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

Address: 399 Boylston Street
6th Floor
Boston, MA 02116

Attn: Jeremy Picard

Project Number: 13606

Site: RAYTHEON WAYLAND

Laboratory Job Number: L0413853

Date Received: 10-DEC-2004

Date Reported: 17-DEC-2004

Delivery Method: Alpha

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?	NO
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: Scott McLean
This document electronically signed

Laboratory Job Number: L0413853
Date Reported: 17-DEC-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0413853-01	MW-45S	WAYLAND, MA
L0413853-02	MW-202M	WAYLAND, MA
L0413853-03	MW-40	WAYLAND, MA
L0413853-04	MW-40S	WAYLAND, MA
L0413853-05	MW-268M	WAYLAND, MA
L0413853-06	MW-268B	WAYLAND, MA
L0413853-07	FD-01	WAYLAND, MA
L0413853-08	MW-33S	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0413853

MCP Related Narratives

Report Submission

In reference to question F, at the client's request, the samples were analyzed only for the compounds specified on the chain of custody.

Volatile Organics

L0413853-02 and -05 have elevated limits of detection due to the dilutions (2.5x and 200x) required by the elevated concentrations of target compounds in the samples.

L0413853-08 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.

In reference to question E, the LCS/LCSD % recoveries for Dichlorodifluoromethane, a difficult analyte, associated with L0413853-07 and -08, are below the acceptance criteria for the method.

Metals

L0413853-03 was re-analyzed on a 5x dilution in order to quantitate the Sodium 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.

In reference to question E:

The MS/MSD % recoveries for Sodium are invalid because the sample concentration is greater than four times the spike amount added.

The MS/MSD RPD for Sodium is above of the acceptance criteria for the method.

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: L0413853-01
MW-45S
Sample Matrix: WATER

Date Collected: 10-DEC-2004 09:35
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B				60 8260B		1215 02:07	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	2.6	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	6.4	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	12.	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				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	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: L0413853-01
MW-45S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1215 02:07	RY
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	111.	%	70-130				
Toluene-d8	105.	%	70-130				
4-Bromofluorobenzene	108.	%	70-130				
Dibromofluoromethane	99.0	%	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: L0413853-02
MW-202M
Sample Matrix: WATER

Date Collected: 10-DEC-2004 11:00
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B				60 8260B		1215 02:43	RY
Methylene chloride	ND	ug/l	12.				
1,1-Dichloroethane	ND	ug/l	1.9				
Chloroform	ND	ug/l	1.9				
Carbon tetrachloride	ND	ug/l	1.2				
1,2-Dichloropropane	ND	ug/l	4.4				
Dibromochloromethane	ND	ug/l	1.2				
1,1,2-Trichloroethane	ND	ug/l	1.9				
Tetrachloroethene	ND	ug/l	1.2				
Chlorobenzene	ND	ug/l	1.2				
1,2-Dichloroethane	ND	ug/l	1.2				
1,1,1-Trichloroethane	9.8	ug/l	1.2				
Bromodichloromethane	ND	ug/l	1.2				
trans-1,3-Dichloropropene	ND	ug/l	1.2				
cis-1,3-Dichloropropene	ND	ug/l	1.2				
Bromoform	ND	ug/l	5.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.2				
Benzene	ND	ug/l	1.2				
Chloromethane	ND	ug/l	6.2				
Vinyl chloride	ND	ug/l	2.5				
Chloroethane	ND	ug/l	2.5				
1,1-Dichloroethene	ND	ug/l	1.2				
trans-1,2-Dichloroethene	ND	ug/l	1.9				
Trichloroethene	37.	ug/l	1.2				
1,2-Dichlorobenzene	ND	ug/l	6.2				
1,3-Dichlorobenzene	ND	ug/l	6.2				
1,4-Dichlorobenzene	ND	ug/l	6.2				
Methyl tert butyl ether	280	ug/l	2.5				
cis-1,2-Dichloroethene	ND	ug/l	1.2				
Dichlorodifluoromethane	ND	ug/l	12.				
1,2-Dibromoethane	ND	ug/l	5.0				
1,3-Dichloropropane	ND	ug/l	6.2				
1,1,1,2-Tetrachloroethane	ND	ug/l	1.2				
o-Chlorotoluene	ND	ug/l	6.2				
p-Chlorotoluene	ND	ug/l	6.2				
Hexachlorobutadiene	ND	ug/l	2.5				
1,2,4-Trichlorobenzene	ND	ug/l	6.2				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413853-02
MW-202M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1215 02:43	RY
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	110.	%	70-130				
Toluene-d8	106.	%	70-130				
4-Bromofluorobenzene	108.	%	70-130				
Dibromofluoromethane	98.0	%	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: L0413853-03
MW-40
Sample Matrix: WATER

