

Environmental
Resources
Management

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

9 June 2009
Reference: 0095922

Elizabeth Herland
U.S. Fish and Wildlife Services
73 Weir Hill Road
Sudbury, MA 01776



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

Dear Ms. Herland:

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). These results are submitted pursuant to 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP).

ERM collected groundwater samples from two wells on portions of the Site within the boundaries of your property on 14 April 2009. The samples were submitted for laboratory analysis of volatile organic compounds. Sample analysis was conducted by Alpha Analytical, Inc. of Westborough, Massachusetts. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required MCP submittal.

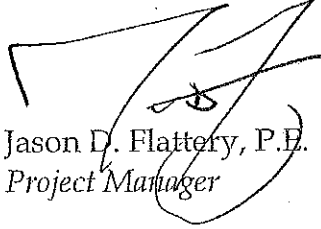
Ms. Herland
Reference: 0095922
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If you have any questions or comments, please contact the undersigned
at (617) 646-7800 or Louis Burkhardt, Raytheon Company, at (978) 436-
8238.

Sincerely,



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



Jason D. Flattery, P.E.
Project Manager

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: U.S. Fish and Wildlife Services
2. Street Address: 73 Weir Hill Road
City/Town: Sudbury Zip Code: 01776

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

- 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.
- 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.
- 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

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

1. Street Address: 430 Boston Post Road
City/Town: Wayland Zip Code: 01778

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

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

3. Description of property where sampling will be/has been conducted:
 residential commercial industrial school/playground Other _____
(specify)

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

Collection of groundwater samples from existing monitoring wells.

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

Contact Name: Louis J. Burkhardt
Street Address: 880 Technology Park Drive, T-3033
City/Town: Billerica Zip Code: 01821
Telephone: (978) 436-8238 Email: louis_j_burkhardt@raytheon.com

NOTICE OF ENVIRONMENTAL SAMPLING

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

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the “disposal site”.)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation under the Massachusetts Contingency Plan at a property on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at <http://www.mass.gov/dep/cleanup/oview.htm>. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See <http://mass.gov/dep/about/region/schedule.htm> if you would like to make an appointment to see these files. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.



ANALYTICAL REPORT

Lab Number:	L0904593
Client:	ERM Consulting & Engineering, Inc. 399 Boylston Street 6th Floor Boston, MA 02116
ATTN:	Jason Flattery
Project Name:	RAYTHEON WAYLAND
Project Number:	0095922
Report Date:	04/20/09

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

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



Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0904593-01	MW-554D-20090414-01	WAYLAND, MA	04/14/09 11:00
L0904593-02	MW-555D-20090414-01	WAYLAND, MA	04/14/09 13:50

Project Name: RAYTHEON WAYLAND

Lab Number: L0904593

Project Number: 0095922

Report Date: 04/20/09

MADEP MCP Response Action Analytical Report Certification

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

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

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



Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Case Narrative

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

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

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

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

MCP Related Narratives

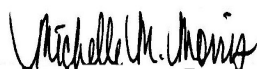
Volatile Organics

In reference to question F:

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

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

Authorized Signature:



Title: Technical Director/Representative

Date: 04/20/09

ORGANICS

VOLATILES

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**SAMPLE RESULTS**

Lab ID: L0904593-01
Client ID: MW-554D-20090414-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 60,8260B
Analytical Date: 04/16/09 23:45
Analyst: GK

Date Collected: 04/14/09 11:00
Date Received: 04/14/09
Field Prep: Not Specified

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

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**SAMPLE RESULTS**

Lab ID: L0904593-01

Date Collected: 04/14/09 11:00

Client ID: MW-554D-20090414-01

Date Received: 04/14/09

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics - Westborough Lab					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	119		70-130

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**SAMPLE RESULTS**

Lab ID: L0904593-02
Client ID: MW-555D-20090414-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 60,8260B
Analytical Date: 04/17/09 00:17
Analyst: GK

