kg	5.3	1



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-02

Date Collected: 08/12/08 10:00

Client ID: IW-6B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.3	1
Methyl tert butyl ether	ND		ug/kg	2.1	1
p/m-Xylene	ND		ug/kg	2.1	1
o-Xylene	ND		ug/kg	2.1	1
cis-1,2-Dichloroethene	1.1		ug/kg	1.1	1
Dibromomethane	ND		ug/kg	11	1
1,2,3-Trichloropropane	ND		ug/kg	11	1
Styrene	ND		ug/kg	2.1	1
Dichlorodifluoromethane	ND		ug/kg	11	1
Acetone	16		ug/kg	11	1
Carbon disulfide	ND		ug/kg	53	1
2-Butanone	ND		ug/kg	11	1
4-Methyl-2-pentanone	ND		ug/kg	11	1
2-Hexanone	ND		ug/kg	11	1
Bromochloromethane	ND		ug/kg	5.3	1
Tetrahydrofuran	ND		ug/kg	21	1
2,2-Dichloropropane	ND		ug/kg	5.3	1
1,2-Dibromoethane	ND		ug/kg	4.3	1
1,3-Dichloropropane	ND		ug/kg	5.3	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Bromobenzene	ND		ug/kg	5.3	1
n-Butylbenzene	ND		ug/kg	1.1	1
sec-Butylbenzene	ND		ug/kg	1.1	1
tert-Butylbenzene	ND		ug/kg	5.3	1
o-Chlorotoluene	ND		ug/kg	5.3	1
p-Chlorotoluene	ND		ug/kg	5.3	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	1
Hexachlorobutadiene	ND		ug/kg	5.3	1
Isopropylbenzene	ND		ug/kg	1.1	1
p-Isopropyltoluene	ND		ug/kg	1.1	1
Naphthalene	ND		ug/kg	5.3	1
n-Propylbenzene	ND		ug/kg	1.1	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.3	1
Ethyl ether	ND		ug/kg	5.3	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-02

Date Collected: 08/12/08 10:00

Client ID: IW-6B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.3	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.3	1
1,4-Dioxane	ND		ug/kg	530	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	130		70-130
Toluene-d8	116		70-130
4-Bromofluorobenzene	130		70-130
Dibromofluoromethane	108		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-03  
 Client ID: IW-6A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 13:27  
 Analyst: PD  
 Percent Solids: 73%

Date Collected: 08/12/08 09:50  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	13	1
1,1-Dichloroethane	ND		ug/kg	1.9	1
Chloroform	ND		ug/kg	1.9	1
Carbon tetrachloride	ND		ug/kg	1.3	1
1,2-Dichloropropane	ND		ug/kg	4.5	1
Dibromochloromethane	ND		ug/kg	1.3	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	1
Tetrachloroethene	ND		ug/kg	1.3	1
Chlorobenzene	ND		ug/kg	1.3	1
Trichlorofluoromethane	ND		ug/kg	6.5	1
1,2-Dichloroethane	ND		ug/kg	1.3	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	1
Bromodichloromethane	ND		ug/kg	1.3	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	1
1,1-Dichloropropene	ND		ug/kg	6.5	1
Bromoform	ND		ug/kg	5.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	1
Benzene	ND		ug/kg	1.3	1
Toluene	ND		ug/kg	1.9	1
Ethylbenzene	ND		ug/kg	1.3	1
Chloromethane	ND		ug/kg	6.5	1
Bromomethane	ND		ug/kg	2.6	1
Vinyl chloride	ND		ug/kg	2.6	1
Chloroethane	ND		ug/kg	2.6	1
1,1-Dichloroethene	ND		ug/kg	1.3	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	1
Trichloroethene	1.9		ug/kg	1.3	1
1,2-Dichlorobenzene	ND		ug/kg	6.5	1
1,3-Dichlorobenzene	ND		ug/kg	6.5	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-03

Date Collected: 08/12/08 09:50

Client ID: IW-6A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.5	1
Methyl tert butyl ether	ND		ug/kg	2.6	1
p/m-Xylene	ND		ug/kg	2.6	1
o-Xylene	ND		ug/kg	2.6	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	1
Dibromomethane	ND		ug/kg	13	1
1,2,3-Trichloropropane	ND		ug/kg	13	1
Styrene	ND		ug/kg	2.6	1
Dichlorodifluoromethane	ND		ug/kg	13	1
Acetone	25		ug/kg	13	1
Carbon disulfide	ND		ug/kg	65	1
2-Butanone	ND		ug/kg	13	1
4-Methyl-2-pentanone	ND		ug/kg	13	1
2-Hexanone	ND		ug/kg	13	1
Bromochloromethane	ND		ug/kg	6.5	1
Tetrahydrofuran	ND		ug/kg	26	1
2,2-Dichloropropane	ND		ug/kg	6.5	1
1,2-Dibromoethane	ND		ug/kg	5.2	1
1,3-Dichloropropane	ND		ug/kg	6.5	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	1
Bromobenzene	ND		ug/kg	6.5	1
n-Butylbenzene	ND		ug/kg	1.3	1
sec-Butylbenzene	ND		ug/kg	1.3	1
tert-Butylbenzene	ND		ug/kg	6.5	1
o-Chlorotoluene	ND		ug/kg	6.5	1
p-Chlorotoluene	ND		ug/kg	6.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.5	1
Hexachlorobutadiene	ND		ug/kg	6.5	1
Isopropylbenzene	ND		ug/kg	1.3	1
p-Isopropyltoluene	ND		ug/kg	1.3	1
Naphthalene	ND		ug/kg	6.5	1
n-Propylbenzene	ND		ug/kg	1.3	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.5	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.5	1
Ethyl ether	ND		ug/kg	6.5	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-03

Date Collected: 08/12/08 09:50

Client ID: IW-6A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.2	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.2	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.2	1
1,4-Dioxane	ND		ug/kg	650	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	98		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-04  
 Client ID: IW-3A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 14:04  
 Analyst: PD  
 Percent Solids: 62%

Date Collected: 08/12/08 09:30  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	14	1
1,1-Dichloroethane	ND		ug/kg	2.1	1
Chloroform	ND		ug/kg	2.1	1
Carbon tetrachloride	ND		ug/kg	1.4	1
1,2-Dichloropropane	ND		ug/kg	5.0	1
Dibromochloromethane	ND		ug/kg	1.4	1
1,1,2-Trichloroethane	ND		ug/kg	2.1	1
Tetrachloroethene	1.8		ug/kg	1.4	1
Chlorobenzene	ND		ug/kg	1.4	1
Trichlorofluoromethane	ND		ug/kg	7.1	1
1,2-Dichloroethane	ND		ug/kg	1.4	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	1
Bromodichloromethane	ND		ug/kg	1.4	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	1
1,1-Dichloropropene	ND		ug/kg	7.1	1
Bromoform	ND		ug/kg	5.6	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	1
Benzene	ND		ug/kg	1.4	1
Toluene	ND		ug/kg	2.1	1
Ethylbenzene	ND		ug/kg	1.4	1
Chloromethane	ND		ug/kg	7.1	1
Bromomethane	ND		ug/kg	2.8	1
Vinyl chloride	ND		ug/kg	2.8	1
Chloroethane	ND		ug/kg	2.8	1
1,1-Dichloroethene	ND		ug/kg	1.4	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	1
Trichloroethene	95		ug/kg	1.4	1
1,2-Dichlorobenzene	ND		ug/kg	7.1	1
1,3-Dichlorobenzene	ND		ug/kg	7.1	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-04

Date Collected: 08/12/08 09:30

Client ID: IW-3A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	7.1	1
Methyl tert butyl ether	ND		ug/kg	2.8	1
p/m-Xylene	ND		ug/kg	2.8	1
o-Xylene	ND		ug/kg	2.8	1
cis-1,2-Dichloroethene	2.2		ug/kg	1.4	1
Dibromomethane	ND		ug/kg	14	1
1,2,3-Trichloropropane	ND		ug/kg	14	1
Styrene	ND		ug/kg	2.8	1
Dichlorodifluoromethane	ND		ug/kg	14	1
Acetone	61		ug/kg	14	1
Carbon disulfide	ND		ug/kg	71	1
2-Butanone	ND		ug/kg	14	1
4-Methyl-2-pentanone	ND		ug/kg	14	1
2-Hexanone	ND		ug/kg	14	1
Bromochloromethane	ND		ug/kg	7.1	1
Tetrahydrofuran	ND		ug/kg	28	1
2,2-Dichloropropane	ND		ug/kg	7.1	1
1,2-Dibromoethane	ND		ug/kg	5.6	1
1,3-Dichloropropane	ND		ug/kg	7.1	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	1
Bromobenzene	ND		ug/kg	7.1	1
n-Butylbenzene	ND		ug/kg	1.4	1
sec-Butylbenzene	ND		ug/kg	1.4	1
tert-Butylbenzene	ND		ug/kg	7.1	1
o-Chlorotoluene	ND		ug/kg	7.1	1
p-Chlorotoluene	ND		ug/kg	7.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.1	1
Hexachlorobutadiene	ND		ug/kg	7.1	1
Isopropylbenzene	ND		ug/kg	1.4	1
p-Isopropyltoluene	2.3		ug/kg	1.4	1
Naphthalene	ND		ug/kg	7.1	1
n-Propylbenzene	ND		ug/kg	1.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.1	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.1	1
Ethyl ether	ND		ug/kg	7.1	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-04

Date Collected: 08/12/08 09:30

Client ID: IW-3A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.6	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.6	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.6	1
1,4-Dioxane	ND		ug/kg	710	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	122		70-130
Dibromofluoromethane	99		70-130



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-05  
 Client ID: IW-7A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 14:40  
 Analyst: PD  
 Percent Solids: 75%

Date Collected: 08/12/08 09:30  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	13	1
1,1-Dichloroethane	ND		ug/kg	1.9	1
Chloroform	ND		ug/kg	1.9	1
Carbon tetrachloride	ND		ug/kg	1.3	1
1,2-Dichloropropane	ND		ug/kg	4.5	1
Dibromochloromethane	ND		ug/kg	1.3	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	1
Tetrachloroethene	ND		ug/kg	1.3	1
Chlorobenzene	ND		ug/kg	1.3	1
Trichlorofluoromethane	ND		ug/kg	6.4	1
1,2-Dichloroethane	ND		ug/kg	1.3	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	1
Bromodichloromethane	ND		ug/kg	1.3	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	1
1,1-Dichloropropene	ND		ug/kg	6.4	1
Bromoform	ND		ug/kg	5.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	1
Benzene	ND		ug/kg	1.3	1
Toluene	ND		ug/kg	1.9	1
Ethylbenzene	ND		ug/kg	1.3	1
Chloromethane	ND		ug/kg	6.4	1
Bromomethane	ND		ug/kg	2.6	1
Vinyl chloride	ND		ug/kg	2.6	1
Chloroethane	ND		ug/kg	2.6	1
1,1-Dichloroethene	ND		ug/kg	1.3	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	1
Trichloroethene	4.3		ug/kg	1.3	1
1,2-Dichlorobenzene	ND		ug/kg	6.4	1
1,3-Dichlorobenzene	ND		ug/kg	6.4	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-05

Date Collected: 08/12/08 09:30

Client ID: IW-7A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.4	1
Methyl tert butyl ether	ND		ug/kg	2.6	1
p/m-Xylene	ND		ug/kg	2.6	1
o-Xylene	ND		ug/kg	2.6	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	1
Dibromomethane	ND		ug/kg	13	1
1,2,3-Trichloropropane	ND		ug/kg	13	1
Styrene	ND		ug/kg	2.6	1
Dichlorodifluoromethane	ND		ug/kg	13	1
Acetone	14		ug/kg	13	1
Carbon disulfide	ND		ug/kg	64	1
2-Butanone	ND		ug/kg	13	1
4-Methyl-2-pentanone	ND		ug/kg	13	1
2-Hexanone	ND		ug/kg	13	1
Bromochloromethane	ND		ug/kg	6.4	1
Tetrahydrofuran	ND		ug/kg	26	1
2,2-Dichloropropane	ND		ug/kg	6.4	1
1,2-Dibromoethane	ND		ug/kg	5.1	1
1,3-Dichloropropane	ND		ug/kg	6.4	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	1
Bromobenzene	ND		ug/kg	6.4	1
n-Butylbenzene	ND		ug/kg	1.3	1
sec-Butylbenzene	ND		ug/kg	1.3	1
tert-Butylbenzene	ND		ug/kg	6.4	1
o-Chlorotoluene	ND		ug/kg	6.4	1
p-Chlorotoluene	ND		ug/kg	6.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.4	1
Hexachlorobutadiene	ND		ug/kg	6.4	1
Isopropylbenzene	ND		ug/kg	1.3	1
p-Isopropyltoluene	ND		ug/kg	1.3	1
Naphthalene	ND		ug/kg	6.4	1
n-Propylbenzene	ND		ug/kg	1.3	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.4	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.4	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.4	1
Ethyl ether	ND		ug/kg	6.4	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-05

Date Collected: 08/12/08 09:30

Client ID: IW-7A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.1	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.1	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.1	1
1,4-Dioxane	ND		ug/kg	640	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	126		70-130
Dibromofluoromethane	100		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-06  
 Client ID: IW-7B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 15:17  
 Analyst: PD  
 Percent Solids: 76%

Date Collected: 08/12/08 13:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	12	1
1,1-Dichloroethane	ND		ug/kg	1.8	1
Chloroform	ND		ug/kg	1.8	1
Carbon tetrachloride	ND		ug/kg	1.2	1
1,2-Dichloropropane	ND		ug/kg	4.3	1
Dibromochloromethane	ND		ug/kg	1.2	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	1
Tetrachloroethene	ND		ug/kg	1.2	1
Chlorobenzene	ND		ug/kg	1.2	1
Trichlorofluoromethane	ND		ug/kg	6.1	1
1,2-Dichloroethane	ND		ug/kg	1.2	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	1
Bromodichloromethane	ND		ug/kg	1.2	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	1
1,1-Dichloropropene	ND		ug/kg	6.1	1
Bromoform	ND		ug/kg	4.9	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	1
Benzene	ND		ug/kg	1.2	1
Toluene	ND		ug/kg	1.8	1
Ethylbenzene	ND		ug/kg	1.2	1
Chloromethane	ND		ug/kg	6.1	1
Bromomethane	ND		ug/kg	2.4	1
Vinyl chloride	ND		ug/kg	2.4	1
Chloroethane	ND		ug/kg	2.4	1
1,1-Dichloroethene	ND		ug/kg	1.2	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	1
Trichloroethene	ND		ug/kg	1.2	1
1,2-Dichlorobenzene	ND		ug/kg	6.1	1
1,3-Dichlorobenzene	ND		ug/kg	6.1	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-06

Date Collected: 08/12/08 13:00

Client ID: IW-7B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.1	1
Methyl tert butyl ether	ND		ug/kg	2.4	1
p/m-Xylene	ND		ug/kg	2.4	1
o-Xylene	ND		ug/kg	2.4	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	1
Dibromomethane	ND		ug/kg	12	1
1,2,3-Trichloropropane	ND		ug/kg	12	1
Styrene	ND		ug/kg	2.4	1
Dichlorodifluoromethane	ND		ug/kg	12	1
Acetone	ND		ug/kg	12	1
Carbon disulfide	ND		ug/kg	61	1
2-Butanone	ND		ug/kg	12	1
4-Methyl-2-pentanone	ND		ug/kg	12	1
2-Hexanone	ND		ug/kg	12	1
Bromochloromethane	ND		ug/kg	6.1	1
Tetrahydrofuran	ND		ug/kg	24	1
2,2-Dichloropropane	ND		ug/kg	6.1	1
1,2-Dibromoethane	ND		ug/kg	4.9	1
1,3-Dichloropropane	ND		ug/kg	6.1	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	1
Bromobenzene	ND		ug/kg	6.1	1
n-Butylbenzene	ND		ug/kg	1.2	1
sec-Butylbenzene	ND		ug/kg	1.2	1
tert-Butylbenzene	ND		ug/kg	6.1	1
o-Chlorotoluene	ND		ug/kg	6.1	1
p-Chlorotoluene	ND		ug/kg	6.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	1
Hexachlorobutadiene	ND		ug/kg	6.1	1
Isopropylbenzene	ND		ug/kg	1.2	1
p-Isopropyltoluene	ND		ug/kg	1.2	1
Naphthalene	ND		ug/kg	6.1	1
n-Propylbenzene	ND		ug/kg	1.2	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.1	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.1	1
Ethyl ether	ND		ug/kg	6.1	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-06

Date Collected: 08/12/08 13:00

Client ID: IW-7B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.9	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.9	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.9	1
1,4-Dioxane	ND		ug/kg	610	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	89		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-07  
 Client ID: IW-8A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 15:54  
 Analyst: PD  
 Percent Solids: 88%

