Environmental
Resources
Management

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

FILE COPY

1 April 2008
Reference: 0079387

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

RE: Transmittal of Groundwater 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 groundwater sample analyses from the Former Raytheon Facility located at 430 Boston Post Road in Wayland, Massachusetts (Site). The results are submitted pursuant to 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP).

ERM collected groundwater samples from 53 wells on portions of the Site within the boundaries of your property between 25 February and 6 March 2008. One group of samples (42 in total), was submitted for field analysis of permanganate concentration by colorimetry. A second group of samples (11 in total) was submitted for laboratory analysis of volatile organic compounds, total organic carbon, and dissolved methane, ethane, and ethene gases. Of this second group of samples, 10 were also submitted for laboratory analysis for total phosphorus, sulfate, nitrate, dissolved iron, and Q-gene-Trac DHE and VC. Sample analysis was conducted by three laboratories, Alpha Woods Hole Laboratories of Westborough, Massachusetts, Microseeps Inc. of Pittsburgh Pennsylvania, and SiREM Laboratory of Guelph, Ontario. Analytical laboratory reports are attached to this letter. 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 (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,

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

FOR Jeremy J. Picard, P.G.
Project Manager

Enclosures: BWSC-123 – Notice of Environmental Sampling
ERM Colorimetry Results
Alpha Woods Hole Laboratories Reports
Microseeps Inc. Laboratory Reports
SiREM 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:

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

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

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

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

Collection of groundwater samples from existing monitoring wells.

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

Contact Name: Louis J. Burkhardt

Street Address: 880 Technology Park Drive, 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.

Field Colorimetry
Data Form
WATER SAMPLES

Analyst:	T, Pac
Date:	2/25 - 26/08
Checked by:	T. Pac
Site Name:	Raytheon Wayland
Project Number:	79387.07
Project Manager:	J. Picard

Sample Name	Well ID	Collection Date / Time	Preservative (Note)	Color	Measured (ppm)	Dilution (X factor)	Concentration as $KMnO_4$ (ppm)	Concentration as $NaMnO_4$ (ppm)	Concentration as $NaMnO_4$ (%)	Notes
MW-33S	MW-33S-20080226-03	02/26/08 0820	Ice	clear	0.0	1	< 1	< 1	-	
MW-33M	MW-33M-20080226-03	02/26/08 0820	Ice	clear	0.0	1	< 1	< 1	-	
MW-40	MW-40-20080225-03	02/25/08 1412	Ice	clear	0.0	1	< 1	< 1	-	
MW-40S	MW-40S-20080225-03	02/25/08 1410	Ice	clear	0.0	1	< 1	< 1	-	
MW-43S	MW-43S-20080225-03	02/25/08 1030	Ice	clear	0.0	1	< 1	< 1	-	
MW-47S	MW-47S-20080225-03	02/25/08 1250	Ice	clear	0.0	1	< 1	< 1	-	
MW-47M	MW-47M-20080225-03	02/25/08 1255	Ice	clear	0.0	1	< 1	< 1	-	
MW-47D	MW-47D-20080225-03	02/25/08 1310	Ice	clear	0.0	1	< 1	< 1	-	
MW-101	MW-101-20080225-03	02/25/08 1450	Ice	pink	13.2	1	13.2	**11.9**	0.00	
MW-102	MW-102-20080225-03	02/25/08 1500	Ice	light purple	13.2	20	264	**237**	0.02	
MW-103	MW-103-20080226-03	02/26/08 0940	Ice	clear	0.0	1	< 1	< 1	-	
MW-104	No sample - well frozen under ice									
MW-105	MW-105-20080225-03	02/25/08 1115	Ice	clear	0.1	1	< 1	< 1	-	
MW-105M	MW-105M-20080225-03	02/25/08 1110	Ice	clear	0.0	1	< 1	< 1	-	
MW-106	Unable to access - frozen cap									
MW-106M	MW-106M-20080225-03	02/25/08 0925	Ice	clear	0.0	1	< 1	< 1	-	
MW-107	MW-107-20080225-03	02/25/08 1440	Ice	clear	0.0	1	< 1	< 1	-	
MW-109	MW-109-20080225-03	02/25/08 1605	Ice	clear	0.0	1	< 1	< 1	-	
MW-111	MW-111-20080225-03	02/25/08 1350	Ice	pink	32.9	1	32.9	**29.5**	0.00	
MW-113	MW-113-20080225-03	02/25/08 1340	Ice	clear	0.0	1	< 1	< 1	-	
MW-115	Unable to access									
MW-117	MW-117-20080226-03	02/26/08 0830	Ice	clear	0.0	1	< 1	**< 1**	-	
MW-118	MW-118-20080226-03	02/26/08 1015	Ice	purple	8.4	100	840	**754**	0.08	
MW-201S	MW-201S-20080225-03	02/25/08 0932	Ice	pink	3.8	1	3.8	**3.4**	0.00	
MW-201M	MW-201M-20080225-03	02/25/08 0930	Ice	clear	0.0	1	< 1	< 1	-	
MW-201D	MW-201D-20080225-03	02/25/08 0940	Ice	clear	0.0	1	< 1	< 1	-	

Field Colorimetry
Data Form
WATER SAMPLES

Analyst:	T, Pac
Date:	2/25 - 26/08
Checked by:	T. Pac
Site Name:	Raytheon Wayland
Project Number:	79387.07
Project Manager:	J. Picard

Sample Name	Well ID	Collection Date / Time	Preservative (Note)	Color	Measured (ppm)	Dilution (X factor)	Concentration as $KMnO_4$ (ppm)	Concentration as $NaMnO_4$ (ppm)	Concentration as $NaMnO_4$ (%)	Notes
MW-202S	MW-202S-20080225-03	02/25/08 1025	Ice	clear	0.0	1	< 1	< 1	-	
MW-202M	MW-202M-20080225-03	02/25/08 1027	Ice	clear	0.0	1	< 1	< 1	-	
MW-203S	MW-203S-20080225-03	02/25/08 1335	Ice	clear	0.0	1	< 1	< 1	-	
MW-203M	MW-203M-20080225-03	02/25/08 1322	Ice	clear	0.0	1	< 1	< 1	-	
MW-203D	MW-203D-20080225-03	02/25/08 1320	Ice	clear	0.0	1	< 1	< 1	-	
MW-204S	MW-204S-20080225-03	02/25/08 1330	Ice	clear	0.0	1	< 1	< 1	-	
MW-204M	MW-204M-20080225-03	02/25/08 1340	Ice	clear	0.0	1	< 1	< 1	-	
MW-204D	MW-204D-20080225-03	02/25/08 1325	Ice	clear	0.0	1	< 1	< 1	-	
MW-208S	MW-208S-20080226-03	02/26/08 1125	Ice	clear	0.1	1	< 1	< 1	-	
MW-208M	MW-208M-20080226-03	02/26/08 1140	Ice	clear	0.0	1	< 1	< 1	-	
MW-209	Unable to access - frozen under ice									
MW-210	Unable to access - frozen under ice									
MW-211	MW-211-20080225-03	02/25/08 0910	Ice	clear	0.0	1	< 1	< 1	-	
MW-212	MW-212-20080225-03	02/25/08 0940	Ice	clear	0.2	1	< 1	< 1	-	
MW-212M	MW-212M-20080225-03	02/25/08 1000	Ice	clear	0.0	1	< 1	< 1	-	
MW-403	MW-403-20080226-03	02/26/08 0920	Ice	clear	0.0	1	< 1	< 1	-	
MW-404	MW-404-20080226-03	02/26/08 1010	Ice	fuschia	59.3	1	59.3	**53.3**	0.01	
MW-405S	MW-405S-20080226-03	02/26/08 0850	Ice	purple	8.0	100	800	**718**	0.07	
IP-9S	Well noted as purple in color - unable to retrieve sufficient sample for analyses									
IP-16S	MW-16S-20080226-03	02/26/08 0945	Ice	magenta	16.1	10	161	**145**	0.01	
IP-16D	MW-17D-20080226-03	02/26/08 1005	Ice	light purple	3.3	100	330	**296**	0.03	
IP-17D	MW-17D-20080226-03	02/26/08 0935	Ice	clear	0.0	1	< 1	< 1	-	

Note:
< 1 less than detection limit of method (1 ppm)

ANALYTICAL REPORT

Prepared for:
Alpha Analytical - Westborough
8 Walkup Drive
Westborough, MA 01581

Project:	L0803236 - ERM BOSTON
ETR:	0803047
Report Date:	March 14, 2008

Certifications and Accreditations
Massachusetts M-MA030
Connecticut PH-0141
New Hampshire 2206
Rhode Island LAO00289
New Jersey MA015
Maine MA0030
New York 11627
Louisiana 03090
Florida E87814
Pennsylvania 68-02089
Army Corps of Engineers
Department of the Navy

Sample ID Cross Reference

Client: **Alpha Analytical - Westborough** Lab Code: **MA00030**
Project: **L0803236 - ERM BOSTON** ETR: **0803047**

Lab Sample ID	Client Sample ID
0803047-01	MW-261S-20080306-01
0803047-02	MW-265M-20080306-01
0803047-03	MW-266Ma-20080306-01
0803047-04	MW-266Mb-20080306-01
0803047-05	MW-267S-20080306-01
0803047-06	MW-267M-20080306-01
0803047-07	MW-268M-20080306-01
0803047-08	MW-268D-20080306-01
0803047-09	MW-551-20080306-01
0803047-10	MW-552-20080306-01
0803047-11	MW-553-20080306-01
0803047-12	DUP-001-20080306-01
0803047-13	DUP-002-20080306-01
0803047-14	TB-001-20080306-01

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Alpha Analytical

Project Number: 0803047

Project Location: **MCP RTN #[1]:**

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

0803047-01 through 0803047-14

Sample Matrices: [Groundwater] Soil/Sediment Drinking Water Other:

MCP SW-846 Methods used (as specified in MADEP Compendium of Analytical Methods)

Check all that apply:

8260B (X)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other:

[1] – List Release Tracking Number (RTN), if known.
[2]M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method.
[3]S – SW-846 Methods 7000 Series. List individual method and analyte.

	An affirmative response to question A, B, C and D is required for "Presumptive Certainty" status.		
A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	[Yes]	No[1]
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]	No[1]
C	Does the data included in this report meet all the analytical requirements for "Presumptive Certainty", as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for Acquisition and Reporting of Analytical Data"?	[Yes]	No[1]
D	***VPH and EPH methods only***: Was the VPH or EPH method conducted without significant modifications (see Section 11.3 of respective Methods)?	Yes	No[1]
	A response to questions E and F below is required for "Presumptive Certainty" status.		
E	Were all analytical QC performance standards and recommendations for the specified methods achieved?	Yes	[No[1]]
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes	[No[1]]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

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

Signature: Peter Henriksen **Position:** **Project Manager**

Printed Name: **Peter Henriksen** **Date:** **3-14-08**

CASE NARRATIVE
Alpha Analytical

ETR: 0803047
Project: L0803236-ERM BOSTON

All analyses were performed according to Alpha Analytical quality assurance program and documented Standard Operating Procedures (SOPs). The analytical results contained in this report were performed within holding time, and with appropriate quality control measures, except where noted. All soil/sediment results are reported on a dry weight basis unless otherwise noted. A summary of all state and federal accreditations is provided within this report. Blank correction of results is not performed in the laboratory for any parameter. Alpha Analytical certifies that the test results within meet all of the requirements of NELAC, for all NELAC accredited parameters.

Volatile Organics by 8260

1. The initial calibrations had values for compounds outside of the 15% RSD QC advisory limit. Refer to the Form VI Initial Calibration Summary reports for specific outliers. These initial calibrations meet the acceptability criteria.

2. Per client request, only a subset of the MCP analyte list for SW-846 Method 8260B Volatile Organic Compounds by GC/MS were reported.

3. Several samples were initially analyzed at dilution due to historical data. Refer to the individual report forms for specific dilution requirements.

4. Sample MW-267S-20080306-01 (0803047-05) had Trichloroethene detected above the calibration range of the instrument as denoted with an "E" qualifier. The sample was re-analyzed at a

The enclosed results of analyses are representative of the samples as received by the laboratory. Alpha Analytical makes no representations or certifications as to the method of sample collection, sample identification, or transporting/handling procedures used prior to the receipt of samples by Alpha Analytical. To the best of my knowledge, the information contained in this report is accurate and complete. For any questions regarding this report, please contact the signatory below at 508-822-9300.

Approved by Peter Henriksen Title: Project Manager Date: 3/14/08

Peter Henriksen

VOLATILE ORGANICS

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-261S-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-01**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	20	ALM

Parameter	Result	
Dichlorodifluoromethane	40.0	U
Chloromethane	40.0	U
Vinyl chloride	40.0	U
Chloroethane	40.0	U
1,1-Dichloroethene	40.0	U
Methylene chloride	100	U
trans-1,2-Dichloroethene	40.0	U
1,1-Dichloroethane	40.0	U
cis-1,2-Dichloroethene	**108**	
1,1,1-Trichloroethane	40.0	U
Carbon tetrachloride	40.0	U
1,2-Dichloroethane	40.0	U
Trichloroethene	**3080**	
1,2-Dichloropropane	40.0	U
Bromodichloromethane	40.0	U
cis-1,3-Dichloropropene	40.0	U
trans-1,3-Dichloropropene	40.0	U
1,1,2-Trichloroethane	40.0	U
Tetrachloroethene	**70.8**	
1,3-Dichloropropane	40.0	U
Dibromochloromethane	40.0	U
1,2-Dibromoethane	40.0	U
Chlorobenzene	40.0	U
1,1,1,2-Tetrachloroethane	40.0	U
Bromoform	40.0	U
1,1,2,2-Tetrachloroethane	40.0	U
2-Chlorotoluene	40.0	U
4-Chlorotoluene	40.0	U
1,3-Dichlorobenzene	40.0	U
1,4-Dichlorobenzene	40.0	U
1,2-Dichlorobenzene	40.0	U
1,2,4-Trichlorobenzene	40.0	U
Hexachlorobutadiene	40.0	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	99	70-130
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-265M-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-02**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/12/08	5	5	10	ALM