Date Collected: 04/14/09 13:50
Date Received: 04/14/09
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics - Westborough Lab					
Methylene chloride	ND		ug/l	5.0	1
1,1-Dichloroethane	1.1		ug/l	0.75	1
Chloroform	ND		ug/l	0.75	1
Carbon tetrachloride	ND		ug/l	0.50	1
1,2-Dichloropropane	ND		ug/l	1.8	1
Dibromochloromethane	ND		ug/l	0.50	1
1,1,2-Trichloroethane	ND		ug/l	0.75	1
Tetrachloroethene	ND		ug/l	0.50	1
Chlorobenzene	ND		ug/l	0.50	1
1,2-Dichloroethane	ND		ug/l	0.50	1
1,1,1-Trichloroethane	ND		ug/l	0.50	1
Bromodichloromethane	ND		ug/l	0.50	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	1
Bromoform	ND		ug/l	2.0	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	1
Chloromethane	ND		ug/l	2.5	1
Vinyl chloride	ND		ug/l	1.0	1
Chloroethane	ND		ug/l	1.0	1
1,1-Dichloroethene	ND		ug/l	0.50	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	1
Trichloroethene	ND		ug/l	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.5	1
1,3-Dichlorobenzene	ND		ug/l	2.5	1
1,4-Dichlorobenzene	ND		ug/l	2.5	1
cis-1,2-Dichloroethene	3.8		ug/l	0.50	1
Dichlorodifluoromethane	ND		ug/l	5.0	1
1,2-Dibromoethane	ND		ug/l	2.0	1
1,3-Dichloropropane	ND		ug/l	2.5	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**SAMPLE RESULTS**

Lab ID: L0904593-02

Date Collected: 04/14/09 13:50

Client ID: MW-555D-20090414-01

Date Received: 04/14/09

Sample Location: WAYLAND, MA

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
MCP Volatile Organics - Westborough Lab					
o-Chlorotoluene	ND		ug/l	2.5	1
p-Chlorotoluene	ND		ug/l	2.5	1
Hexachlorobutadiene	ND		ug/l	0.60	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	119		70-130

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 60,8260B
Analytical Date: 04/16/09 16:13
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG359259-3				
Methylene chloride	ND		ug/l	5.0
1,1-Dichloroethane	ND		ug/l	0.75
Chloroform	ND		ug/l	0.75
Carbon tetrachloride	ND		ug/l	0.50
1,2-Dichloropropane	ND		ug/l	1.8
Dibromochloromethane	ND		ug/l	0.50
1,1,2-Trichloroethane	ND		ug/l	0.75
Tetrachloroethene	ND		ug/l	0.50
Chlorobenzene	ND		ug/l	0.50
Trichlorofluoromethane	ND		ug/l	2.5
1,2-Dichloroethane	ND		ug/l	0.50
1,1,1-Trichloroethane	ND		ug/l	0.50
Bromodichloromethane	ND		ug/l	0.50
trans-1,3-Dichloropropene	ND		ug/l	0.50
cis-1,3-Dichloropropene	ND		ug/l	0.50
1,1-Dichloropropene	ND		ug/l	2.5
Bromoform	ND		ug/l	2.0
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50
Benzene	ND		ug/l	0.50
Toluene	ND		ug/l	0.75
Ethylbenzene	ND		ug/l	0.50
Chloromethane	ND		ug/l	2.5
Bromomethane	ND		ug/l	1.0
Vinyl chloride	ND		ug/l	1.0
Chloroethane	ND		ug/l	1.0
1,1-Dichloroethene	ND		ug/l	0.50
trans-1,2-Dichloroethene	ND		ug/l	0.75
Trichloroethene	ND		ug/l	0.50
1,2-Dichlorobenzene	ND		ug/l	2.5
1,3-Dichlorobenzene	ND		ug/l	2.5
1,4-Dichlorobenzene	ND		ug/l	2.5

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 60,8260B
Analytical Date: 04/16/09 16:13
Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG359259-3				
Methyl tert butyl ether	ND		ug/l	1.0
p/m-Xylene	ND		ug/l	1.0
o-Xylene	ND		ug/l	1.0
cis-1,2-Dichloroethene	ND		ug/l	0.50
Dibromomethane	ND		ug/l	5.0
1,2,3-Trichloropropane	ND		ug/l	5.0
Styrene	ND		ug/l	1.0
Dichlorodifluoromethane	ND		ug/l	5.0
Acetone	ND		ug/l	5.0
Carbon disulfide	ND		ug/l	5.0
2-Butanone	ND		ug/l	5.0
4-Methyl-2-pentanone	ND		ug/l	5.0
2-Hexanone	ND		ug/l	5.0
Bromochloromethane	ND		ug/l	2.5
Tetrahydrofuran	ND		ug/l	10
2,2-Dichloropropane	ND		ug/l	2.5
1,2-Dibromoethane	ND		ug/l	2.0
1,3-Dichloropropane	ND		ug/l	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50
Bromobenzene	ND		ug/l	2.5
n-Butylbenzene	ND		ug/l	0.50
sec-Butylbenzene	ND		ug/l	0.50
tert-Butylbenzene	ND		ug/l	2.5
o-Chlorotoluene	ND		ug/l	2.5
p-Chlorotoluene	ND		ug/l	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5
Hexachlorobutadiene	ND		ug/l	0.60
Isopropylbenzene	ND		ug/l	0.50
p-Isopropyltoluene	ND		ug/l	0.50
Naphthalene	ND		ug/l	2.5
n-Propylbenzene	ND		ug/l	0.50