Date Collected: 08/12/08 13:10  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	11	1
1,1-Dichloroethane	ND		ug/kg	1.6	1
Chloroform	ND		ug/kg	1.6	1
Carbon tetrachloride	ND		ug/kg	1.1	1
1,2-Dichloropropane	ND		ug/kg	3.8	1
Dibromochloromethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.6	1
Tetrachloroethene	ND		ug/kg	1.1	1
Chlorobenzene	ND		ug/kg	1.1	1
Trichlorofluoromethane	ND		ug/kg	5.5	1
1,2-Dichloroethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	1
Bromodichloromethane	ND		ug/kg	1.1	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	1
1,1-Dichloropropene	ND		ug/kg	5.5	1
Bromoform	ND		ug/kg	4.4	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Benzene	ND		ug/kg	1.1	1
Toluene	ND		ug/kg	1.6	1
Ethylbenzene	ND		ug/kg	1.1	1
Chloromethane	ND		ug/kg	5.5	1
Bromomethane	ND		ug/kg	2.2	1
Vinyl chloride	ND		ug/kg	2.2	1
Chloroethane	ND		ug/kg	2.2	1
1,1-Dichloroethene	ND		ug/kg	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	1
Trichloroethene	ND		ug/kg	1.1	1
1,2-Dichlorobenzene	ND		ug/kg	5.5	1
1,3-Dichlorobenzene	ND		ug/kg	5.5	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-07

Date Collected: 08/12/08 13:10

Client ID: IW-8A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.5	1
Methyl tert butyl ether	ND		ug/kg	2.2	1
p/m-Xylene	ND		ug/kg	2.2	1
o-Xylene	ND		ug/kg	2.2	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	1
Dibromomethane	ND		ug/kg	11	1
1,2,3-Trichloropropane	ND		ug/kg	11	1
Styrene	ND		ug/kg	2.2	1
Dichlorodifluoromethane	ND		ug/kg	11	1
Acetone	ND		ug/kg	11	1
Carbon disulfide	ND		ug/kg	55	1
2-Butanone	ND		ug/kg	11	1
4-Methyl-2-pentanone	ND		ug/kg	11	1
2-Hexanone	ND		ug/kg	11	1
Bromochloromethane	ND		ug/kg	5.5	1
Tetrahydrofuran	ND		ug/kg	22	1
2,2-Dichloropropane	ND		ug/kg	5.5	1
1,2-Dibromoethane	ND		ug/kg	4.4	1
1,3-Dichloropropane	ND		ug/kg	5.5	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Bromobenzene	ND		ug/kg	5.5	1
n-Butylbenzene	ND		ug/kg	1.1	1
sec-Butylbenzene	ND		ug/kg	1.1	1
tert-Butylbenzene	ND		ug/kg	5.5	1
o-Chlorotoluene	ND		ug/kg	5.5	1
p-Chlorotoluene	ND		ug/kg	5.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.5	1
Hexachlorobutadiene	ND		ug/kg	5.5	1
Isopropylbenzene	ND		ug/kg	1.1	1
p-Isopropyltoluene	ND		ug/kg	1.1	1
Naphthalene	ND		ug/kg	5.5	1
n-Propylbenzene	ND		ug/kg	1.1	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.5	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.5	1
Ethyl ether	ND		ug/kg	5.5	1



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-07

Date Collected: 08/12/08 13:10

Client ID: IW-8A-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.4	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.4	1
1,4-Dioxane	ND		ug/kg	550	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	<b>133</b>		70-130
Dibromofluoromethane	103		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-08  
 Client ID: IW-8B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 16:31  
 Analyst: PD  
 Percent Solids: 68%

Date Collected: 08/12/08 13:50  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	14	1
1,1-Dichloroethane	ND		ug/kg	2.1	1
Chloroform	ND		ug/kg	2.1	1
Carbon tetrachloride	ND		ug/kg	1.4	1
1,2-Dichloropropane	ND		ug/kg	4.8	1
Dibromochloromethane	ND		ug/kg	1.4	1
1,1,2-Trichloroethane	ND		ug/kg	2.1	1
Tetrachloroethene	ND		ug/kg	1.4	1
Chlorobenzene	ND		ug/kg	1.4	1
Trichlorofluoromethane	ND		ug/kg	6.9	1
1,2-Dichloroethane	ND		ug/kg	1.4	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	1
Bromodichloromethane	ND		ug/kg	1.4	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	1
1,1-Dichloropropene	ND		ug/kg	6.9	1
Bromoform	ND		ug/kg	5.5	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	1
Benzene	ND		ug/kg	1.4	1
Toluene	ND		ug/kg	2.1	1
Ethylbenzene	ND		ug/kg	1.4	1
Chloromethane	ND		ug/kg	6.9	1
Bromomethane	ND		ug/kg	2.8	1
Vinyl chloride	ND		ug/kg	2.8	1
Chloroethane	ND		ug/kg	2.8	1
1,1-Dichloroethene	ND		ug/kg	1.4	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	1
Trichloroethene	ND		ug/kg	1.4	1
1,2-Dichlorobenzene	ND		ug/kg	6.9	1
1,3-Dichlorobenzene	ND		ug/kg	6.9	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-08

Date Collected: 08/12/08 13:50

Client ID: IW-8B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.9	1
Methyl tert butyl ether	ND		ug/kg	2.8	1
p/m-Xylene	ND		ug/kg	2.8	1
o-Xylene	ND		ug/kg	2.8	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	1
Dibromomethane	ND		ug/kg	14	1
1,2,3-Trichloropropane	ND		ug/kg	14	1
Styrene	ND		ug/kg	2.8	1
Dichlorodifluoromethane	ND		ug/kg	14	1
Acetone	ND		ug/kg	14	1
Carbon disulfide	ND		ug/kg	69	1
2-Butanone	ND		ug/kg	14	1
4-Methyl-2-pentanone	ND		ug/kg	14	1
2-Hexanone	ND		ug/kg	14	1
Bromochloromethane	ND		ug/kg	6.9	1
Tetrahydrofuran	ND		ug/kg	28	1
2,2-Dichloropropane	ND		ug/kg	6.9	1
1,2-Dibromoethane	ND		ug/kg	5.5	1
1,3-Dichloropropane	ND		ug/kg	6.9	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	1
Bromobenzene	ND		ug/kg	6.9	1
n-Butylbenzene	ND		ug/kg	1.4	1
sec-Butylbenzene	ND		ug/kg	1.4	1
tert-Butylbenzene	ND		ug/kg	6.9	1
o-Chlorotoluene	ND		ug/kg	6.9	1
p-Chlorotoluene	ND		ug/kg	6.9	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.9	1
Hexachlorobutadiene	ND		ug/kg	6.9	1
Isopropylbenzene	ND		ug/kg	1.4	1
p-Isopropyltoluene	ND		ug/kg	1.4	1
Naphthalene	ND		ug/kg	6.9	1
n-Propylbenzene	ND		ug/kg	1.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.9	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.9	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.9	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.9	1
Ethyl ether	ND		ug/kg	6.9	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-08

Date Collected: 08/12/08 13:50

Client ID: IW-8B-20080812-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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**Volatile Organics by MCP 8260B/5035-Soil Analysis**

Isopropyl Ether	ND		ug/kg	5.5	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.5	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.5	1
1,4-Dioxane	ND		ug/kg	690	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	89		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-09  
 Client ID: IW-9B-20080813-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 17:07  
 Analyst: PD  
 Percent Solids: 71%

Date Collected: 08/12/08 14:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	13	1
1,1-Dichloroethane	ND		ug/kg	2.0	1
Chloroform	ND		ug/kg	2.0	1
Carbon tetrachloride	ND		ug/kg	1.3	1
1,2-Dichloropropane	ND		ug/kg	4.6	1
Dibromochloromethane	ND		ug/kg	1.3	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	1
Tetrachloroethene	ND		ug/kg	1.3	1
Chlorobenzene	ND		ug/kg	1.3	1
Trichlorofluoromethane	ND		ug/kg	6.5	1
1,2-Dichloroethane	ND		ug/kg	1.3	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	1
Bromodichloromethane	ND		ug/kg	1.3	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	1
1,1-Dichloropropene	ND		ug/kg	6.5	1
Bromoform	ND		ug/kg	5.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	1
Benzene	ND		ug/kg	1.3	1
Toluene	ND		ug/kg	2.0	1
Ethylbenzene	ND		ug/kg	1.3	1
Chloromethane	ND		ug/kg	6.5	1
Bromomethane	ND		ug/kg	2.6	1
Vinyl chloride	ND		ug/kg	2.6	1
Chloroethane	ND		ug/kg	2.6	1
1,1-Dichloroethene	ND		ug/kg	1.3	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	1
Trichloroethene	ND		ug/kg	1.3	1
1,2-Dichlorobenzene	ND		ug/kg	6.5	1
1,3-Dichlorobenzene	ND		ug/kg	6.5	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-09

Date Collected: 08/12/08 14:00

Client ID: IW-9B-20080813-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.5	1
Methyl tert butyl ether	ND		ug/kg	2.6	1
p/m-Xylene	ND		ug/kg	2.6	1
o-Xylene	ND		ug/kg	2.6	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	1
Dibromomethane	ND		ug/kg	13	1
1,2,3-Trichloropropane	ND		ug/kg	13	1
Styrene	ND		ug/kg	2.6	1
Dichlorodifluoromethane	ND		ug/kg	13	1
Acetone	ND		ug/kg	13	1
Carbon disulfide	ND		ug/kg	65	1
2-Butanone	ND		ug/kg	13	1
4-Methyl-2-pentanone	ND		ug/kg	13	1
2-Hexanone	ND		ug/kg	13	1
Bromochloromethane	ND		ug/kg	6.5	1
Tetrahydrofuran	ND		ug/kg	26	1
2,2-Dichloropropane	ND		ug/kg	6.5	1
1,2-Dibromoethane	ND		ug/kg	5.2	1
1,3-Dichloropropane	ND		ug/kg	6.5	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	1
Bromobenzene	ND		ug/kg	6.5	1
n-Butylbenzene	ND		ug/kg	1.3	1
sec-Butylbenzene	ND		ug/kg	1.3	1
tert-Butylbenzene	ND		ug/kg	6.5	1
o-Chlorotoluene	ND		ug/kg	6.5	1
p-Chlorotoluene	ND		ug/kg	6.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.5	1
Hexachlorobutadiene	ND		ug/kg	6.5	1
Isopropylbenzene	ND		ug/kg	1.3	1
p-Isopropyltoluene	ND		ug/kg	1.3	1
Naphthalene	ND		ug/kg	6.5	1
n-Propylbenzene	ND		ug/kg	1.3	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.5	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.5	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.5	1
Ethyl ether	ND		ug/kg	6.5	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-09

Date Collected: 08/12/08 14:00

Client ID: IW-9B-20080813-01

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.2	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.2	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.2	1
1,4-Dioxane	ND		ug/kg	650	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	129		70-130
Dibromofluoromethane	102		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID:	L0811944-10	Date Collected:	08/11/08 11:22
Client ID:	TB-001-20080813-01+TB-002-2008	Date Received:	08/13/08
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	60,8260B		
Analytical Date:	08/20/08 12:10		
Analyst:	BN		
Percent Solids:	Results are reported on an 'AS RECEIVED' basis.		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	500	1
1,1-Dichloroethane	ND		ug/kg	75	1
Chloroform	ND		ug/kg	75	1
Carbon tetrachloride	ND		ug/kg	50	1
1,2-Dichloropropane	ND		ug/kg	180	1
Dibromochloromethane	ND		ug/kg	50	1
1,1,2-Trichloroethane	ND		ug/kg	75	1
Tetrachloroethene	ND		ug/kg	50	1
Chlorobenzene	ND		ug/kg	50	1
Trichlorofluoromethane	ND		ug/kg	250	1
1,2-Dichloroethane	ND		ug/kg	50	1
1,1,1-Trichloroethane	ND		ug/kg	50	1
Bromodichloromethane	ND		ug/kg	50	1
trans-1,3-Dichloropropene	ND		ug/kg	50	1
cis-1,3-Dichloropropene	ND		ug/kg	50	1
1,1-Dichloropropene	ND		ug/kg	250	1
Bromoform	ND		ug/kg	200	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	1
Benzene	ND		ug/kg	50	1
Toluene	ND		ug/kg	75	1
Ethylbenzene	ND		ug/kg	50	1
Chloromethane	ND		ug/kg	250	1
Bromomethane	ND		ug/kg	100	1
Vinyl chloride	ND		ug/kg	100	1
Chloroethane	ND		ug/kg	100	1
1,1-Dichloroethene	ND		ug/kg	50	1
trans-1,2-Dichloroethene	ND		ug/kg	75	1
Trichloroethene	ND		ug/kg	50	1
1,2-Dichlorobenzene	ND		ug/kg	250	1
1,3-Dichlorobenzene	ND		ug/kg	250	1



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-10

Date Collected: 08/11/08 11:22

Client ID: TB-001-20080813-01+TB-002-2008

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	250	1
Methyl tert butyl ether	ND		ug/kg	100	1
p/m-Xylene	ND		ug/kg	100	1
o-Xylene	ND		ug/kg	100	1
cis-1,2-Dichloroethene	ND		ug/kg	50	1
Dibromomethane	ND		ug/kg	500	1
1,2,3-Trichloropropane	ND		ug/kg	500	1
Styrene	ND		ug/kg	100	1
Dichlorodifluoromethane	ND		ug/kg	500	1
Acetone	ND		ug/kg	500	1
Carbon disulfide	ND		ug/kg	2500	1
2-Butanone	ND		ug/kg	500	1
4-Methyl-2-pentanone	ND		ug/kg	500	1
2-Hexanone	ND		ug/kg	500	1
Bromochloromethane	ND		ug/kg	250	1
Tetrahydrofuran	ND		ug/kg	1000	1
2,2-Dichloropropane	ND		ug/kg	250	1
1,2-Dibromoethane	ND		ug/kg	200	1
1,3-Dichloropropane	ND		ug/kg	250	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	1
Bromobenzene	ND		ug/kg	250	1
n-Butylbenzene	ND		ug/kg	50	1
sec-Butylbenzene	ND		ug/kg	50	1
tert-Butylbenzene	ND		ug/kg	250	1
o-Chlorotoluene	ND		ug/kg	250	1
p-Chlorotoluene	ND		ug/kg	250	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	1
Hexachlorobutadiene	ND		ug/kg	250	1
Isopropylbenzene	ND		ug/kg	50	1
p-Isopropyltoluene	ND		ug/kg	50	1
Naphthalene	ND		ug/kg	250	1
n-Propylbenzene	ND		ug/kg	50	1
1,2,3-Trichlorobenzene	ND		ug/kg	250	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	1
1,3,5-Trimethylbenzene	ND		ug/kg	250	1
1,2,4-Trimethylbenzene	ND		ug/kg	250	1
Ethyl ether	ND		ug/kg	250	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

Lab ID: L0811944-10

Date Collected: 08/11/08 11:22

Client ID: TB-001-20080813-01+TB-002-2008

Date Received: 08/13/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	200	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	1
1,4-Dioxane	ND		ug/kg	25000	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
 Analytical Date: 08/15/08 10:54  
 Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-09 Batch: WG332718-3				
Methylene chloride	ND		ug/kg	10
1,1-Dichloroethane	ND		ug/kg	1.5
Chloroform	ND		ug/kg	1.5
Carbon tetrachloride	ND		ug/kg	1.0
1,2-Dichloropropane	ND		ug/kg	3.5
Dibromochloromethane	ND		ug/kg	1.0
1,1,2-Trichloroethane	ND		ug/kg	1.5
Tetrachloroethene	ND		ug/kg	1.0
Chlorobenzene	ND		ug/kg	1.0
Trichlorofluoromethane	ND		ug/kg	5.0
1,2-Dichloroethane	ND		ug/kg	1.0
1,1,1-Trichloroethane	ND		ug/kg	1.0
Bromodichloromethane	ND		ug/kg	1.0
trans-1,3-Dichloropropene	ND		ug/kg	1.0
cis-1,3-Dichloropropene	ND		ug/kg	1.0
1,1-Dichloropropene	ND		ug/kg	5.0
Bromoform	ND		ug/kg	4.0
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0
Benzene	ND		ug/kg	1.0
Toluene	ND		ug/kg	1.5
Ethylbenzene	ND		ug/kg	1.0
Chloromethane	ND		ug/kg	5.0
Bromomethane	ND		ug/kg	2.0
Vinyl chloride	ND		ug/kg	2.0
Chloroethane	ND		ug/kg	2.0
1,1-Dichloroethene	ND		ug/kg	1.0
trans-1,2-Dichloroethene	ND		ug/kg	1.5
Trichloroethene	ND		ug/kg	1.0
1,2-Dichlorobenzene	ND		ug/kg	5.0
1,3-Dichlorobenzene	ND		ug/kg	5.0
1,4-Dichlorobenzene	ND		ug/kg	5.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/15/08 10:54  
Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-09 Batch: WG332718-3				
Methyl tert butyl ether	ND		ug/kg	2.0
p/m-Xylene	ND		ug/kg	2.0
o-Xylene	ND		ug/kg	2.0
cis-1,2-Dichloroethene	ND		ug/kg	1.0
Dibromomethane	ND		ug/kg	10
1,2,3-Trichloropropane	ND		ug/kg	10
Styrene	ND		ug/kg	2.0
Dichlorodifluoromethane	ND		ug/kg	10
Acetone	ND		ug/kg	10
Carbon disulfide	ND		ug/kg	50
2-Butanone	ND		ug/kg	10
4-Methyl-2-pentanone	ND		ug/kg	10
2-Hexanone	ND		ug/kg	10
Bromochloromethane	ND		ug/kg	5.0
Tetrahydrofuran	ND		ug/kg	20
2,2-Dichloropropane	ND		ug/kg	5.0
1,2-Dibromoethane	ND		ug/kg	4.0
1,3-Dichloropropane	ND		ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0
Bromobenzene	ND		ug/kg	5.0
n-Butylbenzene	ND		ug/kg	1.0
sec-Butylbenzene	ND		ug/kg	1.0
tert-Butylbenzene	ND		ug/kg	5.0
o-Chlorotoluene	ND		ug/kg	5.0
p-Chlorotoluene	ND		ug/kg	5.0
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0
Hexachlorobutadiene	ND		ug/kg	5.0
Isopropylbenzene	ND		ug/kg	1.0
p-Isopropyltoluene	ND		ug/kg	1.0
Naphthalene	ND		ug/kg	5.0
n-Propylbenzene	ND		ug/kg	1.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/15/08 10:54  
Analyst: PD