Date Collected: 10-DEC-2004 10:35
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 6-Plastic,6-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	75.	mg/l	1.0	1	9251		1211 15:59	ED
Dissolved Metals by MCP 6000/7000 series				60	6010B			
Sodium, Dissolved	78.	mg/l	10.	60	6010B	1213 18:00	1214 17:21	RW
Sodium, Dissolved	>20	mg/l	2	60	6010B	1213 18:00	1214 17:24	RW
Volatile Organics by MCP 8260B				60	8260B		1215 23:33	SE
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	0.88	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					
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	4.1	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					
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: L0413853-03
MW-40

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1215 23:33	SE
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	112.	%	70-130				
Toluene-d8	102.	%	70-130				
4-Bromofluorobenzene	103.	%	70-130				
Dibromofluoromethane	102.	%	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: L0413853-04
MW-40S
Sample Matrix: WATER

Date Collected: 10-DEC-2004 09:30
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	1216	00:09	SE
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				
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				
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	1.7	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				
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				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				

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

Laboratory Sample Number: L0413853-04
MW-40S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1216 00:09	SE
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	107.	%	70-130				
Toluene-d8	103.	%	70-130				
4-Bromofluorobenzene	105.	%	70-130				
Dibromofluoromethane	103.	%	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: L0413853-05
MW-268M
Sample Matrix: WATER

Date Collected: 10-DEC-2004 11:40
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Arsenic, Dissolved	ND	mg/l	0.005	60 6010B	1213 18:00	1214 17:42	RW
Volatile Organics by MCP 8260B				60 8260B		1216 00:44	SE
Methylene chloride	ND	ug/l	1000				
1,1-Dichloroethane	ND	ug/l	150				
Chloroform	ND	ug/l	150				
Carbon tetrachloride	ND	ug/l	100				
1,2-Dichloropropane	ND	ug/l	350				
Dibromochloromethane	ND	ug/l	100				
1,1,2-Trichloroethane	ND	ug/l	150				
Tetrachloroethene	ND	ug/l	100				
Chlorobenzene	ND	ug/l	100				
1,2-Dichloroethane	ND	ug/l	100				
1,1,1-Trichloroethane	ND	ug/l	100				
Bromodichloromethane	ND	ug/l	100				
trans-1,3-Dichloropropene	ND	ug/l	100				
cis-1,3-Dichloropropene	ND	ug/l	100				
Bromoform	ND	ug/l	400				
1,1,2,2-Tetrachloroethane	ND	ug/l	100				
Chloromethane	ND	ug/l	500				
Vinyl chloride	220	ug/l	200				
Chloroethane	ND	ug/l	200				
1,1-Dichloroethene	ND	ug/l	100				
trans-1,2-Dichloroethene	ND	ug/l	150				
Trichloroethene	2400	ug/l	100				
1,2-Dichlorobenzene	ND	ug/l	500				
1,3-Dichlorobenzene	ND	ug/l	500				
1,4-Dichlorobenzene	ND	ug/l	500				
cis-1,2-Dichloroethene	5400	ug/l	100				
Dichlorodifluoromethane	ND	ug/l	1000				
1,2-Dibromoethane	ND	ug/l	400				
1,3-Dichloropropane	ND	ug/l	500				
1,1,1,2-Tetrachloroethane	ND	ug/l	100				
o-Chlorotoluene	ND	ug/l	500				
p-Chlorotoluene	ND	ug/l	500				
Hexachlorobutadiene	ND	ug/l	200				
1,2,4-Trichlorobenzene	ND	ug/l	500				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413853-05
MW-268M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1216 00:44	SE
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	112.	%	70-130				
Toluene-d8	103.	%	70-130				
4-Bromofluorobenzene	103.	%	70-130				
Dibromofluoromethane	102.	%	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: L0413853-06
MW-268B
Sample Matrix: WATER

Date Collected: 10-DEC-2004 10:05
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Arsenic, Dissolved	0.007	mg/l	0.005	60 6010B	1213 18:00	1214 17:53	RW
Volatile Organics by MCP 8260B				60 8260B		1216 01:20	SE
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				
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				
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	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				
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				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	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: L0413853-06
MW-268B

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1216 01:20	SE
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109.	%	70-130				
Toluene-d8	101.	%	70-130				
4-Bromofluorobenzene	103.	%	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: L0413853-07
FD-01
Sample Matrix: WATER

Date Collected: 10-DEC-2004 00:00
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 1-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Dissolved Metals by MCP 6000/7000 series				60 6010B			
Arsenic, Dissolved	0.008	mg/l	0.005	60 6010B	1213 18:00	1214 17:56	RW
Volatile Organics by MCP 8260B				60 8260B		1216 12:35	SE
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				
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				
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	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				
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				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	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: L0413853-07
FD-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B		1216 12:35	SE
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	108.	%	70-130				
Toluene-d8	102.	%	70-130				
4-Bromofluorobenzene	107.	%	70-130				
Dibromofluoromethane	102.	%	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: L0413853-08
MW-33S
Sample Matrix: WATER

Date Collected: 10-DEC-2004 11:40
Date Received : 10-DEC-2004
Date Reported : 17-DEC-2004

