12 June 2008

Reference: 0079387

Mr. Robert Schelmerdeine Wayland Meadows Limited Partnership c/o Levco, Inc. 145 Rosemary Street Needham, MA 02494

RE: Transmittal of Groundwater Analytical Data

Former Raytheon Facility

430 Boston Post Road, Wayland, Massachusetts

Dear Mr. Schelmerdeine:

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 one well on the Site within the boundaries of your property on 19 May 2008. The samples were submitted for laboratory analysis of volatile organic compounds. Sample analysis was conducted by Alpha Woods Hole Laboratories of Westborough, Massachusetts. These analytical data will be provided to the Massachusetts Department of Environmental Protection in the next required MCP submittal.

Raytheon has implemented the Public Involvement Process in accordance with 310 CMR 40.1405. Documents pertaining to the Site can be found at the Board of Health, the Wayland Public Library Public Involvement Plan files, or at www.ermne.com (username = raytheon, password = wayland).

Environmental Resources Management

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



Mr. Schelmerdeine Reference: 0079387 12 June 2008 Page 2

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. Drøbinski, P.G., LSP

Principal-in-Charge

Jason D. Flattery Project Manager

enclosures: BWSC-123 - Notice of Environmental Sampling

cc: Louis Burkhardt, Raytheon Company

Ben Gould, CMG Environmental

PIP Repositories



ANALYTICAL REPORT

Lab Number: L0807376

Client: ERM-New England

399 Boylston Street

6th Floor

Boston, MA 02116

ATTN: Jason Flattery

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387 Report Date: 05/28/08

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

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



Project Number: 0079387 **Report Date:** 05/28/08

Alpha Sample ID Client ID Sample Location

L0807376-01 MW-TP-3-20080519-01 WAYLAND, MA

Project Number: 0079387 Report Date: 05/28/08

MADEP MCP Response Action Analytical Report Certification

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

Α	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
В	Were all QA/QC procedures required for the specified analytical methods(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
С	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 re	sponse to questions E and F is required for "Presumptive Certainty" status	
E	Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	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.



L0807376

Lab Number:

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387 Report Date: 05/28/08

Case Narrative

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

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

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

MCP Related Narratives

Volatile Organics

In reference to question E:

The WG323280-1 LCS recovery, associated with L0807376-01, is below the acceptance criteria for Bromoform; however, it has been identified as a "difficult" analyte. The results of the associated sample are reported; however, all results are considered to have a potentially low bias for this compound.

In reference to question F:

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

Michelle M. Morris

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

ANALYTICA

Date: 05/28/08

ORGANICS



VOLATILES



05280810:30

05/19/08 15:40 05/20/08

Not Specified

Date Collected:

Date Received:

Field Prep:

Project Name: RAYTHEON-WAYLAND Lab Number: L0807376

Project Number: 0079387 Report Date: 05/28/08

SAMPLE RESULTS

Lab ID: L0807376-01

Client ID: MW-TP-3-20080519-01

Sample Location: WAYLAND, MA

Matrix: Water
Anaytical Method: 60,8260B
Analytical Date: 05/24/08 01:00

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



05280810:30

Project Name: RAYTHEON-WAYLAND Lab Number: L0807376

Project Number: 0079387 Report Date: 05/28/08

SAMPLE RESULTS

Lab ID: Date Collected: 05/19/08 15:40

Client ID: MW-TP-3-20080519-01 Date Received: 05/20/08
Sample Location: WAYLAND, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
Volatile Organics by MCP 8260B					
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	1
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

		Acceptance					
Surrogate	% Recovery	Qualifier	Criteria				
1,2-Dichloroethane-d4	95		70-130				
Toluene-d8	95		70-130				
4-Bromofluorobenzene	95		70-130				
Dibromofluoromethane	102		70-130				



Project Number: 0079387 Report Date: 05/28/08

Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 05/23/08 18:21

Parameter	Result	Qual	lifier	Units	RDL
olatile Organics by MCP 8260B for	r sample(s):	01	Batch:	WG3232	280-3
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 Number: 0079387 Report Date: 05/28/08

Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 05/23/08 18:21

Result	Qua	lifier	Units	RDL
sample(s):	01	Batch:	WG3232	280-3
ND			ug/l	1.0
ND			-	1.0
ND			-	1.0
ND				0.50
ND				5.0
ND			ug/l	5.0
ND			ug/l	1.0
ND			ug/l	5.0
ND			ug/l	5.0
ND			ug/l	5.0
ND			ug/l	5.0
ND			ug/l	5.0
ND			ug/l	5.0
ND			ug/l	2.5
ND			ug/l	10
ND			ug/l	2.5
ND			ug/l	2.0
ND			ug/l	2.5
ND			ug/l	0.50
ND			ug/l	2.5
ND			ug/l	0.50
ND			ug/l	0.50
ND			ug/l	2.5
ND			ug/l	2.5
ND			ug/l	2.5
ND			ug/l	2.5
ND			ug/l	0.60
ND			ug/l	0.50
ND			ug/l	0.50
ND			ug/l	2.5
ND			ug/l	0.50
	Sample(s): ND ND ND ND ND ND ND ND ND N	Sample(s): 01 ND ND ND ND ND ND ND ND ND N	ND ND	sample(s): 01 Batch: WG3232 ND ug/l ND <



Project Number: 0079387 Report Date: 05/28/08

Method Blank Analysis Batch Quality Control

Analytical Method: 60,8260B Analytical Date: 05/23/08 18:21

arameter	Result	Qual	ifier	Units	RDL
olatile Organics by MCP 8260B for	sample(s):	01	Batch:	WG3232	280-3
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

	Acceptance					
Surrogate	%Recovery	Qualifier Criteria				
1.2-Dichloroethane-d4	94	70-130				
Toluene-d8	95	70-130				
4-Bromofluorobenzene	97	70-130				
Dibromofluoromethane	104	70-130				



Lab Control Sample Analysis Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387

h Quality Control Lab Number: L0807376

Report Date: 05/28/08

rameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
platile Organics by MCP 8260B	Associated sample(s): 01 B	Batch: WG323280-1	WG323280-2		
Methylene chloride	88	94	70-130	7	25
1,1-Dichloroethane	90	95	70-130	5	25
Chloroform	98	102	70-130	4	25
Carbon tetrachloride	78	85	70-130	9	25
1,2-Dichloropropane	86	92	70-130	7	25
Dibromochloromethane	71	72	70-130	1	25
1,1,2-Trichloroethane	81	86	70-130	6	25
Tetrachloroethene	94	98	70-130	4	25
Chlorobenzene	91	95	70-130	4	25
Trichlorofluoromethane	103	109	70-130	6	25
1,2-Dichloroethane	86	91	70-130	6	25
1,1,1-Trichloroethane	87	93	70-130	7	25
Bromodichloromethane	86	91	70-130	6	25
trans-1,3-Dichloropropene	71	72	70-130	1	25
cis-1,3-Dichloropropene	78	84	70-130	7	25
1,1-Dichloropropene	87	92	70-130	6	25
Bromoform	63	70	70-130	11	50
1,1,2,2-Tetrachloroethane	78	83	70-130	6	25
Benzene	94	98	70-130	4	25
Toluene	91	95	70-130	4	25
Ethylbenzene	92	96	70-130	4	25



Lab Control Sample Analysis Batch Quality Control

Project Name: RAYTHEON-WAYLAND

Project Number: 0079387

Lab Number: L0807376

Report Date: 05/28/08

arameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
olatile Organics by MCP 8260B Associa	ited sample(s): 01 Bat	ch: WG323280-1 V	VG323280-2		
Chloromethane	95	98	70-130	3	50
Bromomethane	98	106	70-130	8	50
Vinyl chloride	95	100	70-130	5	25
Chloroethane	108	121	70-130	11	25
1,1-Dichloroethene	86	93	70-130	8	25
trans-1,2-Dichloroethene	120	126	70-130	5	25
Trichloroethene	90	93	70-130	3	25
1,2-Dichlorobenzene	90	95	70-130	5	25
1,3-Dichlorobenzene	92	97	70-130	5	25
1,4-Dichlorobenzene	92	98	70-130	6	25
Methyl tert butyl ether	88	94	70-130	7	25
p/m-Xylene	94	97	70-130	3	25
o-Xylene	98	101	70-130	3	25
cis-1,2-Dichloroethene	96	100	70-130	4	25
Dibromomethane	88	93	70-130	6	25
1,2,3-Trichloropropane	84	88	70-130	5	25
Styrene	96	99	70-130	3	25
Dichlorodifluoromethane	116	118	70-130	2	50
Acetone	72	69	70-130	4	50
Carbon disulfide	84	90	70-130	7	25
2-Butanone	71	74	70-130	4	50