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-09 Batch: WG332718-3				
1,2,3-Trichlorobenzene	ND		ug/kg	5.0
1,2,4-Trichlorobenzene	ND		ug/kg	5.0
1,3,5-Trimethylbenzene	ND		ug/kg	5.0
1,2,4-Trimethylbenzene	ND		ug/kg	5.0
Ethyl ether	ND		ug/kg	5.0
Isopropyl Ether	ND		ug/kg	4.0
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0
1,4-Dioxane	ND		ug/kg	500

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	118		70-130
4-Bromofluorobenzene	129		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/20/08 09:12  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 10 Batch: WG333051-9				
Methylene chloride	ND		ug/kg	500
1,1-Dichloroethane	ND		ug/kg	75
Chloroform	ND		ug/kg	75
Carbon tetrachloride	ND		ug/kg	50
1,2-Dichloropropane	ND		ug/kg	180
Dibromochloromethane	ND		ug/kg	50
1,1,2-Trichloroethane	ND		ug/kg	75
Tetrachloroethene	ND		ug/kg	50
Chlorobenzene	ND		ug/kg	50
Trichlorofluoromethane	ND		ug/kg	250
1,2-Dichloroethane	ND		ug/kg	50
1,1,1-Trichloroethane	ND		ug/kg	50
Bromodichloromethane	ND		ug/kg	50
trans-1,3-Dichloropropene	ND		ug/kg	50
cis-1,3-Dichloropropene	ND		ug/kg	50
1,1-Dichloropropene	ND		ug/kg	250
Bromoform	ND		ug/kg	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	50
Benzene	ND		ug/kg	50
Toluene	ND		ug/kg	75
Ethylbenzene	ND		ug/kg	50
Chloromethane	ND		ug/kg	250
Bromomethane	ND		ug/kg	100
Vinyl chloride	ND		ug/kg	100
Chloroethane	ND		ug/kg	100
1,1-Dichloroethene	ND		ug/kg	50
trans-1,2-Dichloroethene	ND		ug/kg	75
Trichloroethene	ND		ug/kg	50
1,2-Dichlorobenzene	ND		ug/kg	250
1,3-Dichlorobenzene	ND		ug/kg	250
1,4-Dichlorobenzene	ND		ug/kg	250

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/20/08 09:12  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 10 Batch: WG333051-9				
Methyl tert butyl ether	ND		ug/kg	100
p/m-Xylene	ND		ug/kg	100
o-Xylene	ND		ug/kg	100
cis-1,2-Dichloroethene	ND		ug/kg	50
Dibromomethane	ND		ug/kg	500
1,2,3-Trichloropropane	ND		ug/kg	500
Styrene	ND		ug/kg	100
Dichlorodifluoromethane	ND		ug/kg	500
Acetone	ND		ug/kg	500
Carbon disulfide	ND		ug/kg	2500
2-Butanone	ND		ug/kg	500
4-Methyl-2-pentanone	ND		ug/kg	500
2-Hexanone	ND		ug/kg	500
Bromochloromethane	ND		ug/kg	250
Tetrahydrofuran	ND		ug/kg	1000
2,2-Dichloropropane	ND		ug/kg	250
1,2-Dibromoethane	ND		ug/kg	200
1,3-Dichloropropane	ND		ug/kg	250
1,1,1,2-Tetrachloroethane	ND		ug/kg	50
Bromobenzene	ND		ug/kg	250
n-Butylbenzene	ND		ug/kg	50
sec-Butylbenzene	ND		ug/kg	50
tert-Butylbenzene	ND		ug/kg	250
o-Chlorotoluene	ND		ug/kg	250
p-Chlorotoluene	ND		ug/kg	250
1,2-Dibromo-3-chloropropane	ND		ug/kg	250
Hexachlorobutadiene	ND		ug/kg	250
Isopropylbenzene	ND		ug/kg	50
p-Isopropyltoluene	ND		ug/kg	50
Naphthalene	ND		ug/kg	250
n-Propylbenzene	ND		ug/kg	50

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/20/08 09:12  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 10 Batch: WG333051-9				
1,2,3-Trichlorobenzene	ND		ug/kg	250
1,2,4-Trichlorobenzene	ND		ug/kg	250
1,3,5-Trimethylbenzene	ND		ug/kg	250
1,2,4-Trimethylbenzene	ND		ug/kg	250
Ethyl ether	ND		ug/kg	250
Isopropyl Ether	ND		ug/kg	200
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200
Tertiary-Amyl Methyl Ether	ND		ug/kg	200
1,4-Dioxane	ND		ug/kg	25000

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	108		70-130



## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-09 Batch: WG332718-1 WG332718-2					
Methylene chloride	89	100	70-130	12	25
1,1-Dichloroethane	100	117	70-130	16	25
Chloroform	93	110	70-130	17	25
Carbon tetrachloride	83	96	70-130	15	25
1,2-Dichloropropane	97	116	70-130	18	25
Dibromochloromethane	79	97	70-130	20	25
1,1,2-Trichloroethane	98	118	70-130	19	25
Tetrachloroethene	87	102	70-130	16	25
Chlorobenzene	93	111	70-130	18	25
Trichlorofluoromethane	103	122	70-130	17	25
1,2-Dichloroethane	104	123	70-130	17	25
1,1,1-Trichloroethane	90	105	70-130	15	25
Bromodichloromethane	90	108	70-130	18	25
trans-1,3-Dichloropropene	89	108	70-130	19	25
cis-1,3-Dichloropropene	90	108	70-130	18	25
1,1-Dichloropropene	95	113	70-130	17	25
Bromoform	70	86	70-130	21	50
1,1,2,2-Tetrachloroethane	102	121	70-130	17	25
Benzene	91	108	70-130	17	25
Toluene	92	110	70-130	18	25
Ethylbenzene	98	118	70-130	19	25

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-09 Batch: WG332718-1 WG332718-2					
Chloromethane	86	99	70-130	14	50
Bromomethane	95	114	70-130	18	50
Vinyl chloride	100	113	70-130	12	25
Chloroethane	101	119	70-130	16	25
1,1-Dichloroethene	101	118	70-130	16	25
trans-1,2-Dichloroethene	88	105	70-130	18	25
Trichloroethene	87	103	70-130	17	25
1,2-Dichlorobenzene	92	109	70-130	17	25
1,3-Dichlorobenzene	94	110	70-130	16	25
1,4-Dichlorobenzene	93	112	70-130	19	25
Methyl tert butyl ether	87	97	70-130	11	25
p/m-Xylene	95	115	70-130	19	25
o-Xylene	94	109	70-130	15	25
cis-1,2-Dichloroethene	87	103	70-130	17	25
Dibromomethane	92	109	70-130	17	25
1,2,3-Trichloropropane	116	137	70-130	17	25
Styrene	93	109	70-130	16	25
Dichlorodifluoromethane	70	83	70-130	17	50
Acetone	98	110	70-130	12	50
Carbon disulfide	93	111	70-130	18	25
2-Butanone	100	118	70-130	17	50

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-09 Batch: WG332718-1 WG332718-2					
4-Methyl-2-pentanone	97	120	70-130	21	50
2-Hexanone	110	128	70-130	15	50
Bromochloromethane	87	100	70-130	14	25
Tetrahydrofuran	90	107	70-130	17	25
2,2-Dichloropropane	93	110	70-130	17	50
1,2-Dibromoethane	91	109	70-130	18	25
1,3-Dichloropropane	102	120	70-130	16	25
1,1,1,2-Tetrachloroethane	80	97	70-130	19	25
Bromobenzene	88	106	70-130	19	25
n-Butylbenzene	105	126	70-130	18	25
sec-Butylbenzene	102	121	70-130	17	25
tert-Butylbenzene	98	116	70-130	17	25
o-Chlorotoluene	101	121	70-130	18	25
p-Chlorotoluene	102	122	70-130	18	25
1,2-Dibromo-3-chloropropane	92	107	70-130	15	50
Hexachlorobutadiene	78	90	70-130	14	25
Isopropylbenzene	114	136	70-130	18	25
p-Isopropyltoluene	102	123	70-130	19	25
Naphthalene	85	95	70-130	11	25
n-Propylbenzene	106	127	70-130	18	25
1,2,3-Trichlorobenzene	86	97	70-130	12	25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0811944

**Project Number:** 0079387

**Report Date:** 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-09 Batch: WG332718-1 WG332718-2					
1,2,4-Trichlorobenzene	86	98	70-130	13	25
1,3,5-Trimethylbenzene	98	119	70-130	19	25
1,2,4-Trimethylbenzene	98	116	70-130	17	25
Ethyl ether	90	102	70-130	13	25
Isopropyl Ether	90	103	70-130	13	25
Ethyl-Tert-Butyl-Ether	88	99	70-130	12	25
Tertiary-Amyl Methyl Ether	80	92	70-130	14	25
1,4-Dioxane	98	109	70-130	11	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		106		70-130
Toluene-d8	111		101		70-130
4-Bromofluorobenzene	113		102		70-130
Dibromofluoromethane	106		95		70-130

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 10 Batch: WG333051-7 WG333051-8					
Methylene chloride	95	100	70-130	5	25
1,1-Dichloroethane	93	94	70-130	1	25
Chloroform	91	94	70-130	3	25
Carbon tetrachloride	87	89	70-130	2	25
1,2-Dichloropropane	95	96	70-130	1	25
Dibromochloromethane	94	90	70-130	4	25
1,1,2-Trichloroethane	95	94	70-130	1	25
Tetrachloroethene	83	88	70-130	6	25
Chlorobenzene	89	90	70-130	1	25
Trichlorofluoromethane	92	98	70-130	6	25
1,2-Dichloroethane	95	96	70-130	1	25
1,1,1-Trichloroethane	89	92	70-130	3	25
Bromodichloromethane	92	95	70-130	3	25
trans-1,3-Dichloropropene	98	96	70-130	2	25
cis-1,3-Dichloropropene	96	99	70-130	3	25
1,1-Dichloropropene	91	93	70-130	2	25
Bromoform	89	88	70-130	1	50
1,1,2,2-Tetrachloroethane	99	95	70-130	4	25
Benzene	92	94	70-130	2	25
Toluene	88	90	70-130	2	25
Ethylbenzene	89	91	70-130	2	25

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 10 Batch: WG333051-7 WG333051-8					
Chloromethane	86	89	70-130	3	50
Bromomethane	92	87	70-130	6	50
Vinyl chloride	92	92	70-130	0	25
Chloroethane	92	92	70-130	0	25
1,1-Dichloroethene	90	95	70-130	5	25
trans-1,2-Dichloroethene	90	92	70-130	2	25
Trichloroethene	90	91	70-130	1	25
1,2-Dichlorobenzene	90	91	70-130	1	25
1,3-Dichlorobenzene	87	90	70-130	3	25
1,4-Dichlorobenzene	88	90	70-130	2	25
Methyl tert butyl ether	94	90	70-130	4	25
p/m-Xylene	90	91	70-130	1	25
o-Xylene	91	93	70-130	2	25
cis-1,2-Dichloroethene	91	92	70-130	1	25
Dibromomethane	99	92	70-130	7	25
1,2,3-Trichloropropane	105	105	70-130	0	25
Styrene	92	93	70-130	1	25
Dichlorodifluoromethane	88	90	70-130	2	50
Acetone	87	106	70-130	20	50
Carbon disulfide	70	73	70-130	4	25
2-Butanone	112	104	70-130	7	50

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 10 Batch: WG333051-7 WG333051-8					
4-Methyl-2-pentanone	116	108	70-130	7	50
2-Hexanone	108	104	70-130	4	50
Bromochloromethane	93	93	70-130	0	25
Tetrahydrofuran	96	91	70-130	5	25
2,2-Dichloropropane	95	94	70-130	1	50
1,2-Dibromoethane	95	94	70-130	1	25
1,3-Dichloropropane	95	94	70-130	1	25
1,1,1,2-Tetrachloroethane	94	90	70-130	4	25
Bromobenzene	88	90	70-130	2	25
n-Butylbenzene	90	94	70-130	4	25
sec-Butylbenzene	89	92	70-130	3	25
tert-Butylbenzene	87	91	70-130	4	25
o-Chlorotoluene	90	89	70-130	1	25
p-Chlorotoluene	92	94	70-130	2	25
1,2-Dibromo-3-chloropropane	94	92	70-130	2	50
Hexachlorobutadiene	81	86	70-130	6	25
Isopropylbenzene	108	111	70-130	3	25
p-Isopropyltoluene	92	96	70-130	4	25
Naphthalene	91	88	70-130	3	25
n-Propylbenzene	90	92	70-130	2	25
1,2,3-Trichlorobenzene	90	90	70-130	0	25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0811944

**Project Number:** 0079387

**Report Date:** 08/20/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 10 Batch: WG333051-7 WG333051-8					
1,2,4-Trichlorobenzene	90	91	70-130	1	25
1,3,5-Trimethylbenzene	89	92	70-130	3	25
1,2,4-Trimethylbenzene	91	92	70-130	1	25
Ethyl ether	78	78	70-130	0	25
Isopropyl Ether	91	90	70-130	1	25
Ethyl-Tert-Butyl-Ether	99	96	70-130	3	25
Tertiary-Amyl Methyl Ether	97	94	70-130	3	25
1,4-Dioxane	108	104	70-130	4	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		109		70-130
Toluene-d8	106		102		70-130
4-Bromofluorobenzene	106		104		70-130
Dibromofluoromethane	108		100		70-130



# **INORGANICS & MISCELLANEOUS**

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

### SAMPLE RESULTS

**Lab ID:** L0811944-01  
**Client ID:** IW-9A-20080813-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/13/08 10:30  
**Date Received:** 08/13/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	84		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-02  
 Client ID: IW-6B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 10:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	72		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

**Lab ID:** L0811944-03  
**Client ID:** IW-6A-20080812-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/12/08 09:50  
**Date Received:** 08/13/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	73		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-04  
 Client ID: IW-3A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:30  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	62		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-05  
 Client ID: IW-7A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 09:30  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	75		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-06  
 Client ID: IW-7B-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 13:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	76		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-07  
 Client ID: IW-8A-20080812-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 13:10  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	88		%	0.10	1	-	08/16/08 13:10	30,2540G	ST





**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0811944**Project Number:** 0079387**Report Date:** 08/20/08**SAMPLE RESULTS**

**Lab ID:** L0811944-08  
**Client ID:** IW-8B-20080812-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/12/08 13:50  
**Date Received:** 08/13/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	68		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## SAMPLE RESULTS

Lab ID: L0811944-09  
 Client ID: IW-9B-20080813-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/12/08 14:00  
 Date Received: 08/13/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	71		%	0.10	1	-	08/16/08 13:10	30,2540G	ST



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387

Lab Number: L0811944

Report Date: 08/20/08

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01-09 QC Batch ID: WG332833-1 QC Sample: L0812007-04 Client ID: DUP Sample					
Solids, Total	90	89	%	1	20

Project Name: RAYTHEON-WAYLAND

Lab Number: L0811944

Project Number: 0079387

Report Date: 08/20/08

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information

Cooler	Custody Seal
A	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0811944-01A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-01B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-01C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-01D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-02A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-02B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-02C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-02D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-03A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-03B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-03C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-03D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-04A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-04B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-04C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-04D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-05A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-05B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-05C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-05D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-06A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-06B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-06C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-06D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-07A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-07B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-07C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-07D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-08A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-08B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)

\*Hold days indicated by values in parentheses

**Project Name:** RAYTHEON-WAYLAND**Project Number:** 0079387**Lab Number:** L0811944**Report Date:** 08/20/08**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis</b>
L0811944-08C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-08D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-09A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-09B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-09C	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-09D	Plastic 2oz unpreserved for TS	A	N/A	4.0C	Y	Absent	TS(7)
L0811944-10A	Vial MeOH preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)
L0811944-10B	Vial water preserved	A	N/A	4.0C	Y	Absent	MCP-8260HLW(14)

\*Hold days indicated by values in parentheses



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

## 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.  
 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.  
 NI - Not Ignitable.  
 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.  
 ND - Not detected at the reported detection limit for the sample.  
 RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL 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

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

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.