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 60,8260B
 Analytical Date: 04/16/09 16:13
 Analyst: GK

Parameter	Result	Qualifier	Units	RDL
MCP Volatile Organics - Westborough Lab for sample(s): 01-02 Batch: WG359259-3				
1,2,3-Trichlorobenzene	ND		ug/l	2.5
1,2,4-Trichlorobenzene	ND		ug/l	2.5
1,3,5-Trimethylbenzene	ND		ug/l	2.5
1,2,4-Trimethylbenzene	ND		ug/l	2.5
Ethyl ether	ND		ug/l	2.5
Isopropyl Ether	ND		ug/l	2.0
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0
1,4-Dioxane	ND		ug/l	250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	117		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L0904593

Project Number: 0095922

Report Date: 04/20/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG359259-1 WG359259-2					
Methylene chloride	104	108	70-130	4	25
1,1-Dichloroethane	106	110	70-130	4	25
Chloroform	108	110	70-130	2	25
Carbon tetrachloride	102	107	70-130	5	25
1,2-Dichloropropane	102	102	70-130	0	25
Dibromochloromethane	104	101	70-130	3	25
1,1,2-Trichloroethane	100	97	70-130	3	25
Tetrachloroethene	119	120	70-130	1	25
Chlorobenzene	100	104	70-130	4	25
Trichlorofluoromethane	133	140	70-130	5	25
1,2-Dichloroethane	113	114	70-130	1	25
1,1,1-Trichloroethane	108	111	70-130	3	25
Bromodichloromethane	109	112	70-130	3	25
trans-1,3-Dichloropropene	91	91	70-130	0	25
cis-1,3-Dichloropropene	87	89	70-130	2	25
1,1-Dichloropropene	105	108	70-130	3	25
Bromoform	120	120	70-130	0	50
1,1,2,2-Tetrachloroethane	89	88	70-130	1	25
Benzene	100	103	70-130	3	25
Toluene	95	101	70-130	6	25
Ethylbenzene	103	106	70-130	3	25

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L0904593

Project Number: 0095922

Report Date: 04/20/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG359259-1 WG359259-2					
Chloromethane	87	86	70-130	1	50
Bromomethane	103	104	70-130	1	50
Vinyl chloride	92	94	70-130	2	25
Chloroethane	103	107	70-130	4	25
1,1-Dichloroethene	110	110	70-130	0	25
trans-1,2-Dichloroethene	112	126	70-130	12	25
Trichloroethene	108	109	70-130	1	25
1,2-Dichlorobenzene	97	99	70-130	2	25
1,3-Dichlorobenzene	98	101	70-130	3	25
1,4-Dichlorobenzene	98	101	70-130	3	25
Methyl tert butyl ether	102	104	70-130	2	25
p/m-Xylene	101	105	70-130	4	25
o-Xylene	104	105	70-130	1	25
cis-1,2-Dichloroethene	108	108	70-130	0	25
Dibromomethane	107	108	70-130	1	25
1,2,3-Trichloropropane	95	98	70-130	3	25
Styrene	102	104	70-130	2	25
Dichlorodifluoromethane	88	95	70-130	8	50
Acetone	133	128	70-130	4	50
Carbon disulfide	78	79	70-130	1	50
2-Butanone	92	90	70-130	2	50