Lab Control Sample Analysis

Batch Quality Control RAYTHEON-WAYLAND

Lab Number: L0807376

Report Date: 05/28/08

Project Name: Project Number:

0079387

LCS LCSD %Recovery %Recovery %Recovery Limits **RPD RPD Limits Parameter** Volatile Organics by MCP 8260B Associated sample(s): 01 WG323280-1 WG323280-2 Batch: 4-Methyl-2-pentanone 70-130 69 72 4 50 2-Hexanone 61 62 70-130 2 50 Bromochloromethane 70-130 25 95 99 4 Tetrahydrofuran 76 72 70-130 5 25 2,2-Dichloropropane 92 70-130 50 86 7 1.2-Dibromoethane 70-130 25 82 84 2 1,3-Dichloropropane 81 82 70-130 25 1,1,1,2-Tetrachloroethane 79 70-130 25 83 5 Bromobenzene 70-130 25 93 98 5 70-130 25 n-Butylbenzene 88 95 8 sec-Butylbenzene 70-130 88 94 25 tert-Butylbenzene 87 94 70-130 8 25 o-Chlorotoluene 70-130 25 91 97 6 70-130 25 p-Chlorotoluene 88 95 8 1,2-Dibromo-3-chloropropane 70-130 50 58 62 7 Hexachlorobutadiene 70-130 25 85 97 13 Isopropylbenzene 107 113 70-130 25 p-Isopropyltoluene 90 97 70-130 7 25 70-130 25 Naphthalene 74 81 9 70-130 25 n-Propylbenzene 91 97 6 1,2,3-Trichlorobenzene 70-130 12 25 78 88



Lab Control Sample Analysis Batch Quality Control

Project Name: RAYTHEON-WAYLAND

0079387

Project Number:

Lab Number:

L0807376

05/28/08

Report Date:

arameter	LCS %Recovery	1	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
olatile Organics by MCP 8260B	Associated sample(s):	01 Batch:	WG323280-1	WG323280-2		
1,2,4-Trichlorobenzene	83		93	70-130	11	25
1,3,5-Trimethylbenzene	88		94	70-130	7	25
1,2,4-Trimethylbenzene	87		92	70-130	6	25
Ethyl ether	80		86	70-130	7	25
Isopropyl Ether	83		88	70-130	6	25
Ethyl-Tert-Butyl-Ether	80		86	70-130	7	25
Tertiary-Amyl Methyl Ether	74		78	70-130	5	25
1,4-Dioxane	73		81	70-130	10	50

Surrogate	LCS %Recovery Qualifier	LCSD %Recovery Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94	95	70-130
Toluene-d8	96	96	70-130
4-Bromofluorobenzene	96	96	70-130
Dibromofluoromethane	105	104	70-130



05280810:30

Project Name: RAYTHEON-WAYLAND Lab Number: L0807376

Project Number: 0079387 Report Date: 05/28/08

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler Custody Seal A Absent

Container Information

Container ID	Container Type	Cooler	рН	Temp	Pres	Seal	Analysis
L0807376-01A	Vial HCl preserved	Α	N/A	3.5C	Υ	Absent	MCP-8260-04
L0807376-01B	Vial HCl preserved	Α	N/A	3.5C	Υ	Absent	MCP-8260-04



Project Name:RAYTHEON-WAYLANDLab Number:L0807376Project Number:0079387Report Date:05/28/08

GLOSSARY

Acronyms

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

Terms

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

Data Qualifiers

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

- A Spectra identified as "Aldol Condensation Product".
- B The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- J Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

Standard Qualifiers

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

Report Format: Data Usability Report



Project Name:RAYTHEON-WAYLANDLab Number:L0807376Project Number:0079387Report Date:05/28/08

REFERENCES

Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-IIIA (Revision 5). May 2004.

LIMITATION OF LIABILITIES

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

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



IS YOUR PROJECT MA MCP or CT RCP?

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

PLEASE ANSWER QUESTIONS ABOVE

Relinquished By:

Preservative Date/Time

Container Type

Date/Time 5/20 9:85

will not start until any ambiguities are '> resolved. All samples submitted are subject to Alpha's Payment Terms.

Sizujut 13:00 See reverse side.

Please print clearly, legibly and

completely. Samples can not be

logged in and turnaround time clock