Parameter	Result	
Dichlorodifluoromethane	20.0	U
Chloromethane	20.0	U
Vinyl chloride	**36.8**	
Chloroethane	20.0	U
1,1-Dichloroethene	20.0	U
Methylene chloride	50.0	U
trans-1,2-Dichloroethene	20.0	U
1,1-Dichloroethane	20.0	U
cis-1,2-Dichloroethene	**454**	
1,1,1-Trichloroethane	20.0	U
Carbon tetrachloride	20.0	U
1,2-Dichloroethane	20.0	U
Trichloroethene	**622**	
1,2-Dichloropropane	20.0	U
Bromodichloromethane	20.0	U
cis-1,3-Dichloropropene	20.0	U
trans-1,3-Dichloropropene	20.0	U
1,1,2-Trichloroethane	20.0	U
Tetrachloroethene	**39.3**	
1,3-Dichloropropane	20.0	U
Dibromochloromethane	20.0	U
1,2-Dibromoethane	20.0	U
Chlorobenzene	20.0	U
1,1,1,2-Tetrachloroethane	20.0	U
Bromoform	20.0	U
1,1,2,2-Tetrachloroethane	20.0	U
2-Chlorotoluene	20.0	U
4-Chlorotoluene	20.0	U
1,3-Dichlorobenzene	20.0	U
1,4-Dichlorobenzene	20.0	U
1,2-Dichlorobenzene	20.0	U
1,2,4-Trichlorobenzene	20.0	U
Hexachlorobutadiene	20.0	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	106	70-130
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-266Ma-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-03**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/12/08	5	5	1	ALM

Parameter	Result	
Dichlorodifluoromethane	2.00	U
Chloromethane	2.00	U
Vinyl chloride	2.00	U
Chloroethane	2.00	U
1,1-Dichloroethene	2.00	U
Methylene chloride	5.00	U
trans-1,2-Dichloroethene	2.00	U
1,1-Dichloroethane	2.00	U
cis-1,2-Dichloroethene	**2.82**	
1,1,1-Trichloroethane	2.00	U
Carbon tetrachloride	2.00	U
1,2-Dichloroethane	2.00	U
Trichloroethene	**11.5**	
1,2-Dichloropropane	2.00	U
Bromodichloromethane	2.00	U
cis-1,3-Dichloropropene	2.00	U
trans-1,3-Dichloropropene	2.00	U
1,1,2-Trichloroethane	2.00	U
Tetrachloroethene	2.00	U
1,3-Dichloropropane	2.00	U
Dibromochloromethane	2.00	U
1,2-Dibromoethane	2.00	U
Chlorobenzene	2.00	U
1,1,1,2-Tetrachloroethane	2.00	U
Bromoform	2.00	U
1,1,2,2-Tetrachloroethane	2.00	U
2-Chlorotoluene	2.00	U
4-Chlorotoluene	2.00	U
1,3-Dichlorobenzene	2.00	U
1,4-Dichlorobenzene	2.00	U
1,2-Dichlorobenzene	2.00	U
1,2,4-Trichlorobenzene	2.00	U
Hexachlorobutadiene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	97	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-266Mb-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-04**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	2	ALM

Parameter	Result	
Dichlorodifluoromethane	4.00	U
Chloromethane	4.00	U
Vinyl chloride	**15.0**	
Chloroethane	4.00	U
1,1-Dichloroethene	4.00	U
Methylene chloride	10.0	U
trans-1,2-Dichloroethene	4.00	U
1,1-Dichloroethane	4.00	U
cis-1,2-Dichloroethene	**222**	
1,1,1-Trichloroethane	4.00	U
Carbon tetrachloride	4.00	U
1,2-Dichloroethane	4.00	U
Trichloroethene	**183**	
1,2-Dichloropropane	4.00	U
Bromodichloromethane	4.00	U
cis-1,3-Dichloropropene	4.00	U
trans-1,3-Dichloropropene	4.00	U
1,1,2-Trichloroethane	4.00	U
Tetrachloroethene	**32.7**	
1,3-Dichloropropane	4.00	U
Dibromochloromethane	4.00	U
1,2-Dibromoethane	4.00	U
Chlorobenzene	4.00	U
1,1,1,2-Tetrachloroethane	4.00	U
Bromoform	4.00	U
1,1,2,2-Tetrachloroethane	4.00	U
2-Chlorotoluene	4.00	U
4-Chlorotoluene	4.00	U
1,3-Dichlorobenzene	4.00	U
1,4-Dichlorobenzene	4.00	U
1,2-Dichlorobenzene	4.00	U
1,2,4-Trichlorobenzene	4.00	U
Hexachlorobutadiene	4.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	98	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-267S-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-05**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/12/08	5	5	1	ALM

Parameter	Result
Dichlorodifluoromethane	2.00 U
Chloromethane	2.00 U
Vinyl chloride	2.00 U
Chloroethane	2.00 U
1,1-Dichloroethene	2.00 U
Methylene chloride	5.00 U
trans-1,2-Dichloroethene	2.00 U
1,1-Dichloroethane	2.00 U
cis-1,2-Dichloroethene	**94.7**
1,1,1-Trichloroethane	2.00 U
Carbon tetrachloride	2.00 U
1,2-Dichloroethane	2.00 U
Trichloroethene	**532** E
1,2-Dichloropropane	2.00 U
Bromodichloromethane	2.00 U
cis-1,3-Dichloropropene	2.00 U
trans-1,3-Dichloropropene	2.00 U
1,1,2-Trichloroethane	2.00 U
Tetrachloroethene	**9.81**
1,3-Dichloropropane	2.00 U
Dibromochloromethane	2.00 U
1,2-Dibromoethane	2.00 U
Chlorobenzene	2.00 U
1,1,1,2-Tetrachloroethane	2.00 U
Bromoform	2.00 U
1,1,2,2-Tetrachloroethane	2.00 U
2-Chlorotoluene	2.00 U
4-Chlorotoluene	2.00 U
1,3-Dichlorobenzene	2.00 U
1,4-Dichlorobenzene	2.00 U
1,2-Dichlorobenzene	2.00 U
1,2,4-Trichlorobenzene	2.00 U
Hexachlorobutadiene	2.00 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	97	70-130

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-267S-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-05E**
Associated Blank: **VW031408B04**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/14/08	5	5	5	ALM

Parameter	Result	
Dichlorodifluoromethane	10.0	U
Chloromethane	10.0	U
Vinyl chloride	10.0	U
Chloroethane	10.0	U
1,1-Dichloroethene	10.0	U
Methylene chloride	25.0	U
trans-1,2-Dichloroethene	10.0	U
1,1-Dichloroethane	10.0	U
cis-1,2-Dichloroethene	**90.2**	
1,1,1-Trichloroethane	10.0	U
Carbon tetrachloride	10.0	U
1,2-Dichloroethane	10.0	U
Trichloroethene	**555**	
1,2-Dichloropropane	10.0	U
Bromodichloromethane	10.0	U
cis-1,3-Dichloropropene	10.0	U
trans-1,3-Dichloropropene	10.0	U
1,1,2-Trichloroethane	10.0	U
Tetrachloroethene	10.0	U
1,3-Dichloropropane	10.0	U
Dibromochloromethane	10.0	U
1,2-Dibromoethane	10.0	U
Chlorobenzene	10.0	U
1,1,1,2-Tetrachloroethane	10.0	U
Bromoform	10.0	U
1,1,2,2-Tetrachloroethane	10.0	U
2-Chlorotoluene	10.0	U
4-Chlorotoluene	10.0	U
1,3-Dichlorobenzene	10.0	U
1,4-Dichlorobenzene	10.0	U
1,2-Dichlorobenzene	10.0	U
1,2,4-Trichlorobenzene	10.0	U
Hexachlorobutadiene	10.0	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	91	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-267M-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-06**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	5	ALM

Parameter	Result	
Dichlorodifluoromethane	10.0	U
Chloromethane	10.0	U
Vinyl chloride	**23.8**	
Chloroethane	10.0	U
1,1-Dichloroethene	10.0	U
Methylene chloride	25.0	U
trans-1,2-Dichloroethene	10.0	U
1,1-Dichloroethane	10.0	U
cis-1,2-Dichloroethene	**661**	
1,1,1-Trichloroethane	10.0	U
Carbon tetrachloride	10.0	U
1,2-Dichloroethane	10.0	U
Trichloroethene	**768**	
1,2-Dichloropropane	10.0	U
Bromodichloromethane	10.0	U
cis-1,3-Dichloropropene	10.0	U
trans-1,3-Dichloropropene	10.0	U
1,1,2-Trichloroethane	10.0	U
Tetrachloroethene	**45.3**	
1,3-Dichloropropane	10.0	U
Dibromochloromethane	10.0	U
1,2-Dibromoethane	10.0	U
Chlorobenzene	10.0	U
1,1,1,2-Tetrachloroethane	10.0	U
Bromoform	10.0	U
1,1,2,2-Tetrachloroethane	10.0	U
2-Chlorotoluene	10.0	U
4-Chlorotoluene	10.0	U
1,3-Dichlorobenzene	10.0	U
1,4-Dichlorobenzene	10.0	U
1,2-Dichlorobenzene	10.0	U
1,2,4-Trichlorobenzene	10.0	U
Hexachlorobutadiene	10.0	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-268M-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-07**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	20	ALM

Parameter	Result
Dichlorodifluoromethane	40.0 U
Chloromethane	40.0 U
Vinyl chloride	**112**
Chloroethane	40.0 U
1,1-Dichloroethene	40.0 U
Methylene chloride	100 U
trans-1,2-Dichloroethene	40.0 U
1,1-Dichloroethane	40.0 U
cis-1,2-Dichloroethene	**3310**
1,1,1-Trichloroethane	40.0 U
Carbon tetrachloride	40.0 U
1,2-Dichloroethane	40.0 U
Trichloroethene	**1990**
1,2-Dichloropropane	40.0 U
Bromodichloromethane	40.0 U
cis-1,3-Dichloropropene	40.0 U
trans-1,3-Dichloropropene	40.0 U
1,1,2-Trichloroethane	40.0 U
Tetrachloroethene	**57.6**
1,3-Dichloropropane	40.0 U
Dibromochloromethane	40.0 U
1,2-Dibromoethane	40.0 U
Chlorobenzene	40.0 U
1,1,1,2-Tetrachloroethane	40.0 U
Bromoform	40.0 U
1,1,2,2-Tetrachloroethane	40.0 U
2-Chlorotoluene	40.0 U
4-Chlorotoluene	40.0 U
1,3-Dichlorobenzene	40.0 U
1,4-Dichlorobenzene	40.0 U
1,2-Dichlorobenzene	40.0 U
1,2,4-Trichlorobenzene	40.0 U
Hexachlorobutadiene	40.0 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	97	70-130
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-268D-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-08**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/12/08	5	5	1	ALM

Parameter	Result
Dichlorodifluoromethane	2.00 U
Chloromethane	2.00 U
Vinyl chloride	2.00 U
Chloroethane	2.00 U
1,1-Dichloroethene	2.00 U
Methylene chloride	5.00 U
trans-1,2-Dichloroethene	2.00 U
1,1-Dichloroethane	2.00 U
cis-1,2-Dichloroethene	**9.55**
1,1,1-Trichloroethane	2.00 U
Carbon tetrachloride	2.00 U
1,2-Dichloroethane	2.00 U
Trichloroethene	**9.41**
1,2-Dichloropropane	2.00 U
Bromodichloromethane	2.00 U
cis-1,3-Dichloropropene	2.00 U
trans-1,3-Dichloropropene	2.00 U
1,1,2-Trichloroethane	2.00 U
Tetrachloroethene	2.00 U
1,3-Dichloropropane	2.00 U
Dibromochloromethane	2.00 U
1,2-Dibromoethane	2.00 U
Chlorobenzene	2.00 U
1,1,1,2-Tetrachloroethane	2.00 U
Bromoform	2.00 U
1,1,2,2-Tetrachloroethane	2.00 U
2-Chlorotoluene	2.00 U
4-Chlorotoluene	2.00 U
1,3-Dichlorobenzene	2.00 U
1,4-Dichlorobenzene	2.00 U
1,2-Dichlorobenzene	2.00 U
1,2,4-Trichlorobenzene	2.00 U
Hexachlorobutadiene	2.00 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	107	70-130
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-551-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-09**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/12/08	5	5	1	ALM

Parameter	Result	
Dichlorodifluoromethane	2.00	U
Chloromethane	2.00	U
Vinyl chloride	2.00	U
Chloroethane	2.00	U
1,1-Dichloroethene	2.00	U
Methylene chloride	5.00	U
trans-1,2-Dichloroethene	2.00	U
1,1-Dichloroethane	2.00	U
cis-1,2-Dichloroethene	2.00	U
1,1,1-Trichloroethane	2.00	U
Carbon tetrachloride	2.00	U
1,2-Dichloroethane	2.00	U
Trichloroethene	**16.8**	
1,2-Dichloropropane	2.00	U
Bromodichloromethane	2.00	U
cis-1,3-Dichloropropene	2.00	U
trans-1,3-Dichloropropene	2.00	U
1,1,2-Trichloroethane	2.00	U
Tetrachloroethene	2.00	U
1,3-Dichloropropane	2.00	U
Dibromochloromethane	2.00	U
1,2-Dibromoethane	2.00	U
Chlorobenzene	2.00	U
1,1,1,2-Tetrachloroethane	2.00	U
Bromoform	2.00	U
1,1,2,2-Tetrachloroethane	2.00	U
2-Chlorotoluene	2.00	U
4-Chlorotoluene	2.00	U
1,3-Dichlorobenzene	2.00	U
1,4-Dichlorobenzene	2.00	U
1,2-Dichlorobenzene	2.00	U
1,2,4-Trichlorobenzene	2.00	U
Hexachlorobutadiene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	107	70-130
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	98	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-552-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-10**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	50	ALM

Parameter	Result
Dichlorodifluoromethane	100 U
Chloromethane	100 U
Vinyl chloride	100 U
Chloroethane	100 U
1,1-Dichloroethene	100 U
Methylene chloride	250 U
trans-1,2-Dichloroethene	100 U
1,1-Dichloroethane	100 U
cis-1,2-Dichloroethene	**325**
1,1,1-Trichloroethane	100 U
Carbon tetrachloride	100 U
1,2-Dichloroethane	100 U
Trichloroethene	**4020**
1,2-Dichloropropane	100 U
Bromodichloromethane	100 U
cis-1,3-Dichloropropene	100 U
trans-1,3-Dichloropropene	100 U
1,1,2-Trichloroethane	100 U
Tetrachloroethene	**170**
1,3-Dichloropropane	100 U
Dibromochloromethane	100 U
1,2-Dibromoethane	100 U
Chlorobenzene	100 U
1,1,1,2-Tetrachloroethane	100 U
Bromoform	100 U
1,1,2,2-Tetrachloroethane	100 U
2-Chlorotoluene	100 U
4-Chlorotoluene	100 U
1,3-Dichlorobenzene	100 U
1,4-Dichlorobenzene	100 U
1,2-Dichlorobenzene	100 U
1,2,4-Trichlorobenzene	100 U
Hexachlorobutadiene	100 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	105	70-130
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **MW-553-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-11**
Associated Blank: **VW031408B04**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/14/08	5	5	2	ALM