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

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

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

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0811944  
**Report Date:** 08/20/08

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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.



# CHAIN OF CUSTODY



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

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

**Client Information**

Client: **ERM - Boston**

Address: **399 Boylston St. 6<sup>th</sup> floor**

**Boston, MA 02116**

Phone: **617-646-7800**

Fax: **617-267-6447**

Email: **Jason.Flattery@erm.com**

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

**Project Information**

Project Name: **Raytheon - Maryland**

Project Location: **Maryland, MA**

Project #: **0679387**

Project Manager: **Jason Flattery**

ALPHA Quote #:

**Turn-Around Time**

Standard

RUSH (only confirmed if pre-approved)

Date Due: **8/26/08**

Time:

Date Rec'd in Lab: **8/13/08**

**Report Information - Data Deliverables**

FAX

EMAIL

GADEx

Add'l Deliverables

**Regulatory Requirements/Report Limits**

State / Fed Program

**MCP**

**MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS**

**Alpha Job #:** **Log11944**

**Billing Information**

Same as Client info

PO #:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		

11944	- 01 IW-9A-20080813-01	8/13/08	1030	S	EW	1	2	1
	- 02 IW-6B-20080812-01	8/12/08	1000	S	BM	1	2	1
	- 03 IW-6A-20080812-01	8/12/08	0950	S	BM	1	2	1
	- 04 IW-3A-20080812-01	8/12/08	0930	S	BM	1	2	1
	- 05 IW-7A-20080812-01	8/12/08	1300	S	BM	1	2	1
	- 06 IW-7B-20080812-01	8/12/08	1310	S	EW	1	2	1
	- 07 IW-8A-20080812-01	8/12/08	1350	S	BM	1	2	1
	- 08 IW-8B-20080812-01	8/12/08	1400	S	BM	1	2	1
	- 09 IW-9B-20080813-01	8/13/08	1100	S	EW	1	2	1
	- 10 TB001-20080813-01	8/11/08	11:22	S	ZP	1	1	1

ANALYSIS	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<input checked="" type="checkbox"/> VOC 8260 High	<input type="checkbox"/> VOC 8260 Low
<input checked="" type="checkbox"/> Total Solids	

SAMPLE HANDLING	
<input type="checkbox"/> Done	<input checked="" type="checkbox"/> Not needed
<input type="checkbox"/> Lab to do	<input type="checkbox"/> Lab to do
<input type="checkbox"/> Preservation	<input type="checkbox"/> Lab to do

Container Type	Preservative
V	V
F	A

Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	08/13/08 1330	<i>[Signature]</i>	8/13/08 1330
	8/13/08 14:40		8/13/08 17:40

**PLEASE ANSWER QUESTIONS ABOVE!**

**IS YOUR PROJECT MA MCP or CT RCP?**

FORM NO: 01-01 (rev. 10-OCT-05)

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 Payment Terms. See reverse side.



# CHAIN OF CUSTODY

PAGE 2 of 2



Westborough, MA    Mansfield, MA  
 TEL: 508-898-9220    TEL: 508-822-9300  
 FAX: 508-898-9193    FAX: 508-822-3288

### Project Information

Project Name: WAYMON WAYMOND  
 Project Location: WAYMOND, MA  
 Project #: 0079387  
 Project Manager: JASON FLATTERY  
 ALPHA Quote #:  
 Turn-Around Time

### Client Information

Client: ERM-New England  
 Address: 399 Boylston Street, 6th Floor  
 Boston, MA 02116  
 Phone: 617-267-8377  
 Fax: 617-267-6447  
 Email: JASON.FLATTERY@erm.com

Project Manager: JASON FLATTERY  
 ALPHA Quote #:  
 Turn-Around Time  
 Standard     Rush (ONLY IF PRE-APPROVED)

Due Date: 8/20/05 Time:  
 Other Project Specific Requirements/Comments/Detection Limits:

EMAIL PLEASE

Date Rec'd in Lab: 8/13/05

ALPHA Job #: L0811944

### Report Information Data Deliverables

FAX     EMAIL  
 ADDEX     Add'l Deliverables

### Billing Information

Same as Client info

PO #:

### Regulatory Requirements/Report Limits

State/Fed Program: MCP1

### MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes     No    Are MCP Analytical Methods Required?  
 Yes     No    Are CT RCP (Reasonable Confidence Protocols) Required?

### ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	State/Fed Program	Criteria	Sample Specific Comments
<del>11944 - 10</del>	<del>TR-002-20080813-01</del>	<del>8/11/05</del>	<del>11:35</del>	<del>S</del>	<del>ZP</del>	<del>VOC</del>	<del>8260 HIGH</del>	<del>1</del>

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

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP OR CT RCP?

Container Type	Relinquished By:	Date/Time	Received By:	Date/Time
<u>V</u>	<u>[Signature]</u>	<u>8/13/05 13:30</u>	<u>Don Soule</u>	<u>8/13/05 13:50</u>
<u>W/D</u>	<u>[Signature]</u>	<u>8/13/05 17:40</u>	<u>[Signature]</u>	<u>8/13/05 19:40</u>

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 Payment Terms.



## ANALYTICAL REPORT

Lab Number:	L0812109
Client:	ERM-New England 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Project Name:	RAYTHEON-WAYLAND
Project Number:	0079387
Report Date:	08/21/08

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.

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



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0812109-01	IW-4-A-20080814-01	WAYLAND, MA
L0812109-02	IW-4-B-20080814-01	WAYLAND, MA
L0812109-03	IW-5-A-20080814-01	WAYLAND, MA
L0812109-04	IW-5-B-20080814-01	WAYLAND, MA
L0812109-05	MW-560-A20080815-01	WAYLAND, MA
L0812109-06	MW-560-B20080815-01	WAYLAND, MA
L0812109-07	TB-01-20080815-01	WAYLAND, MA
L0812109-08	TB-02-20080815-01	WAYLAND, MA

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

### 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, B, C & D is required for "Presumptive Certainty" status		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	N/A
A response to questions E and F is required for "Presumptive Certainty" status		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	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:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### 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.

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.

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.

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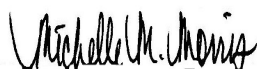
#### MCP Related Narratives

##### Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant data issues to discuss.

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:



Title: Technical Director/Representative

Date: 08/21/08

# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-01  
 Client ID: IW-4-A-20080814-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 13:29  
 Analyst: BN  
 Percent Solids: 82%

Date Collected: 08/14/08 09:00  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	12	1
1,1-Dichloroethane	ND		ug/kg	1.7	1
Chloroform	ND		ug/kg	1.7	1
Carbon tetrachloride	ND		ug/kg	1.2	1
1,2-Dichloropropane	ND		ug/kg	4.0	1
Dibromochloromethane	ND		ug/kg	1.2	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	1
Tetrachloroethene	ND		ug/kg	1.2	1
Chlorobenzene	ND		ug/kg	1.2	1
Trichlorofluoromethane	ND		ug/kg	5.8	1
1,2-Dichloroethane	ND		ug/kg	1.2	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	1
Bromodichloromethane	ND		ug/kg	1.2	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	1
1,1-Dichloropropene	ND		ug/kg	5.8	1
Bromoform	ND		ug/kg	4.6	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	1
Benzene	ND		ug/kg	1.2	1
Toluene	ND		ug/kg	1.7	1
Ethylbenzene	ND		ug/kg	1.2	1
Chloromethane	ND		ug/kg	5.8	1
Bromomethane	ND		ug/kg	2.3	1
Vinyl chloride	ND		ug/kg	2.3	1
Chloroethane	ND		ug/kg	2.3	1
1,1-Dichloroethene	ND		ug/kg	1.2	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	1
Trichloroethene	ND		ug/kg	1.2	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	1



Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-01

Date Collected: 08/14/08 09:00

Client ID: IW-4-A-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.8	1
Methyl tert butyl ether	ND		ug/kg	2.3	1
p/m-Xylene	ND		ug/kg	2.3	1
o-Xylene	ND		ug/kg	2.3	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	1
Dibromomethane	ND		ug/kg	12	1
1,2,3-Trichloropropane	ND		ug/kg	12	1
Styrene	ND		ug/kg	2.3	1
Dichlorodifluoromethane	ND		ug/kg	12	1
Acetone	ND		ug/kg	12	1
Carbon disulfide	ND		ug/kg	58	1
2-Butanone	ND		ug/kg	12	1
4-Methyl-2-pentanone	ND		ug/kg	12	1
2-Hexanone	ND		ug/kg	12	1
Bromochloromethane	ND		ug/kg	5.8	1
Tetrahydrofuran	ND		ug/kg	23	1
2,2-Dichloropropane	ND		ug/kg	5.8	1
1,2-Dibromoethane	ND		ug/kg	4.6	1
1,3-Dichloropropane	ND		ug/kg	5.8	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	1
Bromobenzene	ND		ug/kg	5.8	1
n-Butylbenzene	ND		ug/kg	1.2	1
sec-Butylbenzene	ND		ug/kg	1.2	1
tert-Butylbenzene	ND		ug/kg	5.8	1
o-Chlorotoluene	ND		ug/kg	5.8	1
p-Chlorotoluene	ND		ug/kg	5.8	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	1
Hexachlorobutadiene	ND		ug/kg	5.8	1
Isopropylbenzene	ND		ug/kg	1.2	1
p-Isopropyltoluene	ND		ug/kg	1.2	1
Naphthalene	ND		ug/kg	5.8	1
n-Propylbenzene	ND		ug/kg	1.2	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	1
Ethyl ether	ND		ug/kg	5.8	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-01

Date Collected: 08/14/08 09:00

Client ID: IW-4-A-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.6	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.6	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.6	1
1,4-Dioxane	ND		ug/kg	580	1

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

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-02  
 Client ID: IW-4-B-20080814-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 14:05  
 Analyst: BN  
 Percent Solids: 72%

Date Collected: 08/14/08 09:20  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	13	1
1,1-Dichloroethane	ND		ug/kg	2.0	1
Chloroform	ND		ug/kg	2.0	1
Carbon tetrachloride	ND		ug/kg	1.3	1
1,2-Dichloropropane	ND		ug/kg	4.7	1
Dibromochloromethane	ND		ug/kg	1.3	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	1
Tetrachloroethene	ND		ug/kg	1.3	1
Chlorobenzene	ND		ug/kg	1.3	1
Trichlorofluoromethane	ND		ug/kg	6.7	1
1,2-Dichloroethane	ND		ug/kg	1.3	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	1
Bromodichloromethane	ND		ug/kg	1.3	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	1
1,1-Dichloropropene	ND		ug/kg	6.7	1
Bromoform	ND		ug/kg	5.3	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	1
Benzene	ND		ug/kg	1.3	1
Toluene	ND		ug/kg	2.0	1
Ethylbenzene	ND		ug/kg	1.3	1
Chloromethane	ND		ug/kg	6.7	1
Bromomethane	ND		ug/kg	2.7	1
Vinyl chloride	ND		ug/kg	2.7	1
Chloroethane	ND		ug/kg	2.7	1
1,1-Dichloroethene	ND		ug/kg	1.3	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	1
Trichloroethene	ND		ug/kg	1.3	1
1,2-Dichlorobenzene	ND		ug/kg	6.7	1
1,3-Dichlorobenzene	ND		ug/kg	6.7	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-02

Date Collected: 08/14/08 09:20

Client ID: IW-4-B-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.7	1
Methyl tert butyl ether	ND		ug/kg	2.7	1
p/m-Xylene	ND		ug/kg	2.7	1
o-Xylene	ND		ug/kg	2.7	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	1
Dibromomethane	ND		ug/kg	13	1
1,2,3-Trichloropropane	ND		ug/kg	13	1
Styrene	ND		ug/kg	2.7	1
Dichlorodifluoromethane	ND		ug/kg	13	1
Acetone	ND		ug/kg	13	1
Carbon disulfide	ND		ug/kg	67	1
2-Butanone	ND		ug/kg	13	1
4-Methyl-2-pentanone	ND		ug/kg	13	1
2-Hexanone	ND		ug/kg	13	1
Bromochloromethane	ND		ug/kg	6.7	1
Tetrahydrofuran	ND		ug/kg	27	1
2,2-Dichloropropane	ND		ug/kg	6.7	1
1,2-Dibromoethane	ND		ug/kg	5.3	1
1,3-Dichloropropane	ND		ug/kg	6.7	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	1
Bromobenzene	ND		ug/kg	6.7	1
n-Butylbenzene	ND		ug/kg	1.3	1
sec-Butylbenzene	ND		ug/kg	1.3	1
tert-Butylbenzene	ND		ug/kg	6.7	1
o-Chlorotoluene	ND		ug/kg	6.7	1
p-Chlorotoluene	ND		ug/kg	6.7	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.7	1
Hexachlorobutadiene	ND		ug/kg	6.7	1
Isopropylbenzene	ND		ug/kg	1.3	1
p-Isopropyltoluene	ND		ug/kg	1.3	1
Naphthalene	ND		ug/kg	6.7	1
n-Propylbenzene	ND		ug/kg	1.3	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.7	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.7	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.7	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.7	1
Ethyl ether	ND		ug/kg	6.7	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-02

Date Collected: 08/14/08 09:20

Client ID: IW-4-B-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.3	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.3	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.3	1
1,4-Dioxane	ND		ug/kg	670	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-03  
 Client ID: IW-5-A-20080814-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 14:41  
 Analyst: BN  
 Percent Solids: 84%

Date Collected: 08/14/08 14:00  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	11	1
1,1-Dichloroethane	ND		ug/kg	1.7	1
Chloroform	ND		ug/kg	1.7	1
Carbon tetrachloride	ND		ug/kg	1.1	1
1,2-Dichloropropane	ND		ug/kg	3.9	1
Dibromochloromethane	ND		ug/kg	1.1	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	1
Tetrachloroethene	ND		ug/kg	1.1	1
Chlorobenzene	ND		ug/kg	1.1	1
Trichlorofluoromethane	ND		ug/kg	5.6	1
1,2-Dichloroethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	1
Bromodichloromethane	ND		ug/kg	1.1	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	1
1,1-Dichloropropene	ND		ug/kg	5.6	1
Bromoform	ND		ug/kg	4.5	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	1
Benzene	ND		ug/kg	1.1	1
Toluene	ND		ug/kg	1.7	1
Ethylbenzene	ND		ug/kg	1.1	1
Chloromethane	ND		ug/kg	5.6	1
Bromomethane	ND		ug/kg	2.2	1
Vinyl chloride	ND		ug/kg	2.2	1
Chloroethane	ND		ug/kg	2.2	1
1,1-Dichloroethene	ND		ug/kg	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	1
Trichloroethene	ND		ug/kg	1.1	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-03

Date Collected: 08/14/08 14:00

Client ID: IW-5-A-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.6	1
Methyl tert butyl ether	ND		ug/kg	2.2	1
p/m-Xylene	ND		ug/kg	2.2	1
o-Xylene	ND		ug/kg	2.2	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	1
Dibromomethane	ND		ug/kg	11	1
1,2,3-Trichloropropane	ND		ug/kg	11	1
Styrene	ND		ug/kg	2.2	1
Dichlorodifluoromethane	ND		ug/kg	11	1
Acetone	ND		ug/kg	11	1
Carbon disulfide	ND		ug/kg	56	1
2-Butanone	ND		ug/kg	11	1
4-Methyl-2-pentanone	ND		ug/kg	11	1
2-Hexanone	ND		ug/kg	11	1
Bromochloromethane	ND		ug/kg	5.6	1
Tetrahydrofuran	ND		ug/kg	22	1
2,2-Dichloropropane	ND		ug/kg	5.6	1
1,2-Dibromoethane	ND		ug/kg	4.5	1
1,3-Dichloropropane	ND		ug/kg	5.6	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Bromobenzene	ND		ug/kg	5.6	1
n-Butylbenzene	ND		ug/kg	1.1	1
sec-Butylbenzene	ND		ug/kg	1.1	1
tert-Butylbenzene	ND		ug/kg	5.6	1
o-Chlorotoluene	ND		ug/kg	5.6	1
p-Chlorotoluene	ND		ug/kg	5.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	1
Isopropylbenzene	ND		ug/kg	1.1	1
p-Isopropyltoluene	ND		ug/kg	1.1	1
Naphthalene	ND		ug/kg	5.6	1
n-Propylbenzene	ND		ug/kg	1.1	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1
Ethyl ether	ND		ug/kg	5.6	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-03

Date Collected: 08/14/08 14:00

Client ID: IW-5-A-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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**Volatile Organics by MCP 8260B/5035-Soil Analysis**

Isopropyl Ether	ND		ug/kg	4.5	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.5	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.5	1
1,4-Dioxane	ND		ug/kg	560	1

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



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-04  
 Client ID: IW-5-B-20080814-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 15:17  
 Analyst: BN  
 Percent Solids: 73%

Date Collected: 08/14/08 14:30  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	12	1
1,1-Dichloroethane	ND		ug/kg	1.8	1
Chloroform	ND		ug/kg	1.8	1
Carbon tetrachloride	ND		ug/kg	1.2	1
1,2-Dichloropropane	ND		ug/kg	4.2	1
Dibromochloromethane	ND		ug/kg	1.2	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	1
Tetrachloroethene	ND		ug/kg	1.2	1
Chlorobenzene	ND		ug/kg	1.2	1
Trichlorofluoromethane	ND		ug/kg	6.0	1
1,2-Dichloroethane	ND		ug/kg	1.2	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	1
Bromodichloromethane	ND		ug/kg	1.2	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	1
1,1-Dichloropropene	ND		ug/kg	6.0	1
Bromoform	ND		ug/kg	4.8	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	1
Benzene	ND		ug/kg	1.2	1
Toluene	ND		ug/kg	1.8	1
Ethylbenzene	ND		ug/kg	1.2	1
Chloromethane	ND		ug/kg	6.0	1
Bromomethane	ND		ug/kg	2.4	1
Vinyl chloride	ND		ug/kg	2.4	1
Chloroethane	ND		ug/kg	2.4	1
1,1-Dichloroethene	ND		ug/kg	1.2	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	1
Trichloroethene	ND		ug/kg	1.2	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	1
1,3-Dichlorobenzene	ND		ug/kg	6.0	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-04  
 Client ID: IW-5-B-20080814-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/14/08 14:30  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.0	1
Methyl tert butyl ether	ND		ug/kg	2.4	1
p/m-Xylene	ND		ug/kg	2.4	1
o-Xylene	ND		ug/kg	2.4	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	1
Dibromomethane	ND		ug/kg	12	1
1,2,3-Trichloropropane	ND		ug/kg	12	1
Styrene	ND		ug/kg	2.4	1
Dichlorodifluoromethane	ND		ug/kg	12	1
Acetone	ND		ug/kg	12	1
Carbon disulfide	ND		ug/kg	60	1
2-Butanone	ND		ug/kg	12	1
4-Methyl-2-pentanone	ND		ug/kg	12	1
2-Hexanone	ND		ug/kg	12	1
Bromochloromethane	ND		ug/kg	6.0	1
Tetrahydrofuran	ND		ug/kg	24	1
2,2-Dichloropropane	ND		ug/kg	6.0	1
1,2-Dibromoethane	ND		ug/kg	4.8	1
1,3-Dichloropropane	ND		ug/kg	6.0	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	1
Bromobenzene	ND		ug/kg	6.0	1
n-Butylbenzene	ND		ug/kg	1.2	1
sec-Butylbenzene	ND		ug/kg	1.2	1
tert-Butylbenzene	ND		ug/kg	6.0	1
o-Chlorotoluene	ND		ug/kg	6.0	1
p-Chlorotoluene	ND		ug/kg	6.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	1
Hexachlorobutadiene	ND		ug/kg	6.0	1
Isopropylbenzene	ND		ug/kg	1.2	1
p-Isopropyltoluene	ND		ug/kg	1.2	1
Naphthalene	ND		ug/kg	6.0	1
n-Propylbenzene	ND		ug/kg	1.2	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	1
Ethyl ether	ND		ug/kg	6.0	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-04

Date Collected: 08/14/08 14:30

Client ID: IW-5-B-20080814-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.8	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.8	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.8	1
1,4-Dioxane	ND		ug/kg	600	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-05  
 Client ID: MW-560-A20080815-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 15:53  
 Analyst: BN  
 Percent Solids: 86%

Date Collected: 08/15/08 10:00  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	11	1
1,1-Dichloroethane	ND		ug/kg	1.7	1
Chloroform	ND		ug/kg	1.7	1
Carbon tetrachloride	ND		ug/kg	1.1	1
1,2-Dichloropropane	ND		ug/kg	3.9	1
Dibromochloromethane	ND		ug/kg	1.1	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	1
Tetrachloroethene	ND		ug/kg	1.1	1
Chlorobenzene	ND		ug/kg	1.1	1
Trichlorofluoromethane	ND		ug/kg	5.6	1
1,2-Dichloroethane	ND		ug/kg	1.1	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	1
Bromodichloromethane	ND		ug/kg	1.1	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	1
1,1-Dichloropropene	ND		ug/kg	5.6	1
Bromoform	ND		ug/kg	4.5	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	1
Benzene	ND		ug/kg	1.1	1
Toluene	ND		ug/kg	1.7	1
Ethylbenzene	ND		ug/kg	1.1	1
Chloromethane	ND		ug/kg	5.6	1
Bromomethane	ND		ug/kg	2.2	1
Vinyl chloride	ND		ug/kg	2.2	1
Chloroethane	ND		ug/kg	2.2	1
1,1-Dichloroethene	ND		ug/kg	1.1	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	1
Trichloroethene	ND		ug/kg	1.1	1
1,2-Dichlorobenzene	ND		ug/kg	5.6	1
1,3-Dichlorobenzene	ND		ug/kg	5.6	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-05  
 Client ID: MW-560-A20080815-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/15/08 10:00  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	5.6	1
Methyl tert butyl ether	ND		ug/kg	2.2	1
p/m-Xylene	ND		ug/kg	2.2	1
o-Xylene	ND		ug/kg	2.2	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	1
Dibromomethane	ND		ug/kg	11	1
1,2,3-Trichloropropane	ND		ug/kg	11	1
Styrene	ND		ug/kg	2.2	1
Dichlorodifluoromethane	ND		ug/kg	11	1
Acetone	17		ug/kg	11	1
Carbon disulfide	ND		ug/kg	56	1
2-Butanone	ND		ug/kg	11	1
4-Methyl-2-pentanone	ND		ug/kg	11	1
2-Hexanone	ND		ug/kg	11	1
Bromochloromethane	ND		ug/kg	5.6	1
Tetrahydrofuran	ND		ug/kg	22	1
2,2-Dichloropropane	ND		ug/kg	5.6	1
1,2-Dibromoethane	ND		ug/kg	4.5	1
1,3-Dichloropropane	ND		ug/kg	5.6	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	1
Bromobenzene	ND		ug/kg	5.6	1
n-Butylbenzene	ND		ug/kg	1.1	1
sec-Butylbenzene	ND		ug/kg	1.1	1
tert-Butylbenzene	ND		ug/kg	5.6	1
o-Chlorotoluene	ND		ug/kg	5.6	1
p-Chlorotoluene	ND		ug/kg	5.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.6	1
Hexachlorobutadiene	ND		ug/kg	5.6	1
Isopropylbenzene	ND		ug/kg	1.1	1
p-Isopropyltoluene	ND		ug/kg	1.1	1
Naphthalene	ND		ug/kg	5.6	1
n-Propylbenzene	ND		ug/kg	1.1	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.6	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.6	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.6	1
Ethyl ether	ND		ug/kg	5.6	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-05

Date Collected: 08/15/08 10:00

Client ID: MW-560-A20080815-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	4.5	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.5	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.5	1
1,4-Dioxane	ND		ug/kg	560	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	105		70-130

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-06  
 Client ID: MW-560-B20080815-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil  
 Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 16:29  
 Analyst: BN  
 Percent Solids: 71%

Date Collected: 08/15/08 10:30  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	14	1
1,1-Dichloroethane	ND		ug/kg	2.0	1
Chloroform	ND		ug/kg	2.0	1
Carbon tetrachloride	ND		ug/kg	1.4	1
1,2-Dichloropropane	ND		ug/kg	4.7	1
Dibromochloromethane	ND		ug/kg	1.4	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	1
Tetrachloroethene	ND		ug/kg	1.4	1
Chlorobenzene	ND		ug/kg	1.4	1
Trichlorofluoromethane	ND		ug/kg	6.8	1
1,2-Dichloroethane	ND		ug/kg	1.4	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	1
Bromodichloromethane	ND		ug/kg	1.4	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	1
1,1-Dichloropropene	ND		ug/kg	6.8	1
Bromoform	ND		ug/kg	5.4	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	1
Benzene	ND		ug/kg	1.4	1
Toluene	ND		ug/kg	2.0	1
Ethylbenzene	ND		ug/kg	1.4	1
Chloromethane	ND		ug/kg	6.8	1
Bromomethane	ND		ug/kg	2.7	1
Vinyl chloride	ND		ug/kg	2.7	1
Chloroethane	ND		ug/kg	2.7	1
1,1-Dichloroethene	ND		ug/kg	1.4	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	1
Trichloroethene	ND		ug/kg	1.4	1
1,2-Dichlorobenzene	ND		ug/kg	6.8	1
1,3-Dichlorobenzene	ND		ug/kg	6.8	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-06  
 Client ID: MW-560-B20080815-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/15/08 10:30  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	6.8	1
Methyl tert butyl ether	ND		ug/kg	2.7	1
p/m-Xylene	ND		ug/kg	2.7	1
o-Xylene	ND		ug/kg	2.7	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	1
Dibromomethane	ND		ug/kg	14	1
1,2,3-Trichloropropane	ND		ug/kg	14	1
Styrene	ND		ug/kg	2.7	1
Dichlorodifluoromethane	ND		ug/kg	14	1
Acetone	ND		ug/kg	14	1
Carbon disulfide	ND		ug/kg	68	1
2-Butanone	ND		ug/kg	14	1
4-Methyl-2-pentanone	ND		ug/kg	14	1
2-Hexanone	ND		ug/kg	14	1
Bromochloromethane	ND		ug/kg	6.8	1
Tetrahydrofuran	ND		ug/kg	27	1
2,2-Dichloropropane	ND		ug/kg	6.8	1
1,2-Dibromoethane	ND		ug/kg	5.4	1
1,3-Dichloropropane	ND		ug/kg	6.8	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	1
Bromobenzene	ND		ug/kg	6.8	1
n-Butylbenzene	ND		ug/kg	1.4	1
sec-Butylbenzene	ND		ug/kg	1.4	1
tert-Butylbenzene	ND		ug/kg	6.8	1
o-Chlorotoluene	ND		ug/kg	6.8	1
p-Chlorotoluene	ND		ug/kg	6.8	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.8	1
Hexachlorobutadiene	ND		ug/kg	6.8	1
Isopropylbenzene	ND		ug/kg	1.4	1
p-Isopropyltoluene	ND		ug/kg	1.4	1
Naphthalene	ND		ug/kg	6.8	1
n-Propylbenzene	ND		ug/kg	1.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.8	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.8	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.8	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.8	1
Ethyl ether	ND		ug/kg	6.8	1



**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-06

Date Collected: 08/15/08 10:30

Client ID: MW-560-B20080815-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	5.4	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	5.4	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	5.4	1
1,4-Dioxane	ND		ug/kg	680	1

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

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID:	L0812109-08	Date Collected:	08/15/08 09:00
Client ID:	TB-02-20080815-01	Date Received:	08/15/08
Sample Location:	WAYLAND, MA	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	60,8260B		
Analytical Date:	08/19/08 10:10		
Analyst:	BN		
Percent Solids:	Results are reported on an 'AS RECEIVED' basis.		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Methylene chloride	ND		ug/kg	500	1
1,1-Dichloroethane	ND		ug/kg	75	1
Chloroform	ND		ug/kg	75	1
Carbon tetrachloride	ND		ug/kg	50	1
1,2-Dichloropropane	ND		ug/kg	180	1
Dibromochloromethane	ND		ug/kg	50	1
1,1,2-Trichloroethane	ND		ug/kg	75	1
Tetrachloroethene	ND		ug/kg	50	1
Chlorobenzene	ND		ug/kg	50	1
Trichlorofluoromethane	ND		ug/kg	250	1
1,2-Dichloroethane	ND		ug/kg	50	1
1,1,1-Trichloroethane	ND		ug/kg	50	1
Bromodichloromethane	ND		ug/kg	50	1
trans-1,3-Dichloropropene	ND		ug/kg	50	1
cis-1,3-Dichloropropene	ND		ug/kg	50	1
1,1-Dichloropropene	ND		ug/kg	250	1
Bromoform	ND		ug/kg	200	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	50	1
Benzene	ND		ug/kg	50	1
Toluene	ND		ug/kg	75	1
Ethylbenzene	ND		ug/kg	50	1
Chloromethane	ND		ug/kg	250	1
Bromomethane	ND		ug/kg	100	1
Vinyl chloride	ND		ug/kg	100	1
Chloroethane	ND		ug/kg	100	1
1,1-Dichloroethene	ND		ug/kg	50	1
trans-1,2-Dichloroethene	ND		ug/kg	75	1
Trichloroethene	ND		ug/kg	50	1
1,2-Dichlorobenzene	ND		ug/kg	250	1
1,3-Dichlorobenzene	ND		ug/kg	250	1

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-08

Date Collected: 08/15/08 09:00

Client ID: TB-02-20080815-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
1,4-Dichlorobenzene	ND		ug/kg	250	1
Methyl tert butyl ether	ND		ug/kg	100	1
p/m-Xylene	ND		ug/kg	100	1
o-Xylene	ND		ug/kg	100	1
cis-1,2-Dichloroethene	ND		ug/kg	50	1
Dibromomethane	ND		ug/kg	500	1
1,2,3-Trichloropropane	ND		ug/kg	500	1
Styrene	ND		ug/kg	100	1
Dichlorodifluoromethane	ND		ug/kg	500	1
Acetone	ND		ug/kg	500	1
Carbon disulfide	ND		ug/kg	2500	1
2-Butanone	ND		ug/kg	500	1
4-Methyl-2-pentanone	ND		ug/kg	500	1
2-Hexanone	ND		ug/kg	500	1
Bromochloromethane	ND		ug/kg	250	1
Tetrahydrofuran	ND		ug/kg	1000	1
2,2-Dichloropropane	ND		ug/kg	250	1
1,2-Dibromoethane	ND		ug/kg	200	1
1,3-Dichloropropane	ND		ug/kg	250	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	50	1
Bromobenzene	ND		ug/kg	250	1
n-Butylbenzene	ND		ug/kg	50	1
sec-Butylbenzene	ND		ug/kg	50	1
tert-Butylbenzene	ND		ug/kg	250	1
o-Chlorotoluene	ND		ug/kg	250	1
p-Chlorotoluene	ND		ug/kg	250	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	1
Hexachlorobutadiene	ND		ug/kg	250	1
Isopropylbenzene	ND		ug/kg	50	1
p-Isopropyltoluene	ND		ug/kg	50	1
Naphthalene	ND		ug/kg	250	1
n-Propylbenzene	ND		ug/kg	50	1
1,2,3-Trichlorobenzene	ND		ug/kg	250	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	1
1,3,5-Trimethylbenzene	ND		ug/kg	250	1
1,2,4-Trimethylbenzene	ND		ug/kg	250	1
Ethyl ether	ND		ug/kg	250	1

**Project Name:** RAYTHEON-WAYLAND**Lab Number:** L0812109**Project Number:** 0079387**Report Date:** 08/21/08**SAMPLE RESULTS**

Lab ID: L0812109-08

Date Collected: 08/15/08 09:00

Client ID: TB-02-20080815-01

Date Received: 08/15/08

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B/5035-Soil Analysis</b>					
Isopropyl Ether	ND		ug/kg	200	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	200	1
1,4-Dioxane	ND		ug/kg	25000	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/18/08 10:29  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332873-6				
Methylene chloride	ND		ug/kg	10
1,1-Dichloroethane	ND		ug/kg	1.5
Chloroform	ND		ug/kg	1.5
Carbon tetrachloride	ND		ug/kg	1.0
1,2-Dichloropropane	ND		ug/kg	3.5
Dibromochloromethane	ND		ug/kg	1.0
1,1,2-Trichloroethane	ND		ug/kg	1.5
Tetrachloroethene	ND		ug/kg	1.0
Chlorobenzene	ND		ug/kg	1.0
Trichlorofluoromethane	ND		ug/kg	5.0
1,2-Dichloroethane	ND		ug/kg	1.0
1,1,1-Trichloroethane	ND		ug/kg	1.0
Bromodichloromethane	ND		ug/kg	1.0
trans-1,3-Dichloropropene	ND		ug/kg	1.0
cis-1,3-Dichloropropene	ND		ug/kg	1.0
1,1-Dichloropropene	ND		ug/kg	5.0
Bromoform	ND		ug/kg	4.0
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0
Benzene	ND		ug/kg	1.0
Toluene	ND		ug/kg	1.5
Ethylbenzene	ND		ug/kg	1.0
Chloromethane	ND		ug/kg	5.0
Bromomethane	ND		ug/kg	2.0
Vinyl chloride	ND		ug/kg	2.0
Chloroethane	ND		ug/kg	2.0
1,1-Dichloroethene	ND		ug/kg	1.0
trans-1,2-Dichloroethene	ND		ug/kg	1.5
Trichloroethene	ND		ug/kg	1.0
1,2-Dichlorobenzene	ND		ug/kg	5.0
1,3-Dichlorobenzene	ND		ug/kg	5.0
1,4-Dichlorobenzene	ND		ug/kg	5.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/18/08 10:29  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332873-6				
Methyl tert butyl ether	ND		ug/kg	2.0
p/m-Xylene	ND		ug/kg	2.0
o-Xylene	ND		ug/kg	2.0
cis-1,2-Dichloroethene	ND		ug/kg	1.0
Dibromomethane	ND		ug/kg	10
1,2,3-Trichloropropane	ND		ug/kg	10
Styrene	ND		ug/kg	2.0
Dichlorodifluoromethane	ND		ug/kg	10
Acetone	ND		ug/kg	10
Carbon disulfide	ND		ug/kg	50
2-Butanone	ND		ug/kg	10
4-Methyl-2-pentanone	ND		ug/kg	10
2-Hexanone	ND		ug/kg	10
Bromochloromethane	ND		ug/kg	5.0
Tetrahydrofuran	ND		ug/kg	20
2,2-Dichloropropane	ND		ug/kg	5.0
1,2-Dibromoethane	ND		ug/kg	4.0
1,3-Dichloropropane	ND		ug/kg	5.0
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0
Bromobenzene	ND		ug/kg	5.0
n-Butylbenzene	ND		ug/kg	1.0
sec-Butylbenzene	ND		ug/kg	1.0
tert-Butylbenzene	ND		ug/kg	5.0
o-Chlorotoluene	ND		ug/kg	5.0
p-Chlorotoluene	ND		ug/kg	5.0
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0
Hexachlorobutadiene	ND		ug/kg	5.0
Isopropylbenzene	ND		ug/kg	1.0
p-Isopropyltoluene	ND		ug/kg	1.0
Naphthalene	ND		ug/kg	5.0
n-Propylbenzene	ND		ug/kg	1.0

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 60,8260B  
 Analytical Date: 08/18/08 10:29  
 Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 01-06 Batch: WG332873-6				
1,2,3-Trichlorobenzene	ND		ug/kg	5.0
1,2,4-Trichlorobenzene	ND		ug/kg	5.0
1,3,5-Trimethylbenzene	ND		ug/kg	5.0
1,2,4-Trimethylbenzene	ND		ug/kg	5.0
Ethyl ether	ND		ug/kg	5.0
Isopropyl Ether	ND		ug/kg	4.0
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0
1,4-Dioxane	ND		ug/kg	500

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

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/19/08 08:58  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 08 Batch: WG333051-6				
Methylene chloride	ND		ug/kg	500
1,1-Dichloroethane	ND		ug/kg	75
Chloroform	ND		ug/kg	75
Carbon tetrachloride	ND		ug/kg	50
1,2-Dichloropropane	ND		ug/kg	180
Dibromochloromethane	ND		ug/kg	50
1,1,2-Trichloroethane	ND		ug/kg	75
Tetrachloroethene	ND		ug/kg	50
Chlorobenzene	ND		ug/kg	50
Trichlorofluoromethane	ND		ug/kg	250
1,2-Dichloroethane	ND		ug/kg	50
1,1,1-Trichloroethane	ND		ug/kg	50
Bromodichloromethane	ND		ug/kg	50
trans-1,3-Dichloropropene	ND		ug/kg	50
cis-1,3-Dichloropropene	ND		ug/kg	50
1,1-Dichloropropene	ND		ug/kg	250
Bromoform	ND		ug/kg	200
1,1,2,2-Tetrachloroethane	ND		ug/kg	50
Benzene	ND		ug/kg	50
Toluene	ND		ug/kg	75
Ethylbenzene	ND		ug/kg	50
Chloromethane	ND		ug/kg	250
Bromomethane	ND		ug/kg	100
Vinyl chloride	ND		ug/kg	100
Chloroethane	ND		ug/kg	100
1,1-Dichloroethene	ND		ug/kg	50
trans-1,2-Dichloroethene	ND		ug/kg	75
Trichloroethene	ND		ug/kg	50
1,2-Dichlorobenzene	ND		ug/kg	250
1,3-Dichlorobenzene	ND		ug/kg	250
1,4-Dichlorobenzene	ND		ug/kg	250



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/19/08 08:58  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 08 Batch: WG333051-6				
Methyl tert butyl ether	ND		ug/kg	100
p/m-Xylene	ND		ug/kg	100
o-Xylene	ND		ug/kg	100
cis-1,2-Dichloroethene	ND		ug/kg	50
Dibromomethane	ND		ug/kg	500
1,2,3-Trichloropropane	ND		ug/kg	500
Styrene	ND		ug/kg	100
Dichlorodifluoromethane	ND		ug/kg	500
Acetone	ND		ug/kg	500
Carbon disulfide	ND		ug/kg	2500
2-Butanone	ND		ug/kg	500
4-Methyl-2-pentanone	ND		ug/kg	500
2-Hexanone	ND		ug/kg	500
Bromochloromethane	ND		ug/kg	250
Tetrahydrofuran	ND		ug/kg	1000
2,2-Dichloropropane	ND		ug/kg	250
1,2-Dibromoethane	ND		ug/kg	200
1,3-Dichloropropane	ND		ug/kg	250
1,1,1,2-Tetrachloroethane	ND		ug/kg	50
Bromobenzene	ND		ug/kg	250
n-Butylbenzene	ND		ug/kg	50
sec-Butylbenzene	ND		ug/kg	50
tert-Butylbenzene	ND		ug/kg	250
o-Chlorotoluene	ND		ug/kg	250
p-Chlorotoluene	ND		ug/kg	250
1,2-Dibromo-3-chloropropane	ND		ug/kg	250
Hexachlorobutadiene	ND		ug/kg	250
Isopropylbenzene	ND		ug/kg	50
p-Isopropyltoluene	ND		ug/kg	50
Naphthalene	ND		ug/kg	250
n-Propylbenzene	ND		ug/kg	50

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/19/08 08:58  
Analyst: BN

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B/5035-Soil Analysis for sample(s): 08 Batch: WG333051-6				
1,2,3-Trichlorobenzene	ND		ug/kg	250
1,2,4-Trichlorobenzene	ND		ug/kg	250
1,3,5-Trimethylbenzene	ND		ug/kg	250
1,2,4-Trimethylbenzene	ND		ug/kg	250
Ethyl ether	ND		ug/kg	250
Isopropyl Ether	ND		ug/kg	200
Ethyl-Tert-Butyl-Ether	ND		ug/kg	200
Tertiary-Amyl Methyl Ether	ND		ug/kg	200
1,4-Dioxane	ND		ug/kg	25000

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332873-4 WG332873-5					
Methylene chloride	100	96	70-130	4	25
1,1-Dichloroethane	103	97	70-130	6	25
Chloroform	100	98	70-130	2	25
Carbon tetrachloride	100	94	70-130	6	25
1,2-Dichloropropane	100	98	70-130	2	25
Dibromochloromethane	101	101	70-130	0	25
1,1,2-Trichloroethane	99	98	70-130	1	25
Tetrachloroethene	100	96	70-130	4	25
Chlorobenzene	99	97	70-130	2	25
Trichlorofluoromethane	99	92	70-130	7	25
1,2-Dichloroethane	97	96	70-130	1	25
1,1,1-Trichloroethane	98	94	70-130	4	25
Bromodichloromethane	98	96	70-130	2	25
trans-1,3-Dichloropropene	101	103	70-130	2	25
cis-1,3-Dichloropropene	102	101	70-130	1	25
1,1-Dichloropropene	99	96	70-130	3	25
Bromoform	92	96	70-130	4	50
1,1,2,2-Tetrachloroethane	99	106	70-130	7	25
Benzene	101	97	70-130	4	25
Toluene	100	97	70-130	3	25
Ethylbenzene	101	98	70-130	3	25

## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332873-4 WG332873-5					
Chloromethane	90	87	70-130	3	50
Bromomethane	94	92	70-130	2	50
Vinyl chloride	94	89	70-130	5	25
Chloroethane	100	95	70-130	5	25
1,1-Dichloroethene	97	90	70-130	7	25
trans-1,2-Dichloroethene	103	96	70-130	7	25
Trichloroethene	101	96	70-130	5	25
1,2-Dichlorobenzene	101	98	70-130	3	25
1,3-Dichlorobenzene	100	98	70-130	2	25
1,4-Dichlorobenzene	101	98	70-130	3	25
Methyl tert butyl ether	93	96	70-130	3	25
p/m-Xylene	102	99	70-130	3	25
o-Xylene	103	101	70-130	2	25
cis-1,2-Dichloroethene	99	96	70-130	3	25
Dibromomethane	94	94	70-130	0	25
1,2,3-Trichloropropane	110	114	70-130	4	25
Styrene	104	102	70-130	2	25
Dichlorodifluoromethane	77	71	70-130	8	50
Acetone	104	104	70-130	0	50
Carbon disulfide	83	79	70-130	5	25
2-Butanone	103	113	70-130	9	50

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332873-4 WG332873-5					
4-Methyl-2-pentanone	110	115	70-130	4	50
2-Hexanone	104	116	70-130	11	50
Bromochloromethane	98	95	70-130	3	25
Tetrahydrofuran	97	101	70-130	4	25
2,2-Dichloropropane	103	103	70-130	0	50
1,2-Dibromoethane	98	100	70-130	2	25
1,3-Dichloropropane	97	101	70-130	4	25
1,1,1,2-Tetrachloroethane	103	98	70-130	5	25
Bromobenzene	98	98	70-130	0	25
n-Butylbenzene	103	101	70-130	2	25
sec-Butylbenzene	104	99	70-130	5	25
tert-Butylbenzene	100	97	70-130	3	25
o-Chlorotoluene	101	100	70-130	1	25
p-Chlorotoluene	102	101	70-130	1	25
1,2-Dibromo-3-chloropropane	100	103	70-130	3	50
Hexachlorobutadiene	99	93	70-130	6	25
Isopropylbenzene	122	119	70-130	2	25
p-Isopropyltoluene	106	103	70-130	3	25
Naphthalene	99	105	70-130	6	25
n-Propylbenzene	104	100	70-130	4	25
1,2,3-Trichlorobenzene	102	103	70-130	1	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 01-06 Batch: WG332873-4 WG332873-5					
1,2,4-Trichlorobenzene	103	102	70-130	1	25
1,3,5-Trimethylbenzene	104	100	70-130	4	25
1,2,4-Trimethylbenzene	102	101	70-130	1	25
Ethyl ether	83	82	70-130	1	25
Isopropyl Ether	93	94	70-130	1	25
Ethyl-Tert-Butyl-Ether	100	100	70-130	0	25
Tertiary-Amyl Methyl Ether	98	98	70-130	0	25
1,4-Dioxane	95	98	70-130	3	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		102		70-130
Toluene-d8	101		103		70-130
4-Bromofluorobenzene	102		104		70-130
Dibromofluoromethane	101		98		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 08 Batch: WG333051-4 WG333051-5					
Methylene chloride	95	87	70-130	9	25
1,1-Dichloroethane	94	93	70-130	1	25
Chloroform	94	94	70-130	0	25
Carbon tetrachloride	88	85	70-130	3	25
1,2-Dichloropropane	96	96	70-130	0	25
Dibromochloromethane	94	94	70-130	0	25
1,1,2-Trichloroethane	93	92	70-130	1	25
Tetrachloroethene	88	84	70-130	5	25
Chlorobenzene	91	90	70-130	1	25
Trichlorofluoromethane	90	88	70-130	2	25
1,2-Dichloroethane	93	94	70-130	1	25
1,1,1-Trichloroethane	90	87	70-130	3	25
Bromodichloromethane	94	94	70-130	0	25
trans-1,3-Dichloropropene	94	96	70-130	2	25
cis-1,3-Dichloropropene	96	100	70-130	4	25
1,1-Dichloropropene	88	91	70-130	3	25
Bromoform	89	91	70-130	2	50
1,1,2,2-Tetrachloroethane	97	101	70-130	4	25
Benzene	94	93	70-130	1	25
Toluene	90	88	70-130	2	25
Ethylbenzene	92	89	70-130	3	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 08 Batch: WG333051-4 WG333051-5					
Chloromethane	81	82	70-130	1	50
Bromomethane	94	85	70-130	10	50
Vinyl chloride	84	84	70-130	0	25
Chloroethane	89	85	70-130	5	25
1,1-Dichloroethene	87	87	70-130	0	25
trans-1,2-Dichloroethene	93	93	70-130	0	25
Trichloroethene	91	90	70-130	1	25
1,2-Dichlorobenzene	95	94	70-130	1	25
1,3-Dichlorobenzene	94	93	70-130	1	25
1,4-Dichlorobenzene	95	93	70-130	2	25
Methyl tert butyl ether	84	88	70-130	5	25
p/m-Xylene	92	90	70-130	2	25
o-Xylene	91	88	70-130	3	25
cis-1,2-Dichloroethene	94	93	70-130	1	25
Dibromomethane	95	99	70-130	4	25
1,2,3-Trichloropropane	107	111	70-130	4	25
Styrene	92	90	70-130	2	25
Dichlorodifluoromethane	73	70	70-130	4	50
Acetone	102	104	70-130	2	50
Carbon disulfide	72	70	70-130	3	25
2-Butanone	97	112	70-130	14	50



## Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 08 Batch: WG333051-4 WG333051-5					
4-Methyl-2-pentanone	105	110	70-130	5	50
2-Hexanone	95	105	70-130	10	50
Bromochloromethane	98	96	70-130	2	25
Tetrahydrofuran	86	92	70-130	7	25
2,2-Dichloropropane	93	91	70-130	2	50
1,2-Dibromoethane	94	98	70-130	4	25
1,3-Dichloropropane	91	94	70-130	3	25
1,1,1,2-Tetrachloroethane	90	93	70-130	3	25
Bromobenzene	94	93	70-130	1	25
n-Butylbenzene	94	91	70-130	3	25
sec-Butylbenzene	94	90	70-130	4	25
tert-Butylbenzene	92	90	70-130	2	25
o-Chlorotoluene	93	91	70-130	2	25
p-Chlorotoluene	96	91	70-130	5	25
1,2-Dibromo-3-chloropropane	95	96	70-130	1	50
Hexachlorobutadiene	89	85	70-130	5	25
Isopropylbenzene	112	109	70-130	3	25
p-Isopropyltoluene	98	94	70-130	4	25
Naphthalene	95	95	70-130	0	25
n-Propylbenzene	95	90	70-130	5	25
1,2,3-Trichlorobenzene	98	98	70-130	0	25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** RAYTHEON-WAYLAND

**Lab Number:** L0812109

**Project Number:** 0079387

**Report Date:** 08/21/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B/5035-Soil Analysis Associated sample(s): 08 Batch: WG333051-4 WG333051-5					
1,2,4-Trichlorobenzene	99	95	70-130	4	25
1,3,5-Trimethylbenzene	95	91	70-130	4	25
1,2,4-Trimethylbenzene	95	92	70-130	3	25
Ethyl ether	71	74	70-130	4	25
Isopropyl Ether	81	83	70-130	2	25
Ethyl-Tert-Butyl-Ether	88	92	70-130	4	25
Tertiary-Amyl Methyl Ether	88	91	70-130	3	25
1,4-Dioxane	103	111	70-130	7	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		106		70-130
Toluene-d8	100		103		70-130
4-Bromofluorobenzene	101		94		70-130
Dibromofluoromethane	102		107		70-130

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### SAMPLE RESULTS

**Lab ID:** L0812109-01  
**Client ID:** IW-4-A-20080814-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/14/08 09:00  
**Date Received:** 08/15/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	82		%	0.10	1	-	08/18/08 17:10	30,2540G	SD



Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## SAMPLE RESULTS

Lab ID: L0812109-02  
 Client ID: IW-4-B-20080814-01  
 Sample Location: WAYLAND, MA  
 Matrix: Soil

Date Collected: 08/14/08 09:20  
 Date Received: 08/15/08  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	72		%	0.10	1	-	08/18/08 17:10	30,2540G	SD



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### SAMPLE RESULTS

**Lab ID:** L0812109-03  
**Client ID:** IW-5-A-20080814-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/14/08 14:00  
**Date Received:** 08/15/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	84		%	0.10	1	-	08/18/08 17:10	30,2540G	SD



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### SAMPLE RESULTS

**Lab ID:** L0812109-04  
**Client ID:** IW-5-B-20080814-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/14/08 14:30  
**Date Received:** 08/15/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	73		%	0.10	1	-	08/18/08 17:10	30,2540G	SD



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### SAMPLE RESULTS

**Lab ID:** L0812109-05  
**Client ID:** MW-560-A20080815-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/15/08 10:00  
**Date Received:** 08/15/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	86		%	0.10	1	-	08/18/08 17:10	30,2540G	SD





**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

### SAMPLE RESULTS

**Lab ID:** L0812109-06  
**Client ID:** MW-560-B20080815-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Soil

**Date Collected:** 08/15/08 10:30  
**Date Received:** 08/15/08  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Solids, Total	71		%	0.10	1	-	08/18/08 17:10	30,2540G	SD



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387

Lab Number: L0812109

Report Date: 08/21/08

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01-06 QC Batch ID: WG333008-1 QC Sample: L0812103-01 Client ID: DUP Sample					
Solids, Total	74	75	%	1	20

Project Name: RAYTHEON-WAYLAND

Lab Number: L0812109

Project Number: 0079387

Report Date: 08/21/08

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information

Cooler	Custody Seal
A	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0812109-01A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-01B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-01C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-01D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-02A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-02B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-02C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-02D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-03A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-03B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-03C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-03D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-04A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-04B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-04C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-04D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-05A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-05B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-05C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-05D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-06A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-06B	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-06C	Vial water preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)
L0812109-06D	Plastic 2oz unpreserved for TS	A	N/A	3.5 c	Y	Absent	TS(7)
L0812109-07A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	HOLD(14)
L0812109-08A	Vial MeOH preserved	A	N/A	3.5 c	Y	Absent	MCP-8260HLW(14)

\*Hold days indicated by values in parentheses



**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

## 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.  
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.  
NI - Not Ignitable.  
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.  
ND - Not detected at the reported detection limit for the sample.  
RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL 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

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

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.

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

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

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

**Project Name:** RAYTHEON-WAYLAND  
**Project Number:** 0079387

**Lab Number:** L0812109  
**Report Date:** 08/21/08

## REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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.





# CHAIN OF CUSTODY

PAGE OF

## Project Information

Westborough, MA Mansfield, MA  
 TEL: 508-898-9220 TEL: 508-822-9300  
 FAX: 508-898-9193 FAX: 508-822-3298

Project Name: **FANTHEON - WAYLAND**  
 Project Location: **WAYLAND, MA**  
 Project #: **0079307**  
 Project Manager: **JASON FLATTERY**  
 ALPHA Quote #:

## Client Information

Client: **ERM-New England**  
 Address: **399 Boylston Street, 6th Floor**  
 Boston, MA 02116  
 Phone: **617-267-8377**  
 Fax: **617-267-6447**  
 Email: **Jason.Flattery@erm.com**

Project Location: **WAYLAND, MA**  
 Project #: **0079307**  
 Project Manager: **JASON FLATTERY**  
 ALPHA Quote #:  
**Turn-Around Time**  
 Standard  Rush (ONLY IF PRE-APPROVED)  
 Due Date: **8/22** Time:

Other Project Specific Requirements/Comments/Detection Limits:

Date Rec'd in Lab: **8/15**

ALPHA Job #: **40812109**

## Report Information

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client Info

PO #:

## Regulatory Requirements/Report Limits

State/Fed Program: **MSP/PLS-1**

Criteria

## MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOLS

Yes  No Air MCP Analytical Methods Required?  
 Yes  No Air CT RCP (Reasonable Confidence Protocols) Required?

## ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	VOC B260 LOW	VOC B260 HIGH	TOTAL SOLIDS
2109.1	IW-4-A-20080814-01	8/14/08	9:00	S	EW	2	1	1
2	IW-4-B-20080814-01	8/14/08	9:20	S	EW	2	1	1
3	IW-5-A-20080814-01	8/14/08	14:00	S	BM	2	1	1
4	IW-5-B-20080814-01	8/14/08	14:30	S	EW	2	1	1
5	MW-5A0-A-20080815-01	8/15/08	10:00	S	EW	2	1	1
6	MW-5A0-B-20080815-01	8/15/08	10:30	S	EW	2	1	1
7	TB-01-20080815-01	8/15/08	11:11					
8	TB-02-20080815-01	8/15/08	09:00					

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

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP OR CT RCP?

Relinquished By:

Container Type	Preservative
V	P

Received By:

Date/Time

Signature: *Samuel Henry* Date/Time: **8/15/08 11:50**  
 Signature: *John Board* Date/Time: **8/15 11:30**  
 Signature: *Samuel Henry* Date/Time: **8/15 13:45**

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 Payment Terms.



## ANALYTICAL REPORT

Lab Number:	L0812630
Client:	ERM-New England 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Project Name:	RAYTHEON WAYLAND
Project Number:	0079837
Report Date:	09/02/08

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.

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



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0812630-01	IW-5-20080825-01	WAYLAND, MA
L0812630-02	IW-8-20080825-01	WAYLAND, MA
L0812630-03	IW-2-20080825-01	WAYLAND, MA
L0812630-04	MW-560-20080825-01	WAYLAND, MA
L0812630-05	TB-001-20080825-01	WAYLAND, MA



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### 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.

<b>An affirmative response to questions A, B, C &amp; D is required for "Presumptive Certainty" status</b>		
A	Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	N/A
<b>A response to questions E and F is required for "Presumptive Certainty" status</b>		
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

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



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### 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.

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.

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.

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#### MCP Related Narratives

##### Sample Receipt

The samples were Field Filtered for Dissolved Metals only.

##### Volatile Organics

L0812630-01 and -03 have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

In reference to question F:

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

##### Metals

In reference to question F:

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### Case Narrative (continued)

#### Non-MCP Related Narratives

##### Nitrate

L0812630-01 the initial pH of the sample was greater than 12. The pH was adjusted prior to analysis.

##### Total Phosphorus

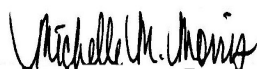
L0812630-04 has an elevated detection limit due to the dilution required to quantitate the result within the calibration range.

##### Sulfate

L0812630-02 through -04 have elevated detection limits due to the dilutions required to quantitate the results within the calibration range.

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:



Title: Technical Director/Representative

Date: 09/02/08

# ORGANICS

# VOLATILES

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-01  
 Client ID: IW-5-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 08/28/08 18:15  
 Analyst: GK

Date Collected: 08/25/08 09:35  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	100	20
1,1-Dichloroethane	ND		ug/l	15	20
Chloroform	ND		ug/l	15	20
Carbon tetrachloride	ND		ug/l	10	20
1,2-Dichloropropane	ND		ug/l	35	20
Dibromochloromethane	ND		ug/l	10	20
1,1,2-Trichloroethane	ND		ug/l	15	20
Tetrachloroethene	48		ug/l	10	20
Chlorobenzene	ND		ug/l	10	20
1,2-Dichloroethane	ND		ug/l	10	20
1,1,1-Trichloroethane	ND		ug/l	10	20
Bromodichloromethane	ND		ug/l	10	20
trans-1,3-Dichloropropene	ND		ug/l	10	20
cis-1,3-Dichloropropene	ND		ug/l	10	20
Bromoform	ND		ug/l	40	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	20
Chloromethane	ND		ug/l	50	20
Vinyl chloride	86		ug/l	20	20
Chloroethane	ND		ug/l	20	20
1,1-Dichloroethene	ND		ug/l	10	20
trans-1,2-Dichloroethene	ND		ug/l	15	20
Trichloroethene	1500		ug/l	10	20
1,2-Dichlorobenzene	ND		ug/l	50	20
1,3-Dichlorobenzene	ND		ug/l	50	20
1,4-Dichlorobenzene	ND		ug/l	50	20
cis-1,2-Dichloroethene	470		ug/l	10	20
Dichlorodifluoromethane	ND		ug/l	100	20
1,2-Dibromoethane	ND		ug/l	40	20
1,3-Dichloropropane	ND		ug/l	50	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	20

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-01  
 Client ID: IW-5-20080825-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/25/08 09:35  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	50	20
p-Chlorotoluene	ND		ug/l	50	20
Hexachlorobutadiene	ND		ug/l	12	20
1,2,4-Trichlorobenzene	ND		ug/l	50	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130

Project Name: RAYTHEON WAYLAND

Lab Number: L0812630

Project Number: 0079837

Report Date: 09/02/08

## SAMPLE RESULTS

Lab ID: L0812630-02  
 Client ID: IW-8-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 08/28/08 18:49  
 Analyst: GK

Date Collected: 08/25/08 11:40  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	0.89		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	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	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	1.7		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	2.8		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	4.8		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-02  
 Client ID: IW-8-20080825-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/25/08 11:40  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	84		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	94		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-03  
 Client ID: IW-2-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 08/28/08 19:22  
 Analyst: GK

Date Collected: 08/25/08 13:45  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	25	5
1,1-Dichloroethane	ND		ug/l	3.8	5
Chloroform	ND		ug/l	3.8	5
Carbon tetrachloride	ND		ug/l	2.5	5
1,2-Dichloropropane	ND		ug/l	8.8	5
Dibromochloromethane	ND		ug/l	2.5	5
1,1,2-Trichloroethane	ND		ug/l	3.8	5
Tetrachloroethene	6.6		ug/l	2.5	5
Chlorobenzene	ND		ug/l	2.5	5
1,2-Dichloroethane	ND		ug/l	2.5	5
1,1,1-Trichloroethane	ND		ug/l	2.5	5
Bromodichloromethane	ND		ug/l	2.5	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	5
Bromoform	ND		ug/l	10	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	5
Chloromethane	ND		ug/l	12	5
Vinyl chloride	94		ug/l	5.0	5
Chloroethane	ND		ug/l	5.0	5
1,1-Dichloroethene	ND		ug/l	2.5	5
trans-1,2-Dichloroethene	ND		ug/l	3.8	5
Trichloroethene	34		ug/l	2.5	5
1,2-Dichlorobenzene	ND		ug/l	12	5
1,3-Dichlorobenzene	ND		ug/l	12	5
1,4-Dichlorobenzene	ND		ug/l	12	5
cis-1,2-Dichloroethene	360		ug/l	2.5	5
Dichlorodifluoromethane	ND		ug/l	25	5
1,2-Dibromoethane	ND		ug/l	10	5
1,3-Dichloropropane	ND		ug/l	12	5
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	5

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-03  
 Client ID: IW-2-20080825-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/25/08 13:45  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	12	5
p-Chlorotoluene	ND		ug/l	12	5
Hexachlorobutadiene	ND		ug/l	3.0	5
1,2,4-Trichlorobenzene	ND		ug/l	12	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	94		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-04  
 Client ID: MW-560-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 08/28/08 19:56  
 Analyst: GK

Date Collected: 08/25/08 15:20  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	0.96		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	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	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	5.4		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	13		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	5.8		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-04  
 Client ID: MW-560-20080825-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/25/08 15:20  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	84		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	92		70-130

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-05  
 Client ID: TB-001-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water  
 Analytical Method: 60,8260B  
 Analytical Date: 08/28/08 20:26  
 Analyst: GK

Date Collected: 08/20/08 09:40  
 Date Received: 08/26/08  
 Field Prep: None

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	ND		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	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	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	ND		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-05  
 Client ID: TB-001-20080825-01  
 Sample Location: WAYLAND, MA

Date Collected: 08/20/08 09:40  
 Date Received: 08/26/08  
 Field Prep: None

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
<b>Volatile Organics by MCP 8260B</b>					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	92		70-130

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/28/08 16:01  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-05 Batch: WG334519-3				

Parameter	Result	Qualifier	Units	RDL
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/28/08 16:01  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-05 Batch: WG334519-3				

Parameter	Result	Qualifier	Units	RDL
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
cis-1,2-Dichloroethene	ND		ug/l	0.50
Dibromomethane	ND		ug/l	5.0
1,2,3-Trichloropropane	ND		ug/l	5.0
Styrene	ND		ug/l	1.0
Dichlorodifluoromethane	ND		ug/l	5.0
Acetone	ND		ug/l	5.0
Carbon disulfide	ND		ug/l	5.0
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	2.5
Tetrahydrofuran	ND		ug/l	10
2,2-Dichloropropane	ND		ug/l	2.5
1,2-Dibromoethane	ND		ug/l	2.0
1,3-Dichloropropane	ND		ug/l	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50
Bromobenzene	ND		ug/l	2.5
n-Butylbenzene	ND		ug/l	0.50
sec-Butylbenzene	ND		ug/l	0.50
tert-Butylbenzene	ND		ug/l	2.5
o-Chlorotoluene	ND		ug/l	2.5
p-Chlorotoluene	ND		ug/l	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5
Hexachlorobutadiene	ND		ug/l	0.60
Isopropylbenzene	ND		ug/l	0.50
p-Isopropyltoluene	ND		ug/l	0.50
Naphthalene	ND		ug/l	2.5
n-Propylbenzene	ND		ug/l	0.50

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 60,8260B  
Analytical Date: 08/28/08 16:01  
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
Volatile Organics by MCP 8260B for sample(s): 01-05 Batch: WG334519-3				

Parameter	Result	Qualifier	Units	RDL
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
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	83		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	91		70-130

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-05 Batch: WG334519-1 WG334519-2					
Methylene chloride	106	108	70-130	2	25
1,1-Dichloroethane	109	112	70-130	3	25
Chloroform	105	108	70-130	3	25
Carbon tetrachloride	97	100	70-130	3	25
1,2-Dichloropropane	106	109	70-130	3	25
Dibromochloromethane	99	101	70-130	2	25
1,1,2-Trichloroethane	105	107	70-130	2	25
Tetrachloroethene	102	106	70-130	4	25
Chlorobenzene	106	109	70-130	3	25
Trichlorofluoromethane	89	92	70-130	3	25
1,2-Dichloroethane	100	100	70-130	0	25
1,1,1-Trichloroethane	99	103	70-130	4	25
Bromodichloromethane	107	108	70-130	1	25
trans-1,3-Dichloropropene	98	99	70-130	1	25
cis-1,3-Dichloropropene	93	93	70-130	0	25
1,1-Dichloropropene	100	105	70-130	5	25
Bromoform	98	102	70-130	4	50
1,1,2,2-Tetrachloroethane	112	115	70-130	3	25
Benzene	108	113	70-130	5	25
Toluene	108	111	70-130	3	25
Ethylbenzene	106	111	70-130	5	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-05 Batch: WG334519-1 WG334519-2					
Chloromethane	113	117	70-130	3	50
Bromomethane	77	81	70-130	5	50
Vinyl chloride	92	96	70-130	4	25
Chloroethane	73	75	70-130	3	25
1,1-Dichloroethene	84	89	70-130	6	25
trans-1,2-Dichloroethene	107	113	70-130	5	25
Trichloroethene	99	103	70-130	4	25
1,2-Dichlorobenzene	106	110	70-130	4	25
1,3-Dichlorobenzene	104	109	70-130	5	25
1,4-Dichlorobenzene	106	111	70-130	5	25
Methyl tert butyl ether	99	92	70-130	7	25
p/m-Xylene	103	106	70-130	3	25
o-Xylene	103	105	70-130	2	25
cis-1,2-Dichloroethene	104	111	70-130	7	25
Dibromomethane	100	102	70-130	2	25
1,2,3-Trichloropropane	116	118	70-130	2	25
Styrene	100	102	70-130	2	25
Dichlorodifluoromethane	98	99	70-130	1	50
Acetone	111	94	70-130	17	50
Carbon disulfide	<b>66</b>	<b>62</b>	70-130	6	25
2-Butanone	112	99	70-130	12	50

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-05 Batch: WG334519-1 WG334519-2					
4-Methyl-2-pentanone	108	93	70-130	15	50
2-Hexanone	114	95	70-130	18	50
Bromochloromethane	102	104	70-130	2	25
Tetrahydrofuran	112	111	70-130	1	25
2,2-Dichloropropane	99	101	70-130	2	50
1,2-Dibromoethane	107	104	70-130	3	25
1,3-Dichloropropane	110	112	70-130	2	25
1,1,1,2-Tetrachloroethane	99	102	70-130	3	25
Bromobenzene	107	111	70-130	4	25
n-Butylbenzene	105	107	70-130	2	25
sec-Butylbenzene	106	111	70-130	5	25
tert-Butylbenzene	105	111	70-130	6	25
o-Chlorotoluene	89	94	70-130	5	25
p-Chlorotoluene	107	111	70-130	4	25
1,2-Dibromo-3-chloropropane	103	103	70-130	0	50
Hexachlorobutadiene	108	111	70-130	3	25
Isopropylbenzene	124	129	70-130	4	25
p-Isopropyltoluene	108	111	70-130	3	25
Naphthalene	101	106	70-130	5	25
n-Propylbenzene	108	113	70-130	5	25
1,2,3-Trichlorobenzene	110	113	70-130	3	25

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics by MCP 8260B Associated sample(s): 01-05 Batch: WG334519-1 WG334519-2					
1,2,4-Trichlorobenzene	101	108	70-130	7	25
1,3,5-Trimethylbenzene	104	109	70-130	5	25
1,2,4-Trimethylbenzene	104	108	70-130	4	25
Ethyl ether	79	71	70-130	11	25
Isopropyl Ether	103	100	70-130	3	25
Ethyl-Tert-Butyl-Ether	101	96	70-130	5	25
Tertiary-Amyl Methyl Ether	97	94	70-130	3	25
1,4-Dioxane	93	84	70-130	10	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		84		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	102		103		70-130
Dibromofluoromethane	95		96		70-130

# METALS

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-01

Date Collected: 08/25/08 09:35

Client ID: IW-5-20080825-01

Date Received: 08/26/08

Sample Location: WAYLAND, MA

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals by MCP 6000/7000 series										
Iron, Dissolved	ND		mg/l	0.05	1	08/27/08 15:30	08/29/08 20:25	EPA 3005A	60,6010B	MG