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG359259-1 WG359259-2					
4-Methyl-2-pentanone	87	84	70-130	4	50
2-Hexanone	80	82	70-130	2	50
Bromochloromethane	111	114	70-130	3	25
Tetrahydrofuran	101	99	70-130	2	25
2,2-Dichloropropane	90	95	70-130	5	50
1,2-Dibromoethane	101	103	70-130	2	25
1,3-Dichloropropane	99	101	70-130	2	25
1,1,1,2-Tetrachloroethane	100	100	70-130	0	25
Bromobenzene	100	104	70-130	4	25
n-Butylbenzene	95	100	70-130	5	25
sec-Butylbenzene	92	97	70-130	5	25
tert-Butylbenzene	91	94	70-130	3	25
o-Chlorotoluene	90	93	70-130	3	25
p-Chlorotoluene	94	97	70-130	3	25
1,2-Dibromo-3-chloropropane	87	90	70-130	3	50
Hexachlorobutadiene	114	124	70-130	8	25
Isopropylbenzene	99	104	70-130	5	25
p-Isopropyltoluene	95	100	70-130	5	25
Naphthalene	92	93	70-130	1	25
n-Propylbenzene	90	95	70-130	5	25
1,2,3-Trichlorobenzene	114	115	70-130	1	25

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L0904593

Project Number: 0095922

Report Date: 04/20/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 01-02 Batch: WG359259-1 WG359259-2					
1,2,4-Trichlorobenzene	107	110	70-130	3	25
1,3,5-Trimethylbenzene	92	96	70-130	4	25
1,2,4-Trimethylbenzene	93	96	70-130	3	25
Ethyl ether	113	114	70-130	1	25
Isopropyl Ether	91	94	70-130	3	25
Ethyl-Tert-Butyl-Ether	94	97	70-130	3	25
Tertiary-Amyl Methyl Ether	91	90	70-130	1	25
1,4-Dioxane	114	113	70-130	1	50

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		110		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	91		94		70-130
Dibromofluoromethane	115		114		70-130

SEMIVOLATILES

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**SAMPLE RESULTS**

Lab ID: L0904593-02
Client ID: MW-555D-20090414-01
Sample Location: WAYLAND, MA
Matrix: Water
Analytical Method: 1,8270C-SIM
Analytical Date: 04/17/09 13:31
Analyst: JS

Date Collected: 04/14/09 13:50
Date Received: 04/14/09
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 04/15/09 15:11

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
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1,4 Dioxane by 8270C-SIM - Mansfield Lab					
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1,4-Dioxane	2160		ng/l	532	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	42		15-110

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 04/17/09 09:54
Analyst: JS

Extraction Method: EPA 3510C
Extraction Date: 04/15/09 15:11

Parameter	Result	Qualifier	Units	RDL
1,4 Dioxane by 8270C-SIM - Mansfield Lab for sample(s): 02 Batch: WG358969-1				
1,4-Dioxane	ND		ng/l	500

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	39		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: RAYTHEON WAYLAND

Lab Number: L0904593

Project Number: 0095922

Report Date: 04/20/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
1,4 Dioxane by 8270C-SIM - Mansfield Lab Associated sample(s): 02 Batch: WG358969-2 WG358969-3					
1,4-Dioxane	94	98	40-140	4	30

Surrogate	LCS %Recovery	Qualifier	LCSD %Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	36		34		15-110

Project Name: RAYTHEON WAYLAND**Lab Number:** L0904593**Project Number:** 0095922**Report Date:** 04/20/09**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0904593-01A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-04(14)
L0904593-01B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-04(14)
L0904593-02A	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-04(14)
L0904593-02B	Vial HCl preserved	A	N/A	2	Y	Absent	MCP-8260-04(14)
L0904593-02C	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L0904593-02D	Amber 1000ml unpreserved	A	7	2	Y	Absent	A2-1,4-DIOXANE-SIM(7)

*Hold days indicated by values in parentheses

Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

GLOSSARY

Acronyms

- EPA** - Environmental Protection Agency.
- LCS** - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD** - Laboratory Control Sample Duplicate: Refer to LCS.
- MS** - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD** - Matrix Spike Sample Duplicate: Refer to MS.
- NA** - Not Applicable.
- NC** - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- ND** - Not detected at the reported detection limit for the sample.
- NI** - Not Ignitable.
- RDL** - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD** - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

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

Data Qualifiers

- *** - The batch duplicate RPD exceeds the acceptance criteria. This flag is not applicable when the sample concentrations are less than 5x the RDL. (Metals only.)
- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- N** - The matrix spike recovery exceeds the acceptance criteria. This flag is not applicable when the sample concentration is greater than 4x the spike added. (Metals only.)
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Report Format: Data Usability Report



Project Name: RAYTHEON WAYLAND
Project Number: 0095922

Lab Number: L0904593
Report Date: 04/20/09

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 60 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

LIMITATION OF LIABILITIES

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

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



Certificate/Approval Program Summary

Last revised February 18, 2009 - Westboro Facility

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

Connecticut Department of Public Health Certificate/Lab ID: PH-0574.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: MA0086.

Drinking Water (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

Non-Potable Water

Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Ti,V,Zn,Ca,Mg,Na,K)

245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water) 600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.*Drinking Water*

Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307.

Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO₃-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. Organic Parameters: 504.1, 524.2, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH₃-H, 4500NH₃-E, 4500NO₂-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. Organic Parameters: SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO₃-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. Organic Parameters: 504.1, SM6251B, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO₃-F, 4500NO₂-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH₃-H, EPA 350.2/1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. Organic Parameters: SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 3540C, 3545, 3550B, 3580A, 5035L, 5035H.)

New York Department of Health Certificate/Lab ID: 11148.

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO₃-F, 2540C, EPA 120.1, SM 2510B. Organic Parameters: EPA 524.2, 504.1, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405.1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500CI-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH₃-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO₃F, EPA 354.1, SM4500-NO₂-B, EPA 365.2, SM4500P-E, EPA 160.3, SM2540B, EPA 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335.2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376.2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B, 5035.)

Analytical Services Protocol: CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides.

Rhode Island Department of Health Certificate/Lab ID: LAO00065.

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. Registered Laboratory.

Certificate/Approval Program Summary

Last revised February 18, 2009 – Mansfield Facility

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

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

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

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

Florida Department of Health Certificate/Lab ID: E87814.

Non-Potable Water (Inorganic Parameters: SM2320B, 4500NH3-F, EPA 120.1, SM2510B, 2340B, EPA 245.1, EPA 365.2, EPA 150.1, 160.1, SM2540C, EPA 160.2, SM2540D, EPA 335.2, 420.1, SM2540G, EPA 180.1. Organic Parameters: EPA 624, 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 9050, 7470, 7471, 9045, EPA 7.3.3.2, EPA 7.3.4.2, 9014, 9065. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

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

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

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

Maine Department of Human Services Certificate/Lab ID: MA0030.

Wastewater (Inorganic Parameters: EPA 120.1, 300.0, SM 2320, 2510B, 2540C, 2540D, EPA 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

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

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

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

Non-Potable Water (Inorganic Parameters: SW-846 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

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

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035.)

Air & Emissions (EPA TO-15.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299.

Refer to MA-DEP Certificate for Non-Potable Water.

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

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

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7471. Organic Parameters: EPA 8015, 8270.)

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

U.S. Army Corps of Engineers



CHAIN OF CUSTODY

PAGE 1 OF 1

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

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

Client Information

Client: **ERM**

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

Phone: **(617) 646-7800**

Fax: **(617) 647-6447**

Email: **balhaar.frost@erm.com**

Other Project Specific Requirements/Comments/Detection Limits:

Project Information

Project Name: **Raytheon Wayland**

Project Location: **Wayland, MA**

Project #: **0095922**

Project Manager: **Jason Flattery**

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: **4/21/09** Time:

Date Rec'd in Lab:

4/14/09

ALPHA Job #:

20904593

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 **AW 1**

MA MCP PRESUMPTIVE CERTAINTY ... CT REASONABLE CONFIDENCE PROTO.

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

SAMPLE HANDLING

- Done
- Filtration
- Lab to do
- Lab to do
- Preservation
- Lab to do

Sample Specific Comments

ANALYSIS
8021B by 8260
1,4 Dioxane

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ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Samplers Initials
		Date	Time		

04593.1	NW-554D-2009041401	4/14/09	1100	GW	JN	2
	2 NW-555D-20090414-01	4/14/09	1350	L	JN	2

PLEASE ANSWER QUESTIONS ABOVE!

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

Relinquished By:

Clintley Higin
Don Sanders

Date/Time

4/14/09 1:55 PM
4/14/09 PM

Received By:

Don Sanders

Date/Time

4/14/09 1:55 PM
4/14/09 PM

Container Type	Preservative
V	A
B	A

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