Parameter	Result	
Dichlorodifluoromethane	4.00	U
Chloromethane	4.00	U
Vinyl chloride	4.00	U
Chloroethane	4.00	U
1,1-Dichloroethene	4.00	U
Methylene chloride	10.0	U
trans-1,2-Dichloroethene	4.00	U
1,1-Dichloroethane	4.00	U
cis-1,2-Dichloroethene	**53.5**	
1,1,1-Trichloroethane	4.00	U
Carbon tetrachloride	4.00	U
1,2-Dichloroethane	4.00	U
Trichloroethene	**305**	
1,2-Dichloropropane	4.00	U
Bromodichloromethane	4.00	U
cis-1,3-Dichloropropene	4.00	U
trans-1,3-Dichloropropene	4.00	U
1,1,2-Trichloroethane	4.00	U
Tetrachloroethene	**29.5**	
1,3-Dichloropropane	4.00	U
Dibromochloromethane	4.00	U
1,2-Dibromoethane	4.00	U
Chlorobenzene	4.00	U
1,1,1,2-Tetrachloroethane	4.00	U
Bromoform	4.00	U
1,1,2,2-Tetrachloroethane	4.00	U
2-Chlorotoluene	4.00	U
4-Chlorotoluene	4.00	U
1,3-Dichlorobenzene	4.00	U
1,4-Dichlorobenzene	4.00	U
1,2-Dichlorobenzene	4.00	U
1,2,4-Trichlorobenzene	4.00	U
Hexachlorobutadiene	4.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	91	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **DUP-001-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-12**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	20	ALM

Parameter	Result
Dichlorodifluoromethane	40.0 U
Chloromethane	40.0 U
Vinyl chloride	**117**
Chloroethane	40.0 U
1,1-Dichloroethene	40.0 U
Methylene chloride	100 U
trans-1,2-Dichloroethene	40.0 U
1,1-Dichloroethane	40.0 U
cis-1,2-Dichloroethene	**3440**
1,1,1-Trichloroethane	40.0 U
Carbon tetrachloride	40.0 U
1,2-Dichloroethane	40.0 U
Trichloroethene	**1990**
1,2-Dichloropropane	40.0 U
Bromodichloromethane	40.0 U
cis-1,3-Dichloropropene	40.0 U
trans-1,3-Dichloropropene	40.0 U
1,1,2-Trichloroethane	40.0 U
Tetrachloroethene	**57.6**
1,3-Dichloropropane	40.0 U
Dibromochloromethane	40.0 U
1,2-Dibromoethane	40.0 U
Chlorobenzene	40.0 U
1,1,1,2-Tetrachloroethane	40.0 U
Bromoform	40.0 U
1,1,2,2-Tetrachloroethane	40.0 U
2-Chlorotoluene	40.0 U
4-Chlorotoluene	40.0 U
1,3-Dichlorobenzene	40.0 U
1,4-Dichlorobenzene	40.0 U
1,2-Dichlorobenzene	40.0 U
1,2,4-Trichlorobenzene	40.0 U
Hexachlorobutadiene	40.0 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **DUP-002-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-13**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
03/06/08	03/11/08	03/13/08	5	5	20	ALM

Parameter	Result
Dichlorodifluoromethane	40.0 U
Chloromethane	40.0 U
Vinyl chloride	40.0 U
Chloroethane	40.0 U
1,1-Dichloroethene	40.0 U
Methylene chloride	100 U
trans-1,2-Dichloroethene	40.0 U
1,1-Dichloroethane	40.0 U
cis-1,2-Dichloroethene	**117**
1,1,1-Trichloroethane	40.0 U
Carbon tetrachloride	40.0 U
1,2-Dichloroethane	40.0 U
Trichloroethene	**3310**
1,2-Dichloropropane	40.0 U
Bromodichloromethane	40.0 U
cis-1,3-Dichloropropene	40.0 U
trans-1,3-Dichloropropene	40.0 U
1,1,2-Trichloroethane	40.0 U
Tetrachloroethene	**71.6**
1,3-Dichloropropane	40.0 U
Dibromochloromethane	40.0 U
1,2-Dibromoethane	40.0 U
Chlorobenzene	40.0 U
1,1,1,2-Tetrachloroethane	40.0 U
Bromoform	40.0 U
1,1,2,2-Tetrachloroethane	40.0 U
2-Chlorotoluene	40.0 U
4-Chlorotoluene	40.0 U
1,3-Dichlorobenzene	40.0 U
1,4-Dichlorobenzene	40.0 U
1,2-Dichlorobenzene	40.0 U
1,2,4-Trichlorobenzene	40.0 U
Hexachlorobutadiene	40.0 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	99	70-130
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **TB-001-20080306-01**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **0803047-14**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
02/04/08	03/11/08	03/12/08	5	5	1	ALM

Parameter	Result
Dichlorodifluoromethane	2.00 U
Chloromethane	2.00 U
Vinyl chloride	2.00 U
Chloroethane	2.00 U
1,1-Dichloroethene	2.00 U
Methylene chloride	5.00 U
trans-1,2-Dichloroethene	2.00 U
1,1-Dichloroethane	2.00 U
cis-1,2-Dichloroethene	2.00 U
1,1,1-Trichloroethane	2.00 U
Carbon tetrachloride	2.00 U
1,2-Dichloroethane	2.00 U
Trichloroethene	2.00 U
1,2-Dichloropropane	2.00 U
Bromodichloromethane	2.00 U
cis-1,3-Dichloropropene	2.00 U
trans-1,3-Dichloropropene	2.00 U
1,1,2-Trichloroethane	2.00 U
Tetrachloroethene	2.00 U
1,3-Dichloropropane	2.00 U
Dibromochloromethane	2.00 U
1,2-Dibromoethane	2.00 U
Chlorobenzene	2.00 U
1,1,1,2-Tetrachloroethane	2.00 U
Bromoform	2.00 U
1,1,2,2-Tetrachloroethane	2.00 U
2-Chlorotoluene	2.00 U
4-Chlorotoluene	2.00 U
1,3-Dichlorobenzene	2.00 U
1,4-Dichlorobenzene	2.00 U
1,2-Dichlorobenzene	2.00 U
1,2,4-Trichlorobenzene	2.00 U
Hexachlorobutadiene	2.00 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031208B02**
Associated Blank: **N/A**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/12/08	5	5	1	ALM

Parameter	Result
Dichlorodifluoromethane	2.00 U
Chloromethane	2.00 U
Vinyl chloride	2.00 U
Chloroethane	2.00 U
1,1-Dichloroethene	2.00 U
Methylene chloride	5.00 U
trans-1,2-Dichloroethene	2.00 U
1,1-Dichloroethane	2.00 U
cis-1,2-Dichloroethene	2.00 U
1,1,1-Trichloroethane	2.00 U
Carbon tetrachloride	2.00 U
1,2-Dichloroethane	2.00 U
Trichloroethene	2.00 U
1,2-Dichloropropane	2.00 U
Bromodichloromethane	2.00 U
cis-1,3-Dichloropropene	2.00 U
trans-1,3-Dichloropropene	2.00 U
1,1,2-Trichloroethane	2.00 U
Tetrachloroethene	2.00 U
1,3-Dichloropropane	2.00 U
Dibromochloromethane	2.00 U
1,2-Dibromoethane	2.00 U
Chlorobenzene	2.00 U
1,1,1,2-Tetrachloroethane	2.00 U
Bromoform	2.00 U
1,1,2,2-Tetrachloroethane	2.00 U
2-Chlorotoluene	2.00 U
4-Chlorotoluene	2.00 U
1,3-Dichlorobenzene	2.00 U
1,4-Dichlorobenzene	2.00 U
1,2-Dichlorobenzene	2.00 U
1,2,4-Trichlorobenzene	2.00 U
Hexachlorobutadiene	2.00 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031308B08**
Associated Blank: **N/A**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/13/08	5	5	1	ALM

Parameter	Result
Dichlorodifluoromethane	2.00 U
Chloromethane	2.00 U
Vinyl chloride	2.00 U
Chloroethane	2.00 U
1,1-Dichloroethene	2.00 U
Methylene chloride	5.00 U
trans-1,2-Dichloroethene	2.00 U
1,1-Dichloroethane	2.00 U
cis-1,2-Dichloroethene	2.00 U
1,1,1-Trichloroethane	2.00 U
Carbon tetrachloride	2.00 U
1,2-Dichloroethane	2.00 U
Trichloroethene	2.00 U
1,2-Dichloropropane	2.00 U
Bromodichloromethane	2.00 U
cis-1,3-Dichloropropene	2.00 U
trans-1,3-Dichloropropene	2.00 U
1,1,2-Trichloroethane	2.00 U
Tetrachloroethene	2.00 U
1,3-Dichloropropane	2.00 U
Dibromochloromethane	2.00 U
1,2-Dibromoethane	2.00 U
Chlorobenzene	2.00 U
1,1,1,2-Tetrachloroethane	2.00 U
Bromoform	2.00 U
1,1,2,2-Tetrachloroethane	2.00 U
2-Chlorotoluene	2.00 U
4-Chlorotoluene	2.00 U
1,3-Dichlorobenzene	2.00 U
1,4-Dichlorobenzene	2.00 U
1,2-Dichlorobenzene	2.00 U
1,2,4-Trichlorobenzene	2.00 U
Hexachlorobutadiene	2.00 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	97	70-130
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Form I
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031408B04**
Associated Blank: **N/A**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/14/08	5	5	1	ALM

Parameter	Result	
Dichlorodifluoromethane	2.00	U
Chloromethane	2.00	U
Vinyl chloride	2.00	U
Chloroethane	2.00	U
1,1-Dichloroethene	2.00	U
Methylene chloride	5.00	U
trans-1,2-Dichloroethene	2.00	U
1,1-Dichloroethane	2.00	U
cis-1,2-Dichloroethene	2.00	U
1,1,1-Trichloroethane	2.00	U
Carbon tetrachloride	2.00	U
1,2-Dichloroethane	2.00	U
Trichloroethene	2.00	U
1,2-Dichloropropane	2.00	U
Bromodichloromethane	2.00	U
cis-1,3-Dichloropropene	2.00	U
trans-1,3-Dichloropropene	2.00	U
1,1,2-Trichloroethane	2.00	U
Tetrachloroethene	2.00	U
1,3-Dichloropropane	2.00	U
Dibromochloromethane	2.00	U
1,2-Dibromoethane	2.00	U
Chlorobenzene	2.00	U
1,1,1,2-Tetrachloroethane	2.00	U
Bromoform	2.00	U
1,1,2,2-Tetrachloroethane	2.00	U
2-Chlorotoluene	2.00	U
4-Chlorotoluene	2.00	U
1,3-Dichlorobenzene	2.00	U
1,4-Dichlorobenzene	2.00	U
1,2-Dichlorobenzene	2.00	U
1,2,4-Trichlorobenzene	2.00	U
Hexachlorobutadiene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	92	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Form III
Spike Recovery Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **See Below**
Associated Blank: **VW031208B02**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/12/08	5	5	1	ALM

Lab ID: VW031208B02 VW031208LCS01 VW031208LCSD01

Parameter	Blank Conc.		LCS Conc.	LCS % Recovery	LCSD Conc.	LCSD % Recovery	% RPD	RPD Limit	% Recovery Limits
Dichlorodifluoromethane	2.00	U	21.6	108	21.0	105	3	25	70-130
Chloromethane	2.00	U	21.1	106	19.9	99	6	25	70-130
Vinyl chloride	2.00	U	22.2	111	22.1	111	0	25	70-130
Chloroethane	2.00	U	24.6	123	23.0	115	7	25	70-130
1,1-Dichloroethene	2.00	U	19.3	96	19.0	95	1	25	70-130
Methylene chloride	5.00	U	18.9	94	18.8	94	0	25	70-130
trans-1,2-Dichloroethene	2.00	U	19.5	97	18.9	94	3	25	70-130
1,1-Dichloroethane	2.00	U	19.5	97	18.9	94	3	25	70-130
cis-1,2-Dichloroethene	2.00	U	19.7	98	19.0	95	4	25	70-130
1,1,1-Trichloroethane	2.00	U	19.8	99	19.1	95	4	25	70-130
Carbon tetrachloride	2.00	U	19.4	97	18.7	94	3	25	70-130
1,2-Dichloroethane	2.00	U	19.6	98	19.5	98	1	25	70-130
Trichloroethene	2.00	U	20.1	100	19.5	98	3	25	70-130
1,2-Dichloropropane	2.00	U	19.4	97	19.5	97	0	25	70-130
Bromodichloromethane	2.00	U	19.7	99	19.2	96	3	25	70-130
cis-1,3-Dichloropropene	2.00	U	19.4	97	19.3	96	1	25	70-130
trans-1,3-Dichloropropene	2.00	U	19.4	97	19.1	96	2	25	70-130
1,1,2-Trichloroethane	2.00	U	19.6	98	19.4	97	1	25	70-130
Tetrachloroethene	2.00	U	20.3	102	19.4	97	5	25	70-130
1,3-Dichloropropane	2.00	U	19.7	99	19.4	97	1	25	70-130
Dibromochloromethane	2.00	U	19.6	98	20.0	100	2	25	70-130
1,2-Dibromoethane	2.00	U	19.6	98	19.5	98	1	25	70-130
Chlorobenzene	2.00	U	19.7	98	19.2	96	3	25	70-130
1,1,1,2-Tetrachloroethane	2.00	U	19.7	98	19.7	98	0	25	70-130
Bromoform	2.00	U	19.7	98	18.7	93	5	25	70-130
1,1,2,2-Tetrachloroethane	2.00	U	19.7	99	19.3	96	2	25	70-130
2-Chlorotoluene	2.00	U	19.8	99	19.0	95	4	25	70-130
4-Chlorotoluene	2.00	U	19.0	95	18.3	91	4	25	70-130
1,3-Dichlorobenzene	2.00	U	20.0	100	19.2	96	4	25	70-130
1,4-Dichlorobenzene	2.00	U	19.6	98	19.5	97	1	25	70-130
1,2-Dichlorobenzene	2.00	U	20.3	101	19.4	97	4	25	70-130
1,2,4-Trichlorobenzene	2.00	U	20.3	101	19.4	97	5	25	70-130
Hexachlorobutadiene	2.00	U	21.9	110	19.5	98	11	25	70-130

Surrogate	% Recovery		Acceptance Range (%)
Dibromofluoromethane	98	98	70-130
1,2-Dichloroethane-d4	97	97	70-130
Toluene-d8	100	102	70-130
4-Bromofluorobenzene	100	99	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

Form III
Spike Recovery Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **See Below**
Associated Blank: **VW031308B08**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/13/08	5	5	1	ALM