Condition of Sample: Satisfactory

Field Prep: Field Filtered

Number & Type of Containers: 2-Plastic,2-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Chloride	12.	mg/l	1.0	1	9251		1211 16:00	ED
Dissolved Metals by MCP 6000/7000 series				60	6010B			
Sodium, Dissolved	8.9	mg/l	2.0	60	6010B	1213 18:00	1214 17:59	RW
Volatile Organics by MCP 8260B				60	8260B		1216 02:32	SE
Methylene chloride	ND	ug/l	10.					
1,1-Dichloroethane	1.6	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	150	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					
Chloromethane	ND	ug/l	5.0					
Vinyl chloride	ND	ug/l	2.0					
Chloroethane	ND	ug/l	2.0					
1,1-Dichloroethene	4.6	ug/l	1.0					
trans-1,2-Dichloroethene	ND	ug/l	1.5					
Trichloroethene	>200	ug/l	1					
1,2-Dichlorobenzene	ND	ug/l	5.0					
1,3-Dichlorobenzene	ND	ug/l	5.0					
1,4-Dichlorobenzene	ND	ug/l	5.0					
cis-1,2-Dichloroethene	1.6	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: L0413853-08
MW-33S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B continued				60 8260B	1216	02:32	SE
Hexachlorobutadiene	ND	ug/l	2.0				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	108.	%	70-130				
Toluene-d8	103.	%	70-130				
4-Bromofluorobenzene	105.	%	70-130				
Dibromofluoromethane	103.	%	70-130				
Volatile Organics by MCP 8260B				60 8260B	1216	13:11	SE
Trichloroethene	560	ug/l	5.0				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109.	%	70-130				
Toluene-d8	103.	%	70-130				
4-Bromofluorobenzene	106.	%	70-130				
Dibromofluoromethane	104.	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0413853

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Chloride for sample(s) 03,08 (L0413851-02, WG189153)					
Chloride	96.	95.	mg/l	1	7

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0413853

Parameter	% Recovery	QC Criteria
Chloride LCS for sample(s) 03,08 (WG189153)		
Chloride	93	84-110
Chloride SPIKE for sample(s) 03,08 (L0413851-01, WG189153)		
Chloride	90	58-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413853

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 03,05-08 (WG189237-4, WG189237)					
Arsenic, Dissolved	102	105	3	20	75-125
Sodium, Dissolved	100	100	0	20	75-125
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG189312-4, WG189312)					
Methylene chloride	94	93	1	25	70-130
1,1-Dichloroethane	89	98	10	25	70-130
Chloroform	94	92	2	25	70-130
Carbon tetrachloride	98	97	1	25	70-130
1,2-Dichloropropane	94	94	0	25	70-130
Dibromochloromethane	87	86	1	25	70-130
1,1,2-Trichloroethane	93	94	1	25	70-130
Tetrachloroethene	95	92	3	25	70-130
Chlorobenzene	94	91	3	25	70-130
Trichlorofluoromethane	106	99	7	25	70-130
1,2-Dichloroethane	98	97	1	25	70-130
1,1,1-Trichloroethane	103	101	2	25	70-130
Bromodichloromethane	92	90	2	25	70-130
trans-1,3-Dichloropropene	94	96	2	25	70-130
cis-1,3-Dichloropropene	91	91	0	25	70-130
1,1-Dichloropropene	100	98	2	25	70-130
Bromoform	82	82	0	50	70-130
1,1,2,2-Tetrachloroethane	98	94	4	25	70-130
Benzene	98	96	2	25	70-130
Toluene	100	97	3	25	70-130
Ethylbenzene	100	97	3	25	70-130
Chloromethane	101	100	1	50	70-130
Bromomethane	82	88	7	50	70-130
Vinyl chloride	106	107	1	25	70-130
Chloroethane	105	100	5	25	70-130
1,1-Dichloroethene	100	97	3	25	70-130
trans-1,2-Dichloroethene	99	97	2	25	70-130
Trichloroethene	92	92	0	25	70-130
1,2-Dichlorobenzene	92	87	6	25	70-130
1,3-Dichlorobenzene	92	88	4	25	70-130
1,4-Dichlorobenzene	90	87	3	25	70-130
Methyl tert butyl ether	98	100	2	25	70-130
p/m-Xylene	97	95	2	25	70-130
o-Xylene	96	94	2	25	70-130
cis-1,2-Dichloroethene	98	97	1	25	70-130
Dibromomethane	97	95	2	25	70-130
1,2,3-Trichloropropane	94	94	0	25	70-130
Styrene	95	93	2	25	70-130
Dichlorodifluoromethane	108	103	5	50	70-130
Acetone	99	89	11	50	70-130
Carbon disulfide	100	97	3	25	70-130
2-Butanone	93	87	7	50	70-130
4-Methyl-2-pentanone	87	82	6	50	70-130
2-Hexanone	100	94	6	50	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413853

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-02 (WG189312-4, WG189312)					
Bromochloromethane	98	94	4	25	70-130
Tetrahydrