

ALPHA ANALYTICAL LABORATORIES

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MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: ERM-New England Laboratory Job Number: L0503854  
Address: 399 Boylston Street  
6th Floor Date Received: 12-APR-2005  
Boston, MA 02116 Date Reported: 15-APR-2005  
Attn: Jeremy Picard Delivery Method: Alpha  
Project Number: 28046  
Site: FORMER RAYTHEON FACILITY

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? NA

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

Any answers of NO to the above questions are addressed in the 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 report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: James Todaro  
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0503854  
Date Reported: 15-APR-2005

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0503854-01	MW-203S-20050411-01	WAYLAND, MA
L0503854-02	MW-203M-20050411-01	WAYLAND, MA
L0503854-03	MW-203D-20050411-01	WAYLAND, MA
L0503854-04	MW-47D-20050411-01	WAYLAND, MA
L0503854-05	MW-47M-20050411-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0503854

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Report Submission

In reference to question F, the samples were analyzed only for the compounds specified on the chain of custody.

Metals

L0503854-02 was re-analyzed on a 10x dilution in order to quantitate the sample within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration.

Volatile Organics

L0503854-03 and -05 have elevated limits of detection due to the 2x dilutions required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0503854-01 Date Collected: 11-APR-2005 12:10  
MW-203S-20050411-01 Date Received : 12-APR-2005  
Sample Matrix: WATER Date Reported : 15-APR-2005  
Condition of Sample: Satisfactory Field Prep: Field Filtered  
Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	77.	mg/l	2.0	60 6010B	0413 15:30	0415 11:37	RW
Volatile Organics by MCP 8260B				60 8260B		0414 12:46	RY
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	5.9	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
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				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
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	2.3	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				
Methyl tert butyl ether	ND	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
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				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0503854-01  
 MW-203S-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 12:46		RY
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	105.	%		70-130			
Dibromofluoromethane	100.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0503854-02      Date Collected: 11-APR-2005 13:15  
 MW-203M-20050411-01      Date Received : 12-APR-2005  
 Sample Matrix: WATER      Date Reported : 15-APR-2005  
 Condition of Sample: Satisfactory      Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	>90	mg/l	2	60 6010B	0413 15:30	0415 11:40	RW
Sodium, Dissolved	99.	mg/l	20.	60 6010B	0413 15:30	0415 12:13	RW
Volatile Organics by MCP 8260B				60 8260B		0414 13:23	RY
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	1.0	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	0.54	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
1,2-Dichloroethane	ND	ug/l	0.50				
1,1,1-Trichloroethane	25.	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				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	1.7	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	93.	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				
Methyl tert butyl ether	1.2	ug/l	1.0				
cis-1,2-Dichloroethene	ND	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
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				
o-Chlorotoluene	ND	ug/l	2.5				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0503854-02  
 MW-203M-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 13:23		RY
p-Chlorotoluene	ND	ug/l	2.5				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	101.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0503854-03 Date Collected: 11-APR-2005 14:20  
 MW-203D-20050411-01 Date Received : 12-APR-2005  
 Sample Matrix: WATER Date Reported : 15-APR-2005  
 Condition of Sample: Satisfactory Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	58.	mg/l	2.0	60 6010B	0413 15:30	0415 11:53	RW
Volatile Organics by MCP 8260B				60 8260B		0414 14:00	RY
Methylene chloride	ND	ug/l	10.				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
Tetrachloroethene	3.1	ug/l	1.0				
Chlorobenzene	ND	ug/l	1.0				
1,2-Dichloroethane	ND	ug/l	1.0				
1,1,1-Trichloroethane	ND	ug/l	1.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.0				
cis-1,3-Dichloropropene	ND	ug/l	1.0				
Bromoform	ND	ug/l	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	80.	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
Methyl tert butyl ether	ND	ug/l	2.0				
cis-1,2-Dichloroethene	6.4	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	10.				
1,2-Dibromoethane	ND	ug/l	4.0				
1,3-Dichloropropane	ND	ug/l	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0				
o-Chlorotoluene	ND	ug/l	5.0				
p-Chlorotoluene	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I



ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0503854-03  
 MW-203D-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 14:00		RY
Hexachlorobutadiene	ND	ug/l	2.0				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112.	%		70-130			
Toluene-d8	95.0	%		70-130			
4-Bromofluorobenzene	100.	%		70-130			
Dibromofluoromethane	105.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0503854-04 Date Collected: 11-APR-2005 16:05  
 MW-47D-20050411-01 Date Received : 12-APR-2005  
 Sample Matrix: WATER Date Reported : 15-APR-2005  
 Condition of Sample: Satisfactory Field Prep: Field Filtered  
 Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	68.	mg/l	2.0	60 6010B	0413 15:30	0415 11:56	RW
Volatile Organics by MCP 8260B				60 8260B			0414 14:36 RW
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	1.1	ug/l	0.50				
Chlorobenzene	ND	ug/l	0.50				
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				
Bromoform	ND	ug/l	2.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50				
Benzene	ND	ug/l	0.50				
Chloromethane	ND	ug/l	2.5				
Vinyl chloride	ND	ug/l	1.0				
Chloroethane	ND	ug/l	1.0				
1,1-Dichloroethene	0.75	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	23.	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				
Methyl tert butyl ether	ND	ug/l	1.0				
cis-1,2-Dichloroethene	3.7	ug/l	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
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				
o-Chlorotoluene	ND	ug/l	2.5				
p-Chlorotoluene	ND	ug/l	2.5				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0503854-04  
 MW-47D-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 14:36		RY
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	101.	%		70-130			
Dibromofluoromethane	100.	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

**MA:M-MA086 NH:200301-A CT:PH-0574 ME:MA086 RI:65 NY:11148 NJ:MA935 Army:USACE**

**Laboratory Sample Number:** L0503854-05  
**Sample Matrix:** MW-47M-20050411-01  
**Condition of Sample:** WATER  
**Number & Type of Containers:** 1-Plastic,2-Vial

**Date Collected:** 11-APR-2005 17:40  
**Date Received :** 12-APR-2005  
**Date Reported :** 15-APR-2005

**Field Prep:** Satisfactory  
**Field Filtered:** Field Filtered

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ANAL	ID
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Sodium, Dissolved	27.	mg/l	2.0	60 6010B	0413 15:30	0415 11:59	RW
Volatile Organics by MCP 8260B				60 8260B		0414 15:13	RY
Methylene chloride	ND	ug/l	10.				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
Tetrachloroethene	ND	ug/l	1.0				
Chlorobenzene	ND	ug/l	1.0				
1,2-Dichloroethane	ND	ug/l	1.0				
1,1,1-Trichloroethane	ND	ug/l	1.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.0				
cis-1,3-Dichloropropene	ND	ug/l	1.0				
Bromoform	ND	ug/l	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
Trichloroethene	120	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
Methyl tert butyl ether	ND	ug/l	2.0				
cis-1,2-Dichloroethene	7.1	ug/l	1.0				
Dichlorodifluoromethane	ND	ug/l	10.				
1,2-Dibromoethane	ND	ug/l	4.0				
1,3-Dichloropropane	ND	ug/l	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0				
o-Chlorotoluene	ND	ug/l	5.0				
p-Chlorotoluene	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0503854-05  
 MW-47M-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 15:13		RY
Hexachlorobutadiene	ND	ug/l	2.0				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	102.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	102.	%		70-130			
Dibromofluoromethane	98.0	%		70-130			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0503854

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 01-05 (WG199028-2, WG199028-3)					
Sodium, Dissolved	100	100	0	20	75-125
Volatile Organics by MCP 8260B for sample(s) 01-05 (WG199128-1, WG199128-2)					
Methylene chloride	99	100	1	25	70-130
1,1-Dichloroethane	88	95	8	25	70-130
Chloroform	106	107	1	25	70-130
Carbon tetrachloride	115	109	5	25	70-130
1,2-Dichloropropane	101	96	5	25	70-130
Dibromochloromethane	94	96	2	25	70-130
1,1,2-Trichloroethane	91	95	4	25	70-130
Tetrachloroethene	110	102	8	25	70-130
Chlorobenzene	101	97	4	25	70-130
Trichlorofluoromethane	113	113	0	25	70-130
1,2-Dichloroethane	104	106	2	25	70-130
1,1,1-Trichloroethane	111	107	4	25	70-130
Bromodichloromethane	97	95	2	25	70-130
trans-1,3-Dichloropropene	90	94	4	25	70-130
cis-1,3-Dichloropropene	97	97	0	25	70-130
1,1-Dichloropropene	112	102	9	25	70-130
Bromoform	94	97	3	50	70-130
1,1,2,2-Tetrachloroethane	92	91	1	25	70-130
Benzene	106	100	6	25	70-130
Toluene	101	96	5	25	70-130
Ethylbenzene	103	97	6	25	70-130
Chloromethane	100	84	17	50	70-130
Bromomethane	95	101	6	50	70-130
Vinyl chloride	113	100	12	25	70-130
Chloroethane	100	95	5	25	70-130
1,1-Dichloroethene	104	108	4	25	70-130
trans-1,2-Dichloroethene	104	106	2	25	70-130
Trichloroethene	107	99	8	25	70-130
1,2-Dichlorobenzene	99	94	5	25	70-130
1,3-Dichlorobenzene	101	98	3	25	70-130
1,4-Dichlorobenzene	99	91	8	25	70-130
Methyl tert butyl ether	90	94	4	25	70-130
p/m-Xylene	103	96	7	25	70-130
o-Xylene	103	96	7	25	70-130
cis-1,2-Dichloroethene	102	102	0	25	70-130
Dibromomethane	102	100	2	25	70-130
1,2,3-Trichloropropane	98	98	0	25	70-130
Styrene	102	96	6	25	70-130
Dichlorodifluoromethane	94	92	2	50	70-130
Acetone	99	101	2	50	70-130
Carbon disulfide	102	99	3	25	70-130
2-Butanone	88	96	9	50	70-130
4-Methyl-2-pentanone	93	85	9	50	70-130
2-Hexanone	104	101	3	50	70-130
Bromochloromethane	107	109	2	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0503854

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-05 (WG199128-1, WG199128-2)					
Tetrahydrofuran	85	97	13	25	70-130
2,2-Dichloropropane	97	97	0	25	70-130
1,2-Dibromoethane	94	96	2	25	70-130
1,3-Dichloropropane	93	93	0	25	70-130
1,1,1,2-Tetrachloroethane	98	96	2	25	70-130
Bromobenzene	105	100	5	25	70-130
n-Butylbenzene	101	89	13	25	70-130
sec-Butylbenzene	100	89	12	25	70-130
tert-Butylbenzene	101	92	9	25	70-130
o-Chlorotoluene	98	93	5	25	70-130
p-Chlorotoluene	98	92	6	25	70-130
1,2-Dibromo-3-chloropropane	88	85	3	50	70-130
Hexachlorobutadiene	103	92	11	25	70-130
Isopropylbenzene	103	94	9	25	70-130
p-Isopropyltoluene	99	90	10	25	70-130
Naphthalene	97	102	5	25	70-130
n-Propylbenzene	96	90	6	25	70-130
1,2,3-Trichlorobenzene	104	103	1	25	70-130
1,2,4-Trichlorobenzene	105	97	8	25	70-130
1,3,5-Trimethylbenzene	98	92	6	25	70-130
1,2,4-Trimethylbenzene	97	90	7	25	70-130
Ethyl ether	94	100	6	25	70-130
Isopropyl Ether	98	95	3	25	70-130
Ethyl-Tert-Butyl-Ether	96	94	2	25	70-130
Tertiary-Amyl Methyl Ether	92	93	1	25	70-130
1,4-Dioxane	100	105	5	50	70-130
Surrogate (s)					
1,2-Dichloroethane-d4	101	108	7		70-130
Toluene-d8	97	98	1		70-130
4-Bromofluorobenzene	99	97	2		70-130
Dibromofluoromethane	99	106	7		70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503854