Lab ID: VW031308B08 VW031308LCS04 VW031308LCSD04

Parameter	Blank Conc.		LCS Conc.	LCS % Recovery	LCSD Conc.	LCSD % Recovery	% RPD	RPD Limit	% Recovery Limits
Dichlorodifluoromethane	2.00	U	17.8	89	17.8	89	0	25	70-130
Chloromethane	2.00	U	16.4	82	16.9	85	3	25	70-130
Vinyl chloride	2.00	U	18.3	92	18.5	93	1	25	70-130
Chloroethane	2.00	U	17.4	87	18.0	90	4	25	70-130
1,1-Dichloroethene	2.00	U	20.5	103	20.6	103	0	25	70-130
Methylene chloride	5.00	U	19.9	99	20.3	102	2	25	70-130
trans-1,2-Dichloroethene	2.00	U	18.8	94	20.0	100	6	25	70-130
1,1-Dichloroethane	2.00	U	19.3	96	19.8	99	3	25	70-130
cis-1,2-Dichloroethene	2.00	U	18.4	92	19.4	97	5	25	70-130
1,1,1-Trichloroethane	2.00	U	19.0	95	19.8	99	4	25	70-130
Carbon tetrachloride	2.00	U	19.1	95	19.7	99	3	25	70-130
1,2-Dichloroethane	2.00	U	18.6	93	18.7	94	1	25	70-130
Trichloroethene	2.00	U	19.9	99	20.4	102	3	25	70-130
1,2-Dichloropropane	2.00	U	20.6	103	20.3	102	1	25	70-130
Bromodichloromethane	2.00	U	19.2	96	19.9	100	4	25	70-130
cis-1,3-Dichloropropene	2.00	U	19.7	99	19.7	99	0	25	70-130
trans-1,3-Dichloropropene	2.00	U	19.3	97	19.5	98	1	25	70-130
1,1,2-Trichloroethane	2.00	U	19.8	99	19.8	99	0	25	70-130
Tetrachloroethene	2.00	U	21.3	106	22.2	111	4	25	70-130
1,3-Dichloropropane	2.00	U	19.5	98	19.6	98	0	25	70-130
Dibromochloromethane	2.00	U	19.9	99	20.1	100	1	25	70-130
1,2-Dibromoethane	2.00	U	19.9	99	20.6	103	3	25	70-130
Chlorobenzene	2.00	U	19.6	98	20.0	100	2	25	70-130
1,1,1,2-Tetrachloroethane	2.00	U	20.1	100	20.4	102	2	25	70-130
Bromoform	2.00	U	19.8	99	19.9	99	0	25	70-130
1,1,2,2-Tetrachloroethane	2.00	U	19.5	97	18.8	94	4	25	70-130
2-Chlorotoluene	2.00	U	19.0	95	19.9	100	5	25	70-130
4-Chlorotoluene	2.00	U	19.1	95	19.8	99	4	25	70-130
1,3-Dichlorobenzene	2.00	U	20.0	100	20.7	103	3	25	70-130
1,4-Dichlorobenzene	2.00	U	19.7	98	20.2	101	3	25	70-130
1,2-Dichlorobenzene	2.00	U	19.8	99	20.4	102	3	25	70-130
1,2,4-Trichlorobenzene	2.00	U	20.0	100	20.1	101	1	25	70-130
Hexachlorobutadiene	2.00	U	20.6	103	20.3	102	2	25	70-130

Surrogate	% Recovery		Acceptance Range (%)
Dibromofluoromethane	96	96	70-130
1,2-Dichloroethane-d4	90	90	70-130
Toluene-d8	100	100	70-130
4-Bromofluorobenzene	98	100	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

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Form III
Spike Recovery Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **See Below**
Associated Blank: **VW031408B04**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	03/14/08	5	5	1	ALM

Lab ID: VW031408B04 VW031408LCS03 VW031408LCSD03

Parameter	Blank Conc.		LCS Conc.	LCS % Recovery	LCSD Conc.	LCSD % Recovery	% RPD	RPD Limit	% Recovery Limits
Dichlorodifluoromethane	2.00	U	18.9	94	19.1	95	1	25	70-130
Chloromethane	2.00	U	19.0	95	19.0	95	0	25	70-130
Vinyl chloride	2.00	U	20.6	103	21.0	105	2	25	70-130
Chloroethane	2.00	U	20.1	101	20.2	101	0	25	70-130
1,1-Dichloroethene	2.00	U	19.4	97	20.0	100	3	25	70-130
Methylene chloride	5.00	U	17.0	85	17.2	86	1	25	70-130
trans-1,2-Dichloroethene	2.00	U	18.8	94	19.3	96	3	25	70-130
1,1-Dichloroethane	2.00	U	18.8	94	19.2	96	2	25	70-130
cis-1,2-Dichloroethene	2.00	U	18.8	94	18.7	93	1	25	70-130
1,1,1-Trichloroethane	2.00	U	17.1	85	17.4	87	2	25	70-130
Carbon tetrachloride	2.00	U	15.2	76	15.6	78	3	25	70-130
1,2-Dichloroethane	2.00	U	19.6	98	19.8	99	1	25	70-130
Trichloroethene	2.00	U	16.2	81	16.7	84	3	25	70-130
1,2-Dichloropropane	2.00	U	17.4	87	17.9	89	3	25	70-130
Bromodichloromethane	2.00	U	17.0	85	17.6	88	4	25	70-130
cis-1,3-Dichloropropene	2.00	U	17.8	89	17.9	90	1	25	70-130
trans-1,3-Dichloropropene	2.00	U	17.6	88	17.7	88	0	25	70-130
1,1,2-Trichloroethane	2.00	U	17.6	88	17.8	89	1	25	70-130
Tetrachloroethene	2.00	U	16.5	82	16.8	84	2	25	70-130
1,3-Dichloropropane	2.00	U	17.8	89	18.1	91	2	25	70-130
Dibromochloromethane	2.00	U	16.9	84	16.8	84	1	25	70-130
1,2-Dibromoethane	2.00	U	17.4	87	17.8	89	2	25	70-130
Chlorobenzene	2.00	U	19.1	95	19.4	97	2	25	70-130
1,1,1,2-Tetrachloroethane	2.00	U	17.8	89	18.4	92	3	25	70-130
Bromoform	2.00	U	17.2	86	17.1	86	0	25	70-130
1,1,2,2-Tetrachloroethane	2.00	U	19.4	97	19.4	97	0	25	70-130
2-Chlorotoluene	2.00	U	19.0	95	19.0	95	0	25	70-130
4-Chlorotoluene	2.00	U	19.5	97	19.5	98	0	25	70-130
1,3-Dichlorobenzene	2.00	U	19.4	97	19.4	97	0	25	70-130
1,4-Dichlorobenzene	2.00	U	18.9	94	19.0	95	1	25	70-130
1,2-Dichlorobenzene	2.00	U	19.6	98	19.5	97	0	25	70-130
1,2,4-Trichlorobenzene	2.00	U	18.4	92	18.2	91	1	25	70-130
Hexachlorobutadiene	2.00	U	20.0	100	19.5	97	3	25	70-130

Surrogate	% Recovery		Acceptance Range (%)
Dibromofluoromethane	100	101	70-130
1,2-Dichloroethane-d4	106	106	70-130
Toluene-d8	98	97	70-130
4-Bromofluorobenzene	99	99	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

Supporting Quality Control Results

Form II
Surrogate Recovery
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Matrix: **Water**

Case: **N/A** SDG: **N/A**

Client ID	Lab ID	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	VW031208LCS01	98	97	100	100
LCSD	VW031208LCSD01	98	97	102	99
Blank	VW031208B02	102	101	101	96
TB-001-20080306-01	0803047-14	100	102	99	96
MW-266Ma-20080306-01	0803047-03	104	111	93	97
MW-267S-20080306-01	0803047-05	104	113	91	97
MW-268D-20080306-01	0803047-08	107	115	99	99
MW-551-20080306-01	0803047-09	107	116	92	98
MW-265M-20080306-01	0803047-02	106	119	101	99
LCS	VW031308LCS04	96	90	100	98
LCSD	VW031308LCSD04	96	90	100	100
Blank	VW031308B08	97	95	98	96
MW-261S-20080306-01	0803047-01	99	102	99	96
MW-268M-20080306-01	0803047-07	97	100	99	95
DUP-001-20080306-01	0803047-12	100	107	99	96
DUP-002-20080306-01	0803047-13	99	107	99	96
MW-266Mb-20080306-01	0803047-04	102	108	94	98
MW-267M-20080306-01	0803047-06	104	109	102	96
MW-552-20080306-01	0803047-10	105	114	99	98

N/A - Not Applicable

Surrogate	QC Limit
Dibromofluoromethane	70-130
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromofluorobenzene	70-130

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Form II
Surrogate Recovery
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Matrix: **Water**

Case: **N/A** SDG: **N/A**

Client ID	Lab ID	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
LCS	VW031408LCS03	100	106	98	99
LCSD	VW031408LCSD03	101	106	97	99
Blank	VW031408B04	103	110	92	92
MW-267S-20080306-01	0803047-05E	103	107	93	91
MW-553-20080306-01	0803047-11	103	110	93	91

N/A - Not Applicable

Surrogate	QC Limit
Dibromofluoromethane	70-130
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromofluorobenzene	70-130

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Form IV
Method Blank Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031208B02**
Date Analyzed: **03/12/08 16:51**

Client ID	Lab ID	Date/Time Analyzed
LCS	VW031208LCS01	03/12/08 15:19
LCSD	VW031208LCSD01	03/12/08 15:50
TB-001-20080306-01	0803047-14	03/12/08 17:22
MW-266Ma-20080306-01	0803047-03	03/12/08 19:55
MW-267S-20080306-01	0803047-05	03/12/08 20:26
MW-268D-20080306-01	0803047-08	03/12/08 20:57
MW-551-20080306-01	0803047-09	03/12/08 21:27
MW-265M-20080306-01	0803047-02	03/12/08 22:29

N/A - Not Applicable

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Form IV
Method Blank Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031308B08**
Date Analyzed: **03/13/08 18:52**

Case: **N/A** SDG: **N/A**

Client ID	Lab ID	Date/Time Analyzed
LCS	VW031308LCS04	03/13/08 17:20
LCSD	VW031308LCSD04	03/13/08 17:50
MW-261S-20080306-01	0803047-01	03/13/08 19:56
MW-268M-20080306-01	0803047-07	03/13/08 20:29
DUP-001-20080306-01	0803047-12	03/13/08 21:02
DUP-002-20080306-01	0803047-13	03/13/08 21:36
MW-266Mb-20080306-01	0803047-04	03/13/08 22:09
MW-267M-20080306-01	0803047-06	03/13/08 22:42
MW-552-20080306-01	0803047-10	03/13/08 23:16

N/A - Not Applicable

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Form IV
Method Blank Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **VW031408B04**
Date Analyzed: **03/14/08 10:44**

Client ID	Lab ID	Date/Time Analyzed
LCS	VW031408LCS03	03/14/08 09:48
LCSD	VW031408LCSD03	03/14/08 10:16
MW-267S-20080306-01	0803047-05E	03/14/08 11:15
MW-553-20080306-01	0803047-11	03/14/08 12:17

N/A - Not Applicable

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Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T1031201**
Date Analyzed: **03/12/08 08:39**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	21.4	45101	Pass
75	95	30	60	47.1	99181	Pass
95	95	100	100	100	210496	Pass
96	95	5	9	6.6	13976	Pass
173	174	0	2	0	0	Pass
174	95	50	100	69.2	145600	Pass
175	174	5	9	7.7	11160	Pass
176	174	95	101	97.7	142208	Pass
177	176	5	9	6.6	9418	Pass

Client ID	Lab ID	Date/Time Analyzed
Initial Calibration	I1031201	03/12/08 09:10
Initial Calibration	I1031202	03/12/08 09:41
Initial Calibration	I1031204	03/12/08 10:42
Initial Calibration	I1031205	03/12/08 11:13
Initial Calibration	I1031206	03/12/08 11:44
Initial Calibration	I1031207	03/12/08 14:17

N/A - Not Applicable

Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T1031202**
Date Analyzed: **03/12/08 13:47**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	21.5	44045	Pass
75	95	30	60	46.4	94901	Pass
95	95	100	100	100	204693	Pass
96	95	5	9	6.9	14054	Pass
173	174	0	2	0	0	Pass
174	95	50	100	71.6	146475	Pass
175	174	5	9	7.5	11025	Pass
176	174	95	101	95.6	140075	Pass
177	176	5	9	6.4	8962	Pass

Client ID	Lab ID	Date/Time Analyzed
CCV	C1031201	03/12/08 14:48
LCS	VW031208LCS01	03/12/08 15:19
LCSD	VW031208LCSD01	03/12/08 15:50
Blank	VW031208B02	03/12/08 16:51
TB-001-20080306-01	0803047-14	03/12/08 17:22
MW-266Ma-20080306-01	0803047-03	03/12/08 19:55
MW-267S-20080306-01	0803047-05	03/12/08 20:26
MW-268D-20080306-01	0803047-08	03/12/08 20:57
MW-551-20080306-01	0803047-09	03/12/08 21:27
MW-265M-20080306-01	0803047-02	03/12/08 22:29

N/A - Not Applicable

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Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T1031301**
Date Analyzed: **03/13/08 08:44**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	24.5	43397	Pass
75	95	30	60	51.1	90472	Pass
95	95	100	100	100	177152	Pass
96	95	5	9	6.1	10803	Pass
173	174	0	2	0	0	Pass
174	95	50	100	63.1	111861	Pass
175	174	5	9	7.8	8708	Pass
176	174	95	101	97.1	108616	Pass
177	176	5	9	6.4	6997	Pass

Client ID	Lab ID	Date/Time Analyzed
Initial Calibration	I1031301	03/13/08 11:42
Initial Calibration	I1031302	03/13/08 12:12
Initial Calibration	I1031303	03/13/08 12:43
Initial Calibration	I1031304	03/13/08 13:14
Initial Calibration	I1031305	03/13/08 13:45
Initial Calibration	I1031306	03/13/08 14:15

N/A - Not Applicable

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Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T3031301**
Date Analyzed: **03/13/08 11:21**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	25.4	61944	Pass
75	95	30	60	56.5	137792	Pass
95	95	100	100	100	243712	Pass
96	95	5	9	6.8	16672	Pass
173	174	0	2	0	0	Pass
174	95	50	100	67.3	163904	Pass
175	174	5	9	7.3	12039	Pass
176	174	95	101	95.7	156928	Pass
177	176	5	9	6.8	10683	Pass

Client ID	Lab ID	Date/Time Analyzed
Initial Calibration	I3031301	03/13/08 11:49
Initial Calibration	I3031302	03/13/08 12:17
Initial Calibration	I3031303	03/13/08 12:45
Initial Calibration	I3031304	03/13/08 13:14
Initial Calibration	I3031305	03/13/08 13:42
Initial Calibration	I3031306	03/13/08 14:10

N/A - Not Applicable

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Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T1031302**
Date Analyzed: **03/13/08 16:18**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	20.6	42256	Pass
75	95	30	60	47	96448	Pass
95	95	100	100	100	205376	Pass
96	95	5	9	6.5	13449	Pass
173	174	0	2	0	0	Pass
174	95	50	100	68.7	141099	Pass
175	174	5	9	7.9	11150	Pass
176	174	95	101	96.6	136320	Pass
177	176	5	9	6.8	9229	Pass

Client ID	Lab ID	Date/Time Analyzed
CCV	C1031303	03/13/08 16:49
LCS	VW031308LCS04	03/13/08 17:20
LCSD	VW031308LCSD04	03/13/08 17:50
Blank	VW031308B08	03/13/08 18:52
MW-261S-20080306-01	0803047-01	03/13/08 19:56
MW-268M-20080306-01	0803047-07	03/13/08 20:29
DUP-001-20080306-01	0803047-12	03/13/08 21:02
DUP-002-20080306-01	0803047-13	03/13/08 21:36
MW-266Mb-20080306-01	0803047-04	03/13/08 22:09
MW-267M-20080306-01	0803047-06	03/13/08 22:42
MW-552-20080306-01	0803047-10	03/13/08 23:16

N/A - Not Applicable

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Form V
Tune Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **T3031401**
Date Analyzed: **03/14/08 08:51**

Target Mass	Relative To Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result
50	95	15	40	27.1	52371	Pass
75	95	30	60	57.6	111309	Pass
95	95	100	100	100	193152	Pass
96	95	5	9	6.3	12223	Pass
173	174	0	2	0	0	Pass
174	95	50	100	65.8	127163	Pass
175	174	5	9	7.5	9592	Pass
176	174	95	101	99.1	125968	Pass
177	176	5	9	6.9	8721	Pass

Client ID	Lab ID	Date/Time Analyzed
CCV	C3031401	03/14/08 09:19
LCS	VW031408LCS03	03/14/08 09:48
LCSD	VW031408LCSD03	03/14/08 10:16
Blank	VW031408B04	03/14/08 10:44
MW-267S-20080306-01	0803047-05E	03/14/08 11:15
MW-553-20080306-01	0803047-11	03/14/08 12:17

N/A - Not Applicable

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Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**

Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I1031201	03/12/08 09:10
I1031202	03/12/08 09:41
I1031204	03/12/08 10:42
I1031205	03/12/08 11:13
I1031206	03/12/08 11:44
I1031207	03/12/08 14:17

	Response Factors							
Parameter	**2**	**5**	**50**	**100**	**200**	**20**	**Mean**	**% RSD**
Dichlorodifluoromethane	0.88	1.12	1.34	1.53	1.37	1.51	1.29	19.2[a]
Chloromethane	0.99	1.26	1.35	1.54	1.39	1.48	1.34	14.7
Vinyl chloride	0.65	0.84	0.92	1.05	0.99	1.02	0.91	16.3
Chloroethane	0.32	0.43	0.42	0.48	0.23	0.47	0.39	24.5[a]
1,1-Dichloroethene	1.42	1.48	1.52	1.45	1.34	1.35	1.43	5.1
Methylene chloride		1.17	1.09	1.08	1.04	1.04	1.08	5.1
trans-1,2-Dichloroethene	1.32	1.55	1.56	1.50	1.40	1.39	1.45	6.6
1,1-Dichloroethane	1.80	2.02	1.92	1.87	1.75	1.78	1.86	5.4
cis-1,2-Dichloroethene	1.48	1.61	1.65	1.54	1.51	1.48	1.55	4.6
1,1,1-Trichloroethane	1.30	1.52	1.51	1.48	1.41	1.40	1.44	5.8
Carbon tetrachloride	1.27	1.41	1.39	1.37	1.29	1.30	1.34	4.3
1,2-Dichloroethane	1.41	1.63	1.56	1.53	1.40	1.43	1.50	6.3
Trichloroethene	0.44	0.48	0.47	0.46	0.47	0.45	0.46	3.2
1,2-Dichloropropane	0.48	0.53	0.50	0.49	0.49	0.47	0.49	3.8
Bromodichloromethane	0.66	0.71	0.69	0.68	0.69	0.65	0.68	3.0
cis-1,3-Dichloropropene	0.74	0.82	0.82	0.81	0.80	0.77	0.79	4.0
trans-1,3-Dichloropropene	0.60	0.74	0.75	0.74	0.74	0.68	0.71	8.3
1,1,2-Trichloroethane	0.35	0.43	0.40	0.40	0.40	0.38	0.39	6.8
Tetrachloroethene	0.35	0.38	0.38	0.39	0.41	0.36	0.38	5.3
1,3-Dichloropropane	0.69	0.81	0.77	0.77	0.77	0.73	0.75	5.4
Dibromochloromethane	0.51	0.59	0.61	0.62	0.63	0.57	0.59	7.6
1,2-Dibromoethane	0.46	0.53	0.53	0.54	0.55	0.49	0.52	6.9
Chlorobenzene	0.85	0.90	0.86	0.86	0.88	0.82	0.86	3.0
1,1,1,2-Tetrachloroethane	0.30	0.34	0.35	0.35	0.34	0.32	0.33	5.9
Bromoform	0.18	0.23	0.25	0.25	0.26	0.21	0.23	12.6
1,1,2,2-Tetrachloroethane	0.40	0.45	0.48	0.48	0.47	0.44	0.45	6.9
2-Chlorotoluene	0.80	0.88	0.90	0.89	0.91	0.83	0.87	5.1
4-Chlorotoluene	0.93	1.03	1.07	1.05	1.07	0.95	1.02	5.9
1,3-Dichlorobenzene	0.53	0.57	0.62	0.63	0.64	0.57	0.59	7.4
1,4-Dichlorobenzene	0.54	0.62	0.66	0.66	0.69	0.58	0.63	8.9
1,2-Dichlorobenzene	0.50	0.56	0.62	0.63	0.65	0.56	0.59	9.5
1,2,4-Trichlorobenzene	0.23	0.25	0.30	0.31	0.33	0.27	0.28	13.6

N/A - Not Applicable
[a] - Value outside of QC advisory limits.

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Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**

Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I1031201	03/12/08 09:10
I1031202	03/12/08 09:41
I1031204	03/12/08 10:42
I1031205	03/12/08 11:13
I1031206	03/12/08 11:44
I1031207	03/12/08 14:17

	Response Factors							
Parameter	**2**	**5**	**50**	**100**	**200**	**20**	**Mean**	**% RSD**
Hexachlorobutadiene	0.081	0.079	0.092	0.094	0.098	0.085	0.088	8.5
Dibromofluoromethane	0.89	0.90	0.90	0.89	0.82	0.88	0.88	3.3
1,2-Dichloroethane-d4	0.81	0.83	0.83	0.82	0.74	0.81	0.81	4.0
Toluene-d8	1.23	1.24	1.25	1.25	1.26	1.24	1.25	0.9
4-Bromofluorobenzene	0.55	0.56	0.59	0.58	0.57	0.57	0.57	2.4
Average RSD								7.3

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**

Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I1031301	03/13/08 11:42
I1031302	03/13/08 12:12
I1031303	03/13/08 12:43
I1031304	03/13/08 13:14
I1031305	03/13/08 13:45
I1031306	03/13/08 14:15

	Response Factors							
Parameter	**2**	**5**	**20**	**50**	**100**	**200**	**Mean**	**% RSD**
Dichlorodifluoromethane	1.45	1.45	1.52	1.65	1.55	1.35	1.50	6.9
Chloromethane	1.78	1.56	1.49	1.64	1.56	1.42	1.58	7.9
Vinyl chloride	1.05	1.01	1.09	1.18	1.10	0.97	1.07	6.8
Chloroethane	0.59	0.51	0.49	0.54	0.51	0.41	0.51	11.8
1,1-Dichloroethene	1.51	1.35	1.36	1.44	1.37	1.22	1.37	7.1
Methylene chloride		1.05	1.01	1.08	1.05	0.99	1.04	3.4
trans-1,2-Dichloroethene	1.67	1.45	1.45	1.56	1.47	1.31	1.49	8.0
1,1-Dichloroethane	2.07	1.87	1.79	1.98	1.83	1.67	1.87	7.5
cis-1,2-Dichloroethene	1.83	1.57	1.59	1.70	1.64	1.45	1.63	8.0
1,1,1-Trichloroethane	1.70	1.48	1.48	1.56	1.50	1.36	1.51	7.5
Carbon tetrachloride	1.53	1.35	1.34	1.43	1.35	1.23	1.37	7.3
1,2-Dichloroethane	1.64	1.65	1.58	1.71	1.63	1.38	1.60	7.0
Trichloroethene	0.58	0.49	0.44	0.49	0.48	0.46	0.49	10.3
1,2-Dichloropropane	0.53	0.50	0.49	0.53	0.51	0.49	0.51	3.9
Bromodichloromethane	0.73	0.68	0.67	0.75	0.73	0.69	0.71	5.0
cis-1,3-Dichloropropene	0.81	0.77	0.78	0.87	0.85	0.81	0.81	4.9
trans-1,3-Dichloropropene	0.69	0.68	0.71	0.79	0.78	0.73	0.73	6.3
1,1,2-Trichloroethane	0.40	0.40	0.39	0.42	0.42	0.40	0.40	3.1
Tetrachloroethene	0.40	0.35	0.34	0.39	0.39	0.40	0.38	7.2
1,3-Dichloropropane	0.76	0.77	0.75	0.81	0.81	0.76	0.77	3.6
Dibromochloromethane	0.61	0.54	0.57	0.64	0.64	0.63	0.60	6.9
1,2-Dibromoethane	0.50	0.49	0.49	0.55	0.56	0.53	0.52	5.5
Chlorobenzene	0.95	0.83	0.80	0.88	0.88	0.86	0.87	5.9
1,1,1,2-Tetrachloroethane	0.35	0.32	0.32	0.36	0.35	0.33	0.34	5.2
Bromoform	0.20	0.19	0.22	0.24	0.25	0.24	0.22	10.9
1,1,2,2-Tetrachloroethane	0.42	0.42	0.45	0.48	0.47	0.44	0.45	5.4
2-Chlorotoluene	0.98	0.84	0.84	0.96	0.92	0.90	0.91	6.4
4-Chlorotoluene	1.03	0.92	0.99	1.12	1.09	1.07	1.04	7.0
1,3-Dichlorobenzene	0.57	0.53	0.56	0.65	0.64	0.63	0.60	8.5
1,4-Dichlorobenzene	0.63	0.57	0.61	0.69	0.68	0.67	0.64	7.2
1,2-Dichlorobenzene	0.56	0.53	0.57	0.64	0.64	0.62	0.59	8.0
1,2,4-Trichlorobenzene	0.26	0.24	0.27	0.32	0.32	0.32	0.29	12.4

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**

Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I1031301	03/13/08 11:42
I1031302	03/13/08 12:12
I1031303	03/13/08 12:43
I1031304	03/13/08 13:14
I1031305	03/13/08 13:45
I1031306	03/13/08 14:15

Response Factors

Parameter	2	5	20	50	100	200	Mean	% RSD
Hexachlorobutadiene	0.11	0.083	0.083	0.097	0.096	0.095	0.094	10.7
Dibromofluoromethane	0.90	0.91	0.92	0.91	0.89	0.84	0.90	3.2
1,2-Dichloroethane-d4	0.85	0.91	0.90	0.88	0.84	0.74	0.85	7.1
Toluene-d8	1.28	1.27	1.26	1.30	1.30	1.31	1.29	1.5
4-Bromofluorobenzene	0.57	0.58	0.59	0.61	0.60	0.58	0.59	2.5
Average RSD								6.7

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough** Lab Code: **MA00030**
Project: **L0803236 - ERM BOSTON** ETR: **0803047**
Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I3031301	03/13/08 11:49
I3031302	03/13/08 12:17
I3031303	03/13/08 12:45
I3031304	03/13/08 13:14
I3031305	03/13/08 13:42
I3031306	03/13/08 14:10

	Response Factors							
Parameter	**2**	**5**	**20**	**50**	**100**	**200**	**Mean**	**% RSD**
Dichlorodifluoromethane	0.83	0.85	0.86	0.86	0.84	0.76	0.83	4.5
Chloromethane	1.15	1.04	0.97	0.98	0.96	0.90	1.00	8.8
Vinyl chloride	0.79	0.75	0.72	0.73	0.71	0.66	0.73	6.0
Chloroethane	0.45	0.42	0.40	0.40	0.38		0.41	6.3
1,1-Dichloroethene	0.93	0.84	0.79	0.80	0.78	0.72	0.81	9.0
Methylene chloride	0.68	0.51	0.44	0.55	0.54	0.50	0.54	15.2[a]
trans-1,2-Dichloroethene	1.02	0.91	0.89	0.94	0.93	0.86	0.92	6.0
1,1-Dichloroethane	1.36	1.21	1.16	1.23	1.20	1.10	1.21	7.3
cis-1,2-Dichloroethene	0.91	0.91	0.87	0.94	0.94	0.91	0.91	2.8
1,1,1-Trichloroethane	0.85	0.77	0.76	0.83	0.83	0.81	0.81	4.4
Carbon tetrachloride	0.68	0.58	0.54	0.60	0.61	0.61	0.60	7.7
1,2-Dichloroethane	1.06	1.00	0.95	1.00	1.01	0.95	0.99	4.1
Trichloroethene	0.25	0.21	0.20	0.22	0.22	0.22	0.22	7.2
1,2-Dichloropropane	0.28	0.25	0.25	0.27	0.27	0.26	0.26	4.2
Bromodichloromethane	0.30	0.28	0.28	0.31	0.32	0.32	0.30	6.1
cis-1,3-Dichloropropene	0.32	0.33	0.35	0.40	0.41	0.40	0.37	11.5
trans-1,3-Dichloropropene	0.30	0.29	0.32	0.37	0.39	0.39	0.34	13.0
1,1,2-Trichloroethane	0.19	0.18	0.18	0.19	0.19	0.19	0.19	3.7
Tetrachloroethene	0.18	0.17	0.16	0.17	0.17	0.17	0.17	3.9
1,3-Dichloropropane	0.38	0.37	0.38	0.42	0.42	0.40	0.39	5.0
Dibromochloromethane	0.17	0.16	0.17	0.19	0.20	0.21	0.18	10.8
1,2-Dibromoethane	0.18	0.18	0.18	0.20	0.20	0.20	0.19	4.9
Chlorobenzene	0.80	0.76	0.74	0.82	0.83	0.80	0.79	4.4
1,1,1,2-Tetrachloroethane	0.24	0.23	0.25	0.28	0.30	0.29	0.26	10.9
Bromoform	0.11	0.12	0.14	0.17	0.19	0.19	0.15	23.8[a]
1,1,2,2-Tetrachloroethane	0.39	0.38	0.40	0.45	0.45	0.43	0.42	7.2
2-Chlorotoluene	0.77	0.75	0.82	0.96	0.97	0.95	0.87	11.6
4-Chlorotoluene	0.80	0.82	0.89	1.03	1.05	1.02	0.94	11.9
1,3-Dichlorobenzene	0.50	0.46	0.49	0.56	0.57	0.55	0.52	8.6
1,4-Dichlorobenzene	0.52	0.48	0.51	0.58	0.59	0.57	0.54	8.2
1,2-Dichlorobenzene	0.46	0.44	0.48	0.55	0.55	0.53	0.50	9.4
1,2,4-Trichlorobenzene	0.23	0.21	0.23	0.28	0.30	0.29	0.26	15.5[a]

N/A - Not Applicable
[a] - Value outside of QC advisory limits.