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-02  
 Client ID: IW-8-20080825-01  
 Sample Location: WAYLAND, MA  
 Matrix: Water

Date Collected: 08/25/08 11:40  
 Date Received: 08/26/08  
 Field Prep: Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals by MCP 6000/7000 series										
Iron, Dissolved	12		mg/l	0.05	1	08/27/08 15:30	08/29/08 20:32	EPA 3005A	60,6010B	MG



**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-03

Date Collected: 08/25/08 13:45

Client ID: IW-2-20080825-01

Date Received: 08/26/08

Sample Location: WAYLAND, MA

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals by MCP 6000/7000 series										
Iron, Dissolved	5.8		mg/l	0.05	1	08/27/08 15:30	08/29/08 20:35	EPA 3005A	60,6010B	MG

**Project Name:** RAYTHEON WAYLAND**Lab Number:** L0812630**Project Number:** 0079837**Report Date:** 09/02/08**SAMPLE RESULTS**

Lab ID: L0812630-04

Date Collected: 08/25/08 15:20

Client ID: MW-560-20080825-01

Date Received: 08/26/08

Sample Location: WAYLAND, MA

Field Prep: Field Filtered

Matrix: Water

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals by MCP 6000/7000 series										
Iron, Dissolved	7.5		mg/l	0.05	1	08/27/08 15:30	08/29/08 20:38	EPA 3005A	60,6010B	MG

Project Name: RAYTHEON WAYLAND

Lab Number: L0812630

Project Number: 0079837

Report Date: 09/02/08

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals by MCP 6000/7000 series for sample(s): 01-04 Batch: WG334227-1								
Iron, Dissolved	ND	mg/l	0.05	1	08/27/08 15:30	08/29/08 19:55	60,6010B	MG

### Prep Information

Digestion Method: EPA 3005A

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals by MCP 6000/7000 series Associated sample(s): 01-04 Batch: WG334227-2 WG334227-3					
Iron, Dissolved	92	90	80-120	2	20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### SAMPLE RESULTS

**Lab ID:** L0812630-01  
**Client ID:** IW-5-20080825-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Water

**Date Collected:** 08/25/08 09:35  
**Date Received:** 08/26/08  
**Field Prep:** Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Nitrogen, Nitrate	ND		mg/l	0.10	1	-	08/26/08 23:10	30,4500NO3-F	DD
Phosphorus, Total	ND		mg/l	0.010	1	-	08/27/08 20:40	30,4500P-E	HS
Sulfate	17		mg/l	10	1	08/29/08 09:45	08/29/08 09:45	1,9038	SD
Total Organic Carbon	4.0		mg/l	0.50	1	-	08/28/08 05:46	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### SAMPLE RESULTS

**Lab ID:** L0812630-02  
**Client ID:** IW-8-20080825-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Water

**Date Collected:** 08/25/08 11:40  
**Date Received:** 08/26/08  
**Field Prep:** Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Nitrogen, Nitrate	ND		mg/l	0.10	1	-	08/26/08 23:13	30,4500NO3-F	DD
Phosphorus, Total	0.134		mg/l	0.010	1	-	08/27/08 20:41	30,4500P-E	HS
Sulfate	54		mg/l	50	5	08/29/08 09:45	08/29/08 09:45	1,9038	SD
Total Organic Carbon	1.4		mg/l	0.50	1	-	08/28/08 05:46	1,9060	DW





**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### SAMPLE RESULTS

**Lab ID:** L0812630-03  
**Client ID:** IW-2-20080825-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Water

**Date Collected:** 08/25/08 13:45  
**Date Received:** 08/26/08  
**Field Prep:** Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Nitrogen, Nitrate	ND		mg/l	0.10	1	-	08/26/08 23:14	30,4500NO3-F	DD
Phosphorus, Total	0.019		mg/l	0.010	1	-	08/27/08 20:42	30,4500P-E	HS
Sulfate	49		mg/l	20	2	08/29/08 09:45	08/29/08 09:45	1,9038	SD
Total Organic Carbon	2.2		mg/l	0.50	1	-	08/28/08 05:46	1,9060	DW



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

### SAMPLE RESULTS

**Lab ID:** L0812630-04  
**Client ID:** MW-560-20080825-01  
**Sample Location:** WAYLAND, MA  
**Matrix:** Water

**Date Collected:** 08/25/08 15:20  
**Date Received:** 08/26/08  
**Field Prep:** Field Filtered

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry</b>									
Nitrogen, Nitrate	ND		mg/l	0.10	1	-	08/26/08 23:15	30,4500NO3-F	DD
Phosphorus, Total	1.78		mg/l	0.050	5	-	08/27/08 20:42	30,4500P-E	HS
Sulfate	62		mg/l	20	2	08/29/08 09:45	08/29/08 09:45	1,9038	SD
Total Organic Carbon	1.3		mg/l	0.50	1	-	08/28/08 05:46	1,9060	DW



Project Name: RAYTHEON WAYLAND

Lab Number: L0812630

Project Number: 0079837

Report Date: 09/02/08

**Method Blank Analysis**  
**Batch Quality Control**

Parameter	Result Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry for sample(s): 01-04 Batch: WG334065-2								
Nitrogen, Nitrate	ND	mg/l	0.10	1	-	08/26/08 21:05	30,4500NO3-F	DD
General Chemistry for sample(s): 01-04 Batch: WG334248-1								
Phosphorus, Total	ND	mg/l	0.010	1	-	08/27/08 20:16	30,4500P-E	HS
General Chemistry for sample(s): 01-04 Batch: WG334368-1								
Total Organic Carbon	ND	mg/l	0.50	1	-	08/28/08 05:46	1,9060	DW
General Chemistry for sample(s): 01-04 Batch: WG334577-1								
Sulfate	ND	mg/l	10	1	08/29/08 09:45	08/29/08 09:45	1,9038	SD

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Project Number:** 0079837

**Lab Number:** L0812630

**Report Date:** 09/02/08

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Associated sample(s): 01-04 Batch: WG334065-1					
Nitrogen, Nitrate	100	-	90-110	-	
Associated sample(s): 01-04 Batch: WG334248-2					
Phosphorus, Total	97	-	85-115	-	
Associated sample(s): 01-04 Batch: WG334368-2					
Total Organic Carbon	94	-	90-110	-	
Associated sample(s): 01-04 Batch: WG334577-2					
Sulfate	95	-	90-115	-	

**Matrix Spike Analysis**  
Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

Parameter	Native Sample	MS Added	MS Found	MS		MSD		Recovery	
				%Recovery	MSD Found	%Recovery	Limits	RPD	RPD Limits
Associated sample(s): 01-04 QC Batch ID: WG334065-3 QC Sample: L0812614-01 Client ID: MS Sample									
Nitrogen, Nitrate	ND	4	4.0	100	-	-	83-120	-	6
Associated sample(s): 01-04 QC Batch ID: WG334248-4 QC Sample: L0812630-02 Client ID: IW-8-20080825-01									
Phosphorus, Total	0.134	0.5	0.637	101	-	-	80-120	-	20
Associated sample(s): 01-04 QC Batch ID: WG334368-3 QC Sample: L0812468-01 Client ID: MS Sample									
Total Organic Carbon	9.6	20	33	119	-	-	80-120	-	20
Associated sample(s): 01-04 QC Batch ID: WG334577-3 QC Sample: L0812713-01 Client ID: MS Sample									
Sulfate	30	40	ND	100	-	-	55-147	-	14

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** RAYTHEON WAYLAND

**Project Number:** 0079837

**Lab Number:** L0812630

**Report Date:** 09/02/08

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Associated sample(s): 01-04 QC Batch ID: WG334065-4 QC Sample: L0812614-02 Client ID: DUP Sample					
Nitrogen, Nitrate	ND	ND	mg/l	NC	6
Associated sample(s): 01-04 QC Batch ID: WG334248-3 QC Sample: L0812630-01 Client ID: IW-5-20080825-01					
Phosphorus, Total	ND	ND	mg/l	NC	20
Associated sample(s): 01-04 QC Batch ID: WG334368-4 QC Sample: L0812468-01 Client ID: DUP Sample					
Total Organic Carbon	9.6	8.3	mg/l	15	20
Associated sample(s): 01-04 QC Batch ID: WG334577-4 QC Sample: L0812713-01 Client ID: DUP Sample					
Sulfate	30	30	mg/l	0	14

Project Name: RAYTHEON WAYLAND

Lab Number: L0812630

Project Number: 0079837

Report Date: 09/02/08

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information

Cooler	Custody Seal
A	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0812630-01A	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-01B	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-01C	Plastic 250ml H2SO4 preserved	A	<2	2C	Y	Absent	TPHOS-4500(28)
L0812630-01D	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-01E	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-01F	Plastic 500ml unpreserved	A	>12	2C	Y	Absent	SO4-9038(28),NO3-4500(2)
L0812630-01G	Plastic 250ml HNO3 preserved	A	<2	2C	Y	Absent	MCP-FE-6010S(180)
L0812630-02A	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-02B	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-02C	Plastic 250ml H2SO4 preserved	A	<2	2C	Y	Absent	TPHOS-4500(28)
L0812630-02D	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-02E	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-02F	Plastic 500ml unpreserved	A	7	2C	Y	Absent	SO4-9038(28),NO3-4500(2)
L0812630-02G	Plastic 250ml HNO3 preserved	A	<2	2C	Y	Absent	MCP-FE-6010S(180)
L0812630-03A	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-03B	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-03C	Plastic 250ml H2SO4 preserved	A	<2	2C	Y	Absent	TPHOS-4500(28)
L0812630-03D	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-03E	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-03F	Plastic 500ml unpreserved	A	7	2C	Y	Absent	SO4-9038(28),NO3-4500(2)
L0812630-03G	Plastic 250ml HNO3 preserved	A	<2	2C	Y	Absent	MCP-FE-6010S(180)
L0812630-04A	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-04B	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)
L0812630-04C	Plastic 250ml H2SO4 preserved	A	<2	2C	Y	Absent	TPHOS-4500(28)
L0812630-04D	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-04E	Vial H2SO4 preserved	A	N/A	2C	Y	Absent	TOC-9060(28)
L0812630-04F	Plastic 500ml unpreserved	A	7	2C	Y	Absent	SO4-9038(28),NO3-4500(2)
L0812630-04G	Plastic 250ml HNO3 preserved	A	<2	2C	Y	Absent	MCP-FE-6010S(180)
L0812630-05A	Vial HCl preserved	A	N/A	2C	Y	Absent	MCP-8260-04(14)

\*Hold days indicated by values in parentheses

Project Name: RAYTHEON WAYLAND

Lab Number: L0812630

Project Number: 0079837

Report Date: 09/02/08

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
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**Container Comments**

L0812630-01A	IR Gun
L0812630-01B	IR Gun
L0812630-01C	IR Gun
L0812630-01D	IR Gun
L0812630-01E	IR Gun
L0812630-01F	IR Gun
L0812630-01G	IR Gun
L0812630-02A	IR Gun
L0812630-02B	IR Gun
L0812630-02C	IR Gun
L0812630-02D	IR Gun
L0812630-02E	IR Gun
L0812630-02F	IR Gun
L0812630-02G	IR Gun
L0812630-03A	IR Gun
L0812630-03B	IR Gun
L0812630-03C	IR Gun
L0812630-03D	IR Gun
L0812630-03E	IR Gun
L0812630-03F	IR Gun
L0812630-03G	IR Gun
L0812630-04A	IR Gun
L0812630-04B	IR Gun
L0812630-04C	IR Gun
L0812630-04D	IR Gun
L0812630-04E	IR Gun
L0812630-04F	IR Gun
L0812630-04G	IR Gun

\*Hold days indicated by values in parentheses



**Project Name:** RAYTHEON WAYLAND

**Lab Number:** L0812630

**Project Number:** 0079837

**Report Date:** 09/02/08

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis</b>
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**Container Comments**

L0812630-05A	IR Gun
--------------	--------

\*Hold days indicated by values in parentheses



**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

## 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.
- 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.
- NI - Not Ignitable.
- 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.
- ND - Not detected at the reported detection limit for the sample.
- RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL 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

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

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.

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

J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

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

**Project Name:** RAYTHEON WAYLAND  
**Project Number:** 0079837

**Lab Number:** L0812630  
**Report Date:** 09/02/08

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

## LIMITATION OF LIABILITIES

Alpha Woods Hole Labs 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 Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Woods Hole Labs 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 Woods Hole Labs.

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.





# CHAIN OF CUSTODY

PAGE 1 OF

### Project Information

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

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

Project Name: **Raytheon Wayland**

Project Location: **Wayland, MA**

Project #: **0019837**

Project Manager: **Jason Flattery**

Address: **399 Boylston Street, 6th Floor**

Boston, MA 02116

Phone: **617-267-8377**

Fax: **617-267-6447**

Email: **Jason.Flattery@erm.com**

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)

Sample ID

Collection Date Time

Sample Matrix

Sampler's Initials

Container Type

Preservative

Relinquished By: **Paul D. Sisk**

Received By: **Paul D. Sisk**

Date/Time

Date/Time

Date/Time

Date/Time

Date/Time

Date/Time

Date Rec'd in Lab: **8/26/08**

ALPHA Job #: **10812631**

Report Information Data Deliverables

FAX  EMAIL

ADEX  Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program: **MA MCP**

MCP PRESUMPTIVE CERTAINTY-CT REASONABLE CONFIDENCE PROTOCOL

Yes  No

Yes  No

Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS

**SO<sub>4</sub>, NO<sub>3</sub>**

**Diss Fe**

**TPhos**

**TOC**

**8021C by 8260**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

**1 1 1 2 2**

SAMPLE HANDLING  
 Filtration  Done  
 Not Needed  
 Lab todo  
 Preservation  Lab todo  
 (Please specify below)

Sample Specific Comments

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

IS YOUR PROJECT  
 MA MCP or CT RCP?

PLEASE ANSWER QUESTIONS ABOVE!

FORM NO 31-010  
 (rev. 30-JUL-07)



Client Name: ERM  
Contact: Jason Flattery  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116

Page: Page 1 of 5  
Lab Proj #: P0808310  
Report Date: 09/03/08  
Client Proj Name: Wayland  
Client Proj #: Wayland

### Laboratory Results

Total pages in data package: 6

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P0808310-01	IW-5-20080825-04
P0808310-02	MW 560-20080825-04
P0808310-03	IW-2-20080825-04
P0808310-04	IW-8-20080825-04

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

**Approved By:** Rachel Whitby **Date:** 9/3/08

**Project Manager:** Rachel Whitby

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.  
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

**Case Narrative:**

Client Name: ERM  
Contact: Jason Flattery  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116

Page: Page 2 of 5  
Lab Proj #: P0808310  
Report Date: 09/03/08  
Client Proj Name: Wayland  
Client Proj #: Wayland

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
IW-5-20080825-04	Water	P0808310-01	25 Aug. 08 9:35	27 Aug. 08 10:55		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.560	0.025	ug/L	AM20GAX	9/2/08	rw
N Ethene	26.000	0.025	ug/L	AM20GAX	9/2/08	rw
N Methane	120.000	0.100	ug/L	AM20GAX	9/2/08	rw



Client Name: ERM  
 Contact: Jason Flattery  
 Address: 399 Boylston Street  
 6th Floor  
 Boston, MA 02116

Page: Page 3 of 5  
 Lab Proj #: P0808310  
 Report Date: 09/03/08  
 Client Proj Name: Wayland  
 Client Proj #: Wayland

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
MW 560-20080825-04	Water	P0808310-02	25 Aug. 08 11:40	27 Aug. 08 10:55		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.053	0.025	ug/L	AM20GAX	9/2/08	rw
N Ethene	0.630	0.025	ug/L	AM20GAX	9/2/08	rw
N Methane	34.000	0.100	ug/L	AM20GAX	9/2/08	rw



Client Name: ERM  
Contact: Jason Flattery  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116

Page: Page 4 of 5  
Lab Proj #: P0808310  
Report Date: 09/03/08  
Client Proj Name: Wayland  
Client Proj #: Wayland

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
IW-2-20080825-04	Water	P0808310-03	25 Aug. 08 13:45	27 Aug. 08 10:55		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.270	0.025	ug/L	AM20GAX	9/2/08	rw
N Ethene	17.000	0.025	ug/L	AM20GAX	9/2/08	rw
N Methane	49.000	0.100	ug/L	AM20GAX	9/2/08	rw





Client Name: ERM  
Contact: Jason Flattery  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116

Page: Page 5 of 5  
Lab Proj #: P0808310  
Report Date: 09/03/08  
Client Proj Name: Wayland  
Client Proj #: Wayland

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>	<u>Sampled Date/Time</u>	<u>Received</u>		
IW-8-20080825-04	Water	P0808310-04	25 Aug. 08 15:20	27 Aug. 08 10:55		
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>RiskAnalysis</u>						
N Ethane	0.055	0.025	ug/L	AM20GAX	9/2/08	rw
N Ethene	1.000	0.025	ug/L	AM20GAX	9/2/08	rw
N Methane	41.000	0.100	ug/L	AM20GAX	9/2/08	rw