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05 (WG199028-1)							
Dissolved Metals by MCP 6000/7000 series <span style="float: right;">60 6010B</span>							
Sodium, Dissolved	ND	mg/l	2.0	60 6010B	0413 15:30	0415 11:00	RW
Blank Analysis for sample(s) 01-05 (WG199128-3)							
Volatile Organics by MCP 8260B <span style="float: right;">60 8260B</span>							
Methylene chloride	ND	ug/l	5.0				0414 10:19 RY
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				
Methyl tert butyl ether	ND	ug/l	1.0				
p/m-Xylene	ND	ug/l	0.50				
o-Xylene	ND	ug/l	0.50				
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	0.50				
Dichlorodifluoromethane	ND	ug/l	5.0				
Acetone	ND	ug/l	5.0				
Carbon disulfide	ND	ug/l	5.0				



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503854

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-05 (WG199128-3)							
Volatile Organics by MCP 8260B continued				60 8260B	0414 10:19 RY		
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	1.0				
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				
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 (s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	101.	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	100.	%	70-130				
Dibromofluoromethane	95.0	%	70-130				

ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I

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REFERENCES

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.

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.  
METHOD Method number by which analysis was performed.  
ID Initials of the analyst.  
ND Not detected in comparison to the reported detection limit.  
NI Not Ignitable.  
ug/cart Micrograms per Cartridge.

LIMITATION OF LIABILITIES

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

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

ALPHA ANALYTICAL LABORATORIES  
LOGIN SPECIFIC INFORMATION

Laboratory Job Number: L0503854

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
L0503854-01A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-01B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-01C	Plastic 250ml HNO3 preserved	A	<2	2.2 C	Y	Absent	MCP-NA-6010S
L0503854-02A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-02B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-02C	Plastic 250ml HNO3 preserved	A	<2	2.2 C	Y	Absent	MCP-NA-6010S
L0503854-03A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-03B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-03C	Plastic 250ml HNO3 preserved	A	<2	2.2 C	Y	Absent	MCP-NA-6010S
L0503854-04A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-04B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-04C	Plastic 250ml HNO3 preserved	A	<2	2.2 C	Y	Absent	MCP-NA-6010S
L0503854-05A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-05B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503854-05C	Plastic 250ml HNO3 preserved	A	<2	2.2 C	Y	Absent	MCP-NA-6010S

Container Comments

Container ID	Comments
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# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Eight Walkup Drive Westborough, MA 01581  
TEL: 508-898-9220 FAX: 508-898-9193

### Client Information

Client: ERM NE

Address: 399 Boston St. 6th Floor

Boston, MA 02116

Phone: 617-646-7800

Fax: 617-267-6447

Email: system.eric@erm.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

### Project Information

Project Name: Baytheon Gow

Project Location: Weyford, MA

Project #: 28016

Project Manager: Seremj Pleand

ALPHA Quote #:

### Turn-Around Time

Standard

RUSH (only confirmed if pre-approved!)

Date Due:

4/19 Time:

Date Rec'd in Lab: 4/12

### Report Information - Data Deliverables

FAX  EMAIL

BADEX  Add'l Deliverables

### Regulatory Requirements/Report Limits

State/Fed Program

MCP

Criteria

ALPHA Job #: 20703674

### Billing Information

Same as Client Info PO #:

### MCP PRESUMPTIVE CERTAINTY - THESE QUESTIONS MUST BE ANSWERED

- Yes  No Are MCP Analytical Methods Required?
- Yes  No Are Drinking Water Samples Submitted?
- Yes  No Have you met minimum field QC requirements?

### SAMPLE HANDLING

- Done Filtration
- Not needed
- Lab to do Preservation
- Lab to do

### Sample Specific Comments

Field filtered (N2)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS		MCP PRESUMPTIVE CERTAINTY	Regulatory Requirements/Report Limits	State/Fed Program	Criteria	Billing Information	Sample Specific Comments
		Date	Time			VOC (8021B, w/active blank)	Dis Na (FF)						
3814.1	MW-2035-20050411-01	4/11/05	1210	GW	EB	X	X	X					
2	MW-2035-20050411-01		1315			X	X	X					
3	MW-2035-20050411-01		1420			X	X	X					
4	MW-471D-20050411-01		1605			X	X	X					
	MW-471M-20050411-01		1740			X	X	X					

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

Container Type	Preservative	Date/Time	Received By:	Date/Time
PV	P			
B	C			

Relinquished By: Kevin Boyce 4/12/05

Date/Time: 4/12/05

Received By: [Signature]

Date/Time: 4/12/05

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