Form VI
Initial Calibration Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**

Case: **N/A** SDG: **N/A**

Lab ID	Date/Time Analyzed
I3031301	03/13/08 11:49
I3031302	03/13/08 12:17
I3031303	03/13/08 12:45
I3031304	03/13/08 13:14
I3031305	03/13/08 13:42
I3031306	03/13/08 14:10

Response Factors

Parameter	2	5	20	50	100	200	Mean	% RSD
Hexachlorobutadiene	0.11	0.073	0.079	0.089	0.092	0.091	0.088	12.8
Dibromofluoromethane	0.59	0.58	0.59	0.59	0.58	0.57	0.58	1.5
1,2-Dichloroethane-d4	0.97	0.94	0.96	0.95	0.97	0.94	0.95	1.4
Toluene-d8	1.01	1.02	1.01	0.99	1.00	0.99	1.00	1.1
4-Bromofluorobenzene	0.52	0.52	0.52	0.53	0.53	0.52	0.52	0.9
Average RSD								7.6

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VII
Calibration Verification
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C1031201**

Parameter	Ave. RF	CCV RF	Percent Deviation	Deviation Limit
Dichlorodifluoromethane	1.29	1.22	5.3	30
Chloromethane	1.34	1.25	6.4	30
Vinyl chloride	0.91	0.86	6.0	20
Chloroethane	0.39	0.40	0.6	30
1,1-Dichloroethene	1.43	1.42	0.2	20
Methylene chloride	1.08	1.06	2.3	30
trans-1,2-Dichloroethene	1.45	1.47	0.8	30
1,1-Dichloroethane	1.86	1.81	2.6	30
cis-1,2-Dichloroethene	1.55	1.53	1.1	30
1,1,1-Trichloroethane	1.44	1.44	0.1	30
Carbon tetrachloride	1.34	1.32	1.6	30
1,2-Dichloroethane	1.50	1.49	0.8	30
Trichloroethene	0.46	0.47	2.0	30
1,2-Dichloropropane	0.49	0.49	0.6	20
Bromodichloromethane	0.68	0.69	1.1	30
cis-1,3-Dichloropropene	0.79	0.81	1.4	30
trans-1,3-Dichloropropene	0.71	0.73	2.7	30
1,1,2-Trichloroethane	0.39	0.40	3.0	30
Tetrachloroethene	0.38	0.38	1.5	30
1,3-Dichloropropane	0.75	0.77	2.6	30
Dibromochloromethane	0.59	0.62	4.6	30
1,2-Dibromoethane	0.52	0.54	3.8	30
Chlorobenzene	0.86	0.86	0.6	30
1,1,1,2-Tetrachloroethane	0.33	0.34	2.3	30
Bromoform	0.23	0.25	6.4	30
1,1,2,2-Tetrachloroethane	0.45	0.47	3.8	30
2-Chlorotoluene	0.87	0.88	1.7	30
4-Chlorotoluene	1.02	1.03	1.5	30
1,3-Dichlorobenzene	0.59	0.61	3.8	30
1,4-Dichlorobenzene	0.63	0.64	2.2	30
1,2-Dichlorobenzene	0.59	0.61	4.8	30
1,2,4-Trichlorobenzene	0.28	0.30	4.8	30
Hexachlorobutadiene	0.088	0.090	2.0	30
Dibromofluoromethane	0.88	0.87	1.5	30
1,2-Dichloroethane-d4	0.81	0.79	1.9	30
Toluene-d8	1.25	1.28	2.4	30
4-Bromofluorobenzene	0.57	0.58	1.0	30
Average % D			2.5	

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VII
Calibration Verification
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C1031303**

Case: **N/A** SDG: **N/A**

Parameter	Ave. RF	CCV RF	Percent Deviation	Deviation Limit
Dichlorodifluoromethane	1.50	1.45	3.0	30
Chloromethane	1.58	1.40	11.2	30
Vinyl chloride	1.07	0.98	8.2	20
Chloroethane	0.51	0.46	9.1	30
1,1-Dichloroethene	1.37	1.27	7.5	20
Methylene chloride	1.04	1.01	2.6	30
trans-1,2-Dichloroethene	1.49	1.35	9.0	30
1,1-Dichloroethane	1.87	1.72	8.3	30
cis-1,2-Dichloroethene	1.63	1.51	7.1	30
1,1,1-Trichloroethane	1.51	1.40	7.6	30
Carbon tetrachloride	1.37	1.26	8.0	30
1,2-Dichloroethane	1.60	1.50	6.0	30
Trichloroethene	0.49	0.47	4.8	30
1,2-Dichloropropane	0.51	0.49	3.1	20
Bromodichloromethane	0.71	0.70	2.0	30
cis-1,3-Dichloropropene	0.81	0.80	1.4	30
trans-1,3-Dichloropropene	0.73	0.73	0.5	30
1,1,2-Trichloroethane	0.40	0.40	1.0	30
Tetrachloroethene	0.38	0.38	0.3	30
1,3-Dichloropropane	0.77	0.76	2.5	30
Dibromochloromethane	0.60	0.62	2.2	30
1,2-Dibromoethane	0.52	0.53	2.4	30
Chlorobenzene	0.87	0.84	3.1	30
1,1,1,2-Tetrachloroethane	0.34	0.33	1.5	30
Bromoform	0.22	0.23	3.9	30
1,1,2,2-Tetrachloroethane	0.45	0.44	2.1	30
2-Chlorotoluene	0.91	0.87	4.0	30
4-Chlorotoluene	1.04	1.03	1.0	30
1,3-Dichlorobenzene	0.60	0.61	1.8	30
1,4-Dichlorobenzene	0.64	0.64	0.3	30
1,2-Dichlorobenzene	0.59	0.60	0.7	30
1,2,4-Trichlorobenzene	0.29	0.30	2.1	30
Hexachlorobutadiene	0.094	0.089	5.7	30
Dibromofluoromethane	0.90	0.88	2.1	30
1,2-Dichloroethane-d4	0.85	0.80	6.6	30
Toluene-d8	1.29	1.31	1.3	30
4-Bromofluorobenzene	0.59	0.59	0.1	30
Average % D			3.9	

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VII
Calibration Verification
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C3031401**

Case: **N/A** SDG: **N/A**

Parameter	Ave. RF	CCV RF	Percent Deviation	Deviation Limit
Dichlorodifluoromethane	0.83	0.88	5.6	30
Chloromethane	1.00	1.01	1.3	30
Vinyl chloride	0.73	0.78	6.7	20
Chloroethane	0.41	0.44	7.0	30
1,1-Dichloroethene	0.81	0.88	8.3	20
Methylene chloride	0.54	0.49	9.2	30
trans-1,2-Dichloroethene	0.92	0.94	2.3	30
1,1-Dichloroethane	1.21	1.25	3.1	30
cis-1,2-Dichloroethene	0.91	0.95	3.9	30
1,1,1-Trichloroethane	0.81	0.82	1.6	30
Carbon tetrachloride	0.60	0.57	6.2	30
1,2-Dichloroethane	0.99	1.05	5.6	30
Trichloroethene	0.22	0.22	1.1	30
1,2-Dichloropropane	0.26	0.26	0.4	20
Bromodichloromethane	0.30	0.30	0.3	30
cis-1,3-Dichloropropene	0.37	0.39	5.7	30
trans-1,3-Dichloropropene	0.34	0.37	6.3	30
1,1,2-Trichloroethane	0.19	0.19	0.6	30
Tetrachloroethene	0.17	0.17	0.6	30
1,3-Dichloropropane	0.39	0.40	2.4	30
Dibromochloromethane	0.18	0.18	0.2	30
1,2-Dibromoethane	0.19	0.19	0.8	30
Chlorobenzene	0.79	0.84	6.0	30
1,1,1,2-Tetrachloroethane	0.26	0.28	5.4	30
Bromoform	0.15	0.17	7.9	30
1,1,2,2-Tetrachloroethane	0.42	0.46	9.8	30
2-Chlorotoluene	0.87	0.98	13.0	30
4-Chlorotoluene	0.94	1.08	15.1	30
1,3-Dichlorobenzene	0.52	0.58	12.0	30
1,4-Dichlorobenzene	0.54	0.59	10.2	30
1,2-Dichlorobenzene	0.50	0.57	13.0	30
1,2,4-Trichlorobenzene	0.26	0.28	8.8	30
Hexachlorobutadiene	0.088	0.092	4.0	30
Dibromofluoromethane	0.58	0.60	3.4	30
1,2-Dichloroethane-d4	0.95	1.02	7.0	30
Toluene-d8	1.00	1.00	0.2	30
4-Bromofluorobenzene	0.52	0.53	0.8	30
Average % D			5.3	

N/A - Not Applicable

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VIII
Internal Standard Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C1031201**

Case: **N/A** SDG: **N/A**

		Pentafluorobenzene		Fluorobenzene		Chlorobenzene-D5	
		Area	RT	Area	RT	Area	RT
Standard:		309617	5.67	707642	6.40	1005235	10.67
Upper Limit:		619234	6.17	1415284	6.90	2010470	11.17
Lower Limit:		154808	5.17	353821	5.90	502618	10.17
Client ID	**Lab ID**						
LCS	VW031208LCS01	315245	5.67	722079	6.40	1000948	10.66
LCSD	VW031208LCSD01	311768	5.67	709298	6.40	1003320	10.67
Blank	VW031208B02	299831	5.67	689387	6.40	954353	10.66
TB-001-20080306-01	0803047-14	295331	5.67	669932	6.40	938054	10.67
MW-266Ma-20080306-01	0803047-03	264297	5.66	612347	6.39	874901	10.65
MW-267S-20080306-01	0803047-05	257676	5.66	599865	6.39	846262	10.65
MW-268D-20080306-01	0803047-08	245299	5.66	580923	6.39	821454	10.65
MW-551-20080306-01	0803047-09	247253	5.65	586248	6.39	827947	10.65
MW-265M-20080306-01	0803047-02	240338	5.65	580633	6.38	812238	10.65

N/A - Not Applicable

Area Upper Limit = +100% of internal standard.
Area Lower Limit = -50% of internal standard.
RT = Retention Time.
RT Upper Limit = +0.5 minutes of internal standard RT.
RT Lower Limit = -0.5 minutes of internal standard RT.

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VIII
Internal Standard Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C1031303**

Case: **N/A** SDG: **N/A**

		Pentafluorobenzene		Fluorobenzene		Chlorobenzene-D5	
		Area	RT	Area	RT	Area	RT
Standard:		300650	5.63	681462	6.37	998678	10.63
Upper Limit:		601300	6.13	1362924	6.87	1997356	11.13
Lower Limit:		150325	5.13	340731	5.87	499339	10.13
Client ID	**Lab ID**						
LCS	VW031308LCS04	306283	5.64	683768	6.37	987486	10.63
LCSD	VW031308LCSD04	304003	5.64	675769	6.37	975180	10.63
Blank	VW031308B08	290770	5.64	666016	6.37	933650	10.63
MW-261S-20080306-01	0803047-01	267004	5.64	627426	6.37	882118	10.63
MW-268M-20080306-01	0803047-07	271639	5.64	623288	6.37	880136	10.63
DUP-001-20080306-01	0803047-12	257177	5.64	607178	6.37	862728	10.63
DUP-002-20080306-01	0803047-13	248110	5.64	585276	6.37	839672	10.63
MW-266Mb-20080306-01	0803047-04	241250	5.64	567830	6.37	798437	10.63
MW-267M-20080306-01	0803047-06	233537	5.64	541804	6.37	787670	10.63
MW-552-20080306-01	0803047-10	225033	5.64	552794	6.37	780704	10.63

N/A - Not Applicable

Area Upper Limit = +100% of internal standard.
Area Lower Limit = -50% of internal standard.
RT = Retention Time.
RT Upper Limit = +0.5 minutes of internal standard RT.
RT Lower Limit = -0.5 minutes of internal standard RT.

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Form VIII
Internal Standard Summary
Volatile Organics by 8260

Client: **Alpha Analytical - Westborough**
Project: **L0803236 - ERM BOSTON**
Case: **N/A** SDG: **N/A**

Lab Code: **MA00030**
ETR: **0803047**
Lab ID: **C3031401**

		Pentafluorobenzene		Fluorobenzene		Chlorobenzene-D5	
		Area	RT	Area	RT	Area	RT
Standard:		621796	6.37	1605667	7.16	1052776	11.54
Upper Limit:		1243592	6.87	3211334	7.66	2105552	12.04
Lower Limit:		310898	5.87	802834	6.66	526388	11.04
Client ID	**Lab ID**						
LCS	VW031408LCS03	624149	6.37	1624237	7.16	1037136	11.54
LCSD	VW031408LCSD03	629953	6.37	1629658	7.16	1045341	11.54
Blank	VW031408B04	583074	6.37	1576351	7.16	983660	11.54
MW-267S-20080306-01	0803047-05E	579310	6.37	1535049	7.16	966649	11.54
MW-553-20080306-01	0803047-11	558339	6.37	1491975	7.16	932559	11.54

N/A - Not Applicable

Area Upper Limit = +100% of internal standard.
Area Lower Limit = -50% of internal standard.
RT = Retention Time.
RT Upper Limit = +0.5 minutes of internal standard RT.
RT Lower Limit = -0.5 minutes of internal standard RT.

320 Forbes Blvd, Mansfield, MA 02048, (508) 822-9300, Fax (508) 822-3288

Chain of Custody Records

CHAIN OF CUSTODY PAGE 1 OF 2

Date Rec'd in Lab: 3/7/08

ALPHA Job #: L0803236

ALPHA
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 6th 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

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland, MA
Project #: 0079387
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 3/14/08 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

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

MA MCP PRESUMPTIVE CERTAINTY -- CT REASONABLE CONFIDENCE PROTOCOLS

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

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs 8260 by 8260	Total Phosphorus	Sulfate & Nitrate	Des. Fe (Field Filtered)	TOC	Sample Specific Comments
03236.1	MW-261S-20080306-01	3/6/08	12:00	GW	JDF	2	1	1	1	2	
2	MW-265M-20080306-01		09:45		EB	2	1	1	1	2	
3	MW-266Ma-20080306-01		13:45		JM	2	1	1	1	2	
4	MW-266Mb-20080306-01		15:25		JM	2	1	1	1	2	
5	MW-267S-20080306-01		10:00		JM	2	1	1	1	2	
6	MW-267M-20080306-01		11:20		JM	2	1	1	1	2	
7	MW-268M-20080306-01		11:45		EB	2	1	1	1	2	
8	MW-268D-20080306-01		12:30		EB	2	1	1	1	2	
9	MW-551-20080306-01		16:30		EB	2	1	1	1	2	
10	MW-552-20080306-01		14:42		JDF	2	1	1	1	2	
	Container Type					V	P	P	P	V	
	Preservative					B	D	A	C	D	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	11:47 3/7/08		3/8 11:46
	3-8-08		3/7/08 1715

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

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

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CHAIN OF CUSTODY

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Date Rec'd in Lab: 3/7/08

ALPHA Job #: L0803236

ALPHA

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. 6th Fl.
Boston, MA 02116
Phone: 617-646-7800
Fax: 617-267-6447
Email: jason.flattery@erm.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon-Wayland
Project Location: Wayland, MA
Project #: 0079337
Project Manager: Jason Flattery
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 3/14/08 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

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

Other Project Specific Requirements/Comments/Detection Limits:

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOCs 8021B by 8260	Total Phosphorus	Sulfate & Nitrate	Diss. Fe (field filtered)	TOC	Sample Specific Comments
03236.11	MW-553-20080306-01	3/6/08	16:41	GW	JDF	2	1	1	1	2	
12	DUP-001-20080306-01	↓	24:00	↓	EB	2	1	1	1	2	
13	DUP-002-20080306-01	↓	24:00	↓	JDF	2					
14	TB-001-20080306-01	2/4/08	19:30	TB	KOSB	1					
Container Type						V	P	P	P	V	
Preservative						B	D	A	C	D	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/7/08 11:47	[signature]	3/7/08 11:47
[signature]	3/7/08 [illegible]	[signature]	3/7/08 1715

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

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

To: Mansfield

CHAIN OF CUSTODY

PAGE 1 OF 2

ALPHA ANALYTICAL

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

Date Rec'd in Lab:

ALPHA Job #: 0803047

Client Information

Client: Alpha Analytical-
Address:
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name:
Project Location:
Project #:
Project Manager: Mary Davis
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 3/14/08 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

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

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: C VOCs 8021 by 8260

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	C VOCs 8021 by 8260	Sample Specific Comments	TOTAL # BOTTLES
1	L0803236-01	3/6/08	1200	GW		X		2
2	-02		0945			X		
3	-03		1345			X		
4	-04		1525			X		
5	-05		1000			X		
6	-06		1120			X		
7	-07		1145			X		
8	-08		1230			X		
9	-09		1630			X		
10	-10		1442			X		

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Paul Gilbert	3/11/08	Paul Gilbert	3/11/08 12:00
Paul Gilbert	3/11/08 18:15	Julie A. DeJesus	3/11/08 18:15

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.

FORM NO: 01-01 (rev. 30-JUL-07)

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To: Mansfield.

CHAIN OF CUSTODY

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

Date Rec'd in Lab:

ALPHA Job #: D803047

Client Information

Client: Alpha Analytical.
Address:
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name:
Project Location:
Project #:
Project Manager: Mary Davis.
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 3/14/08 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MA MCP	Mass GW1 - Method 1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: CVOC's 8021B by 8260

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	CVOC's 8021B by 8260	Sample Specific Comments	TOTAL # BOTTLES
-11	L0803236 - 11	3/6/08	1641	GW		✓		2
-12	↓ -12	↓	2400	↓		✓		↓
-13	-13		2400			✓		

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/11/08	Paul Gilbert	3/11/08 17:00
Paul Gilbert	3/11/08 18:15	[signature]	3/11/08 18:15

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.

FORM NO: 01-01 (rev. 30-JUL-07)

Sample Delivery Group Form

Laboratory Job No: L0803236 **Client:** EQM-MT
Receipt Date/Time: 3/7/08 1715 **SDG Reviewer:** WM

Samples Delivered By:
[✓] Alpha Courier [ ] Client [ ] UPS [ ] FedEx [ ] Other _____
Bill of Laden: [ ] Yes [ ] Unavailable Tracking #: _____

Chain of Custody: [✓] Present [ ] Absent: _____
Custody Seals: [✓] Absent [ ] Present/Intact [ ] Present/Broken

Cooler/Sample Temperature:
Is Ice/Blue Ice present? [✓] Yes [ ] No [ ] N/A _____

Temp taken from: Temp Blank: (a) 2.2 (b)_____ (c)_____ (d)_____ (e)_____
IR Gun: (a)_____ (b)_____ (c)_____ (d)_____ (e)_____
Was Temp: [✓] 2-6 Celsius
[ ] <2 Celsius ... were samples frozen upon receipt? [ ] Yes [ ] No
[ ] >6 Celsius ... were samples delivered direct from site? [ ] Yes [ ] No

Containers Received: [✓] Intact
[ ] Broken/Leaking Sample IDs: _____
Sample IDs: _____

All Containers Accounted For? [✓] Yes
[ ] No: _____
Extra Samples Received? [✓] No
[ ] Yes: _____
Do Sample Labels and COC agree? [✓] Yes
[ ] No: _____
Are Samples in Appropriate Containers? [✓] Yes
[ ] No: _____
Are samples rec'd within holding time? [✓] Yes
[ ] No: _____
* Please note: the analysis of pH will always be performed beyond the regulatory-required holding time of 15 min. from the time of collection.

pH of samples upon receipt: [ ] N/A [✓] <2 [ ] >12 and/or [✓] 7
Are samples properly preserved? [✓] Yes [ ] No If No then.....
Initial pH= _____ preserved In-House with [ ] HCL [ ] H_2SO_4 [ ] HNO_3 <<Final pH = _____>>
Other Issues: _____
Chlorine Check: [✓] N/A [ ] Present [ ] Absent

VOA/VPH vials: [✓] Yes [ ] No
Aqueous: vials contain head space? [✓] No [ ] Yes : _____
Soils: MeOH covering soil? [ ] Yes [ ] No : _____
Reagent H_2O Preserved vials Frozen @ date/time: _____
Frozen by Client? [ ] No [ ] Yes @ date/time: _____

Was Client notified of any discrepancies listed above? [ ] Yes [ ] No [ ] N/A
If Yes: Call Tracker # _____

Sample Receipt Checklist

Client: Alpha Analytical	**Receipt Date:** 3/11/08		
Project: L0803236 - ERM	**Log-in Date:** 3/12/08		
ETR #: 0803047	**Inspection by:** JD	**Login by:** LR	

ALL SECTIONS BELOW MUST BE COMPLETED

Comments / Notes

Were samples shipped? Yes, FedEx / UPS / Other:_____
No, (Alpha Analytical Courier pick-up) / Hand delivered

Is bill of lading retained? Yes, Tracking #:_____
No, Unavailable / (NA)

Number of coolers received for this project delivery: 1

Indicate cooler temperature upon opening (if multiple coolers, record all temps):

Note: If all coolers are 2-6°C, use one checklist, if NOT, use separate checklists and note all samples received *above* 6°C.

Cooler 1:
Temperature(s) taken from: 5° IR Gun, 6° Temp. Blank, / NA

Were samples received on ice? (Yes) / No

Chain-of-Custody present? (Yes) / No
Complete? (Yes) / No

Custody seals present on Cooler? Yes / (No)
on Bottles? Yes / (No)
Intact? Yes / No / (NA)
Note: Affix custody seals to back of this page.

Were sample containers intact? (Yes) / No If No, list samples: →

Did VOA/VPH waters contain headspace (>5mm)? Yes / (No) / NA If Yes, list samples: →

Were 5035 VOA soils, or VPH soils, *covered* with MeOH? Yes / No / (NA)
If No, list samples: →

Was a sufficient amount of sample received for each test indicated on the COC?
(Yes) / No If No, list samples: →

If chemical preservation is appropriate -
Were samples field preserved? (Yes) / No / NA
☒ C=HCl ☐ M=MeOH ☐ S=H_2SO_4
☐ H=NaOH ☐ N=HNO_3 ☐ Other:_____ ☐ U= Unknown

Preservation (pH) verified at lab for *EVERY* bottle? (Not: VOA / VPH / Sulfide)
YES: <2 or >12 (CN) or NO NA
If No, why?:

Were samples received within hold time? (Yes) / No If No, list samples: →

Discrepancy between samples rec'd & COC ? (Yes) / No If Yes, list samples: →

Was the Project Manager notified of any other problems? Yes / No / NA

Project Manager Acknowledgement: Date:

Sample storage refrigerator #: VOA

Sample storage freezer #:_____

Cooler 2:_____ Cooler 3:_____

Cooler 4:_____ Cooler 5:_____

Cooler 6:_____ Cooler 7:_____

More:_____

Chemical preservation OK for ALL samples?
Yes / No / (NA)

If No, list samples below:

rec'd L0803236-14A
Not on COC

Please use back for any additional notes!

Certificate/Approval Program Summary

Method numbers assume the most recent EPA revisions. For a complete listing of analytes for the referenced methods please contact your Alpha Woods Hole Lab Project Manager or the Quality Assurance Manager.

Connecticut Department of Public Health Certificate/Lab ID : PH-0141 - *Wastewater* (General Chemistry: EPA 120.1, 150.1, 160.1, 160.2, 180.1, 300.0, 310.1, 335.2; Metals: 200.8, 245.1; Organics: 608-PCB, ETPH) *Solid Waste/Soil* (General Chemistry: 1010, 9010/9014, 9045, 9060; Metals: 6020, 7470, 7471; Organics: 8081, 8082, 8260, 8270, ETPH).

Florida Department of Health Certificate/Lab ID : E87814 - Primary NELAP Accreditation Authority for Air & Emissions. Secondary NELAP Accreditation for Wastwater and Solid & Hazardous Waste. *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 335.2, SM2320B, SM2340B, SM2540G, SM4500NH3; Metals: 245.1; Organics: 608-PCB). *Solid and Hazardous Waste* (General Chemistry: 9010/9014, 9045, 9050, 9056, 9065, Reactivity 7.3; Metals: 6020, 7470, 7471; Organics: 8081, 8082, 8260, 8270). *Air & Emissions* (Organics: EPA TO-15).

Louisiana Department of Environmental Quality Certificate/Lab ID : 03090 - Primary NELAP Accrediting Authority for Wastewater, Solid & Hazardous Waste. *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 376.2, 9010/9014, 9056, SM2540G; Metals: 200.8, 245.1, 6020; Organics: 608-PCB, 8015-DRO, 8081, 8082, 8260, 8270). *Solid and Hazardous Waste* (General Chemistry: 1010, 1311, 9010/9014, 9040, 9045, 9056, 9060, Reactivity 7.3; Metals: 6020, 7196, 7470, 7471; Organics: 8015-DRO, 8081, 8082, 8260, 8270).

Maine Department of Human Services Certificate/Lab ID : MA0030 - *Wastewater* (General Chemistry: EPA 120.1/ SM2510B, 160.1/SM2540C, 160.2/SM2540D, 300.0, 310.1/SM2320B, 335.2; Metals: EPA 245.1; Organics: 608-PCB).

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030 - *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 300.0, 310.1/SM2320B, 335.2; Metals: EPA 245.1; Organics: EPA 608-PCB).

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206 - Secondary NELAP Accreditation. *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 376.2, SM2540G; Metals: 200.8, 245.4; Organics: 608-PCB).

New Jersey Department of Environmental Protection Certificate/Lab ID : MA015 - Secondary NELAP Accreditation. *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 376.2, 9010/9014, 9056, SM2540G; Metals: 200.8, 245.1 6020; Organics: 608-PCB, 8081, 8082, 8260, 8270). *Solid & Hazardous Waste* (General Chemistry: EPA 1010, 1311, 9010/9014, 9040, 9045, 9056, 9060; Metals: 6020, 7196, 7470, 7471; Organics: 8015-DRO, 8081, 8082, 8260, 8270). *Air & Emissions* (Organics: EPA TO-15).

New York Department of Health Certificate/Lab ID : 11627 - Secondary NELAP Accreditation. *Wastewater* (General Chemistry: EPA 120.1/SM2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 300.0, 310.1/SM2320B, 376.2; Metals: 200.8, 245.1; Organics: 608-PCB). *Solid and Hazardous Waste* (General Chemistry: EPA 1010, 1311; : 200.8; 6020;7041; Organics: 8081, 8082, 8260, 8270). *Air & Emissions* (Organics: EPA TO-15).

Rhode Island Department of Health Certificate/Lab ID : LAO00289 - Chemistry: *Organic and Inorganic in Non-Poratable Water, Wastewater/Sewage and Soil* (Refer to LADEQ and MADEP certificates for method numbers.)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-02089 - Registered laboratory

U.S. Army Corps of Engineers

Department of the Navy

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-261S-20080306-01	Water	P0803069-02	06 Mar. 08 12:00	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	0.100	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	0.270	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-265M-20080306-01	Water	P0803069-04	06 Mar. 08 9:45	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	1.800	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	4.700	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-266MA-20080306-01	Water	P0803069-05	06 Mar. 08 13:45	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	0.034	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	19.000	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-266MB-20080306-01	Water	P0803069-06	06 Mar. 08 15:25	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	0.370	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	4.500	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-267S-20080306-01	Water	P0803069-07	06 Mar. 08 10:00	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	0.680	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	440.000	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-267M-20080306-01	Water	P0803069-08	06 Mar. 08 11:20	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	0.028	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	0.490	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	59.000	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-268M-20080306-01	Water	P0803069-09	06 Mar. 08 11:45	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	1.800	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	37.000	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-268D-20080306-01	Water	P0803069-10	06 Mar. 08 12:30	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Ethene	<0.025	0.025	ug/L	AM20GAX	3/17/08	rw
N Methane	23.000	0.100	ug/L	AM20GAX	3/17/08	rw

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-551-20080306-01	Water	P0803069-11	06 Mar. 08 16:30	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	mm
N Ethene	<0.025	0.025	ug/L	AM20GAX	3/17/08	mm
N Methane	1.600	0.100	ug/L	AM20GAX	3/17/08	mm

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW552-20080306-01	Water	P0803069-12	06 Mar. 08 14:42	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	mm
N Ethene	0.300	0.025	ug/L	AM20GAX	3/17/08	mm
N Methane	27.000	0.100	ug/L	AM20GAX	3/17/08	mm

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
MW-553-20080306-01	Water	P0803069-13	06 Mar. 08 16:41	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	mm
N Ethene	0.170	0.025	ug/L	AM20GAX	3/17/08	mm
N Methane	0.940	0.100	ug/L	AM20GAX	3/17/08	mm

N - NELAC certified analysis

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

Lab Proj #: P0803069
Report Date: 03/18/08
Client Proj Name: Wayland
Client Proj #: Wayland

Sample Description	Matrix	Lab Sample #	Sampled Date/Time	Received
DUP-001-20080306-01	Water	P0803069-14	06 Mar. 08 0:00	07 Mar. 08 10:23

Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N Ethane	<0.025	0.025	ug/L	AM20GAX	3/17/08	mm
N Ethene	1.600	0.025	ug/L	AM20GAX	3/17/08	mm
N Methane	32.000	0.100	ug/L	AM20GAX	3/17/08	mm

N - NELAC certified analysis

www.siremlab.com
130 Research Lane, Suite 2
Guelph, Ontario N1G 5G3
Phone (519) 822-2265
Fax (519) 822-3151

Certificate of Analysis: Quantitative Gene-Trac *Dehalococcoides* Assay

Customer: Jason Flattery, ERM
Project: Raytheon Wayland
Customer Reference: 0079387

SiREM Reference: S-1251
Report Issued: 25-Mar-08
Data Files: DHC-UP-0437/0437
QPCR-0325/QPCR check-gel-0232

Table 1: Test Results

Customer Sample ID	SiREM Sample ID	Sample Collection Date	Sample Matrix	Percent Dhc [A]	*Dehalococcoides* Enumeration [B]
MW-261S-20080306-01	DHC-3788	6-Mar-08	Groundwater	NA(1)	ND(2)
MW-265M-20080306-01	DHC-3790	6-Mar-08	Groundwater	NA(1)	ND(2)
MW-266Ma-20080306-01	DHC-3791	6-Mar-08	Groundwater	0.0003-0.001%	3×10^3/liter(3)
MW-266Mb-20080306-01	DHC-3792	6-Mar-08	Groundwater	NA(1)	ND(2)
MW-267S-20080306-01	DHC-3793	6-Mar-08	Groundwater	NA(1)	ND(2,4)
MW-267M-20080306-01	DHC-3794	6-Mar-08	Groundwater	NA(1)	ND(2,4)
MW-268M-20080306-01	DHC-3795	6-Mar-08	Groundwater	NA(1)	ND(2,4)
MW-268D-20080306-01	DHC-3796	6-Mar-08	Groundwater	0.01-0.04%	6×10^4/liter
MW-551-20080306-01	DHC-3797	6-Mar-08	Groundwater	NA(1)	ND(2)
MW-552-20080306-01	DHC-3798	6-Mar-08	Groundwater	NA(1)	ND(2,4)
MW-553-20080306-01	DHC-3799	6-Mar-08	Groundwater	NA(1)	ND(2)
DUP-001-20080306-01	DHC-3800	6-Mar-08	Groundwater	NA(1)	ND(2,4)

www.siremlab.com
130 Research Lane, Suite 2
Guelph, Ontario N1G 5G3
Phone (519) 822-2265
Fax (519) 822-3151

Certificate of Analysis: Quantitative Gene-Trac *Dehalococcoides* Assay

Notes:

[A] Percent Dehalococcoides (Dhc) in microbial population. This value is calculated by dividing the number of Dhc 16S ribosomal ribonucleic acid (rRNA) gene copies by the total number of bacteria as estimated by the mass of DNA extracted from the sample.

[B]Based on quantification of Dhc 16S rRNA gene copies. Dhc are generally reported to contain one 16S rRNA gene copy per cell; therefore, this number is often interpreted to represent the number of Dhc cells present in the sample.

NA = not applicable
ND= not detected

[1]Not applicable as *Dehalococcoides* not detected.
[2]Not detected. The quantitation limit is 4×10^3/liter.
[3]*Dehalococcoides* DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.
[4]Sample inhibited testing; this increases the probability that test result is a false negative.

Analyst: J. Wilkinson
Jennifer Wilkinson
Biotechnology Technologist

Approved: Ximena Druar
Ximena Druar, B.Sc.
Molecular Biology Coordinator

www.siremlab.com
130 Research Lane, Suite 2
Guelph, Ontario N1G 5G3
Phone (519) 822-2265
Fax (519) 822-3151

Certificate of Analysis: Gene-Trac-VC, Vinyl Chloride Reductase Assay (*vcrA*) Assay

Customer: Jason Flattery, ERM
SiREM Reference: S-1251
Project: Raytheon Wayland
Report Issued: 25-Mar-08
Customer Reference: 0079387
Data Files: VC-QPCR-0119

Table 1: Test Results

Customer Sample ID	SiREM Sample ID	Sample Collection Date	Sample Matrix	Percent *vcrA* [A]	Vinyl Chloride Reductase (*vcrA*) Gene Copies
MW-266Ma-20080306-01	VCR-0781	6-Mar-08	Groundwater	NA(1)	ND(2)
MW-268D-20080306-01	VCR-0782	6-Mar-08	Groundwater	NA(1)	ND(2)

Notes:

[A] Percent *vcrA* in microbial population. This value is calculated by dividing the number of vinyl chloride reductase A (*vcrA)* gene copies quantified by the total number of bacteria estimated to be in the sample based on the mass of DNA extracted from the sample. Range represents normal variation in enumeration of *vcrA* .

NA = not applicable
ND= not detected

[1]Not applicable as *vcrA* not detected.
[2]Not detected. The sample specific quantitation limit is 4 x 10^3/liter.

Analyst: J. Wilkinson
Jennifer Wilkinson
Biotechnology Technologist

Approved: Ximena Druar
Ximena Druar, B.Sc.
Molecular Biology Coordinator

Table 2.1: Detailed Test Parameters, Gene-Trac Test Reference S-1251

Customer Sample ID	MW-261S-20080306-01	MW-265M-20080306-01	MW-266Ma-20080306-01	MW-266Mb-20080306-01
SiREM Test ID	DHC-3788	DHC-3790	DHC-3791/VCR-0781	DHC-3792
Date Received	7-Mar-08	7-Mar-08	7-Mar-08	7-Mar-08
Sample Temperature	8.5 ˚C	8.5 ˚C	8.5 ˚C	8.5 ˚C
Volume Used for DNA Extraction	500 mL	500 mL	500 mL	500 mL
DNA Extraction Date	18-Mar-08	18-Mar-08	18-Mar-08	18-Mar-08
DNA Concentration in Sample (extractable)	2665 ng/L	1324 ng/L	2505 ng/L	2612 ng/L
Extracted DNA Quality Test (universal PCR primers)	ND	ND	ND	ND
Secondary DNA Purification	R	R	R	R
DNA Repurification Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
Extracted DNA Quality Test (after repurification)	Passed	Passed	Passed	Passed
Dhc qPCR Analysis Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
vcrA qPCR Analysis Date	NA	NA	25-Mar-08	NA
qPCR Controls (see Table 3)	Passed	Passed	Passed	Passed
Comments	- -	- -	- -	- -

Notes:

Refer to Table 3 & 4 for detailed results of control
NR = not required
ND = not detected
°C = degrees Celsius
PCR = polymerase chain reaction
qPCR = quantitative PCR
Dhc = *Dehalococcoides*
ng/L = nanograms per liter
mL = milliliters
DNA = Deoxyribonucleic acid

Table 2.2: Detailed Test Parameters, Gene-Trac Test Reference S-1251

Customer Sample ID	MW-267S-20080306-01	MW-267M-20080306-01	MW-268M-20080306-01	MW-268D-20080306-01
SiREM Test ID	DHC-3793	DHC-3794	DHC-3795	DHC-3796/VCR-0782
Date Received	7-Mar-08	7-Mar-08	7-Mar-08	7-Mar-08
Sample Temperature	8.5 ˚C	8.5 ˚C	8.5 ˚C	8.5 ˚C
Volume Used for DNA Extraction	500 mL	500 mL	500 mL	500 mL
DNA Extraction Date	18-Mar-08	18-Mar-08	18-Mar-08	18-Mar-08
DNA Concentration in Sample (extractable)	1547 ng/L	1497 ng/L	1582 ng/L	863 ng/L
Extracted DNA Quality Test (universal PCR primers)	ND	ND	ND	ND
Secondary DNA Purification	R	R	R	R
DNA Repurification Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
Extracted DNA Quality Test (after repurification)	ND	ND	ND	Passed
Dhc qPCR Analysis Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
vcrA qPCR Analysis Date	NA	NA	NA	25-Mar-08
qPCR Controls (see Table 3)	Passed	Passed	Passed	Passed
Comments	- -	- -		- -

Notes:

Refer to Table 3 & 4 for detailed results of control
NR = not required
ND = not detected
°C = degrees Celsius
PCR = polymerase chain reaction
qPCR = quantitative PCR
Dhc = *Dehalococcoides*
ng/L = nanograms per liter
mL = milliliters
DNA = Deoxyribonucleic acid

Table 2.3: Detailed Test Parameters, Gene-Trac Test Reference S-1251

Customer Sample ID	MW-551-20080306-01	MW-552-20080306-01	MW-553-20080306-01	DUP-001-20080306-01
SiREM Test ID	DHC-3797	DHC-3798	DHC-3799	DHC-3800
Date Received	7-Mar-08	7-Mar-08	7-Mar-08	7-Mar-08
Sample Temperature	8.5 ˚C	8.5 ˚C	8.5 ˚C	8.5 ˚C
Volume Used for DNA Extraction	500 mL	500 mL	500 mL	500 mL
DNA Extraction Date	18-Mar-08	18-Mar-08	18-Mar-08	18-Mar-08
DNA Concentration in Sample (extractable)	911 ng/L	1147 ng/L	953 ng/L	936 ng/L
Extracted DNA Quality Test (universal PCR primers)	ND	ND	ND	ND
Secondary DNA Purification	R	R	R	R
DNA Repurification Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
Extracted DNA Quality Test (after repurification)	Passed	ND	Passed	ND
Dhc qPCR Analysis Date	24-Mar-08	24-Mar-08	24-Mar-08	24-Mar-08
vcrA qPCR Analysis Date	NA	NA	NA	NA
qPCR Controls (see Table 3)	Passed	Passed	Passed	Passed
Comments	- -	- -		- -

Notes:

Refer to Table 3 & 4 for detailed results of control
NR = not required
ND = not detected
°C = degrees Celsius
PCR = polymerase chain reaction
qPCR = quantitative PCR
Dhc = *Dehalococcoides*
ng/L = nanograms per liter
mL = milliliters
DNA = Deoxyribonucleic acid

Table 3: Gene-Trac-DHC Experimental Control Results, Gene-Trac Test Reference S-1251

Laboratory Control	Analysis Date	Control Description	Spiked Dhc 16S rRNA Gene Copies per Reaction	Recovered Dhc 16S rRNA Gene Copies per Reaction	Comments
Positive Control Low Concentration	24-Mar-08	qPCR with cloned Dhc gene (9.13×10^5 copies)	9.13×10^5	1.33×10^6	Normal[1]
Positive Control High Concentration	24-Mar-08	qPCR with cloned Dhc gene (9.13×10^7 copies)	9.13×10^7	9.05×10^7	Normal[1]
DNA Extraction Blank	24-Mar-08	DNA extraction sterile water (DB-0737)	0	ND	Normal
Negative Control	24-Mar-08	Tris Reagent Blank	0	ND	Normal

Notes:

[1] Within defined limits of +/- 50%

Dhc = *Dehalococcoides*

DNA = Deoxyribonucleic acid

NA = not applicable

ND = not detected

qPCR = quantitative PCR

16S rRNA = 16S ribosomal ribonucleic acid

Table 4: Gene-Trac-VC Experimental Control Results, Gene-Trac Test Reference S-1251

Laboratory Control	Analysis Date	Control Description	Spiked *vcrA* reductase Gene Copies per Reaction	Recovered *vcrA* reductase Gene Copies per Reaction	Comments
Positive Control Low Concentration	25-Mar-08	qPCR with cloned vinyl chloride dehalogenase gene (1.41×10^5 copies)	1.41×10^5	1.36×10^5	Normal[1]
Positive Control High Concentration	25-Mar-08	qPCR with cloned vinyl chloride dehalogenase gene (1.41×10^7 copies)	1.41×10^7	1.34×10^7	Normal[1]
DNA Extraction Blank	25-Mar-08	DNA extraction sterile water (DB-0737)	0	ND	Normal
Negative Control	25-Mar-08	Tris Reagent Blank	0	ND	Normal

Notes:

NA = not applicable

ND = not detected

[1] Within defined limits of +/- 50%

qPCR = quantitative PCR

Dhc = *Dehalococcoides*

DNA = Deoxyribonucleic acid

16S rRNA = 16S ribosomal ribonucleic acid

vcrA = vinyl chloride reductase

Chain-of-Custody Form

SiREM Site Recovery & Management
130 Research Lane, Suite 2 · Guelph, Ontario, Canada N1G 5G3 · Phone (519) 822-2265 or toll free 1-866-251-1747 Fax (519) 822-3151
www.siremlab.com

Lab # S-1251

Project Name: Lutheran Wayland	Project #: 0079387
Project Manager: Jason Flattery	
Email Address: jason.flattery@erm.com	
Company: ERM	
Address: 399 Boylston St. Boston, MA 02166	
Phone #: 617-646-7800	Fax #: 617-267-6447
Sampler's Signature: [signature]	Sampler's Printed Name: Ezra Benjamin

Analysis

Preservative: None

Client Sample ID	Lab ID	Sampling Date	Sampling Time	Matrix	# of Containers	Gene-Trac VC	Gene-Trac DHE										Other Information
MW-261S-20080306-01		3/6/08	1200	GW	1	X	X										
MW-264M-20080306-01		↓	1445	↓	↓	X	X										
MW-265M-20080306-01		↓	0945	↓	↓	X	X										
MW-266Ma-20080306-01		↓	1345	↓	↓	X	X										
MW-266Mb-20080306-01		↓	1525	↓	↓	X	X										
MW-267S-20080306-01		↓	1000	↓	↓	X	X										
MW-267M-20080306-01		↓	1120	↓	↓	X	X										
MW-268M-20080306-01		↓	1145	↓	↓	X	X										
MW-267D-20080306-01		↓	1230	↓	↓	X	X										
MW-551-20080306-01		↓	1630	↓	↓	X	X										

Preservative Key
0. None
1. HCL
2. Other ______
3. Other ______
4. Other ______
5. Other ______
6. Other ______

Sample Receipt
Cooler Condition: Good
Cooler Temperature:
Custody Seals: Yes ☐ No ☒

Invoice Information
P.O. # 0079387
Bill To: Jason Flattery
Quotation #

For Lab Use Only

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature: J. Wilkinson	Signature	Signature	Signature	Signature
Printed Name	Printed Name: J. Wilkinson	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm: SiREM	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 3/7/08 12:30	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator: Yellow - Lab Copy: Pink - Retained by Client

CHAIN OF CUSTODY

PAGE 2 OF 2

ALPHA
ANALYTICAL LABORATORIES

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: S-12571

Client Information

Client: ERM
Address: 399 Boylston St.
Boston MA 02116
Phone: 617-646-7800
Fax: 617-267-6447
Email: Jason.Clafferty@erm.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon Wayland
Project Location: Wayland MA
Project #: 0079387
Project Manager: S. Flaherty
ALPHA Quote #:

Turn-Around Time

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

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program: MA
Criteria: GW-1

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

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

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: Geo Trac VOC; Geo Trac DHL

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Sample Specific Comments	TOTAL # BOTTLES
	MW-552-20080306-01	3/6/08	1442				1
	MW-553-20080306-01		1641				1
	DUP-001-20080306-01		2400				1

Container Type	P	P
Preservative	A	A

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
		[illegible]	3/7/08 12:30

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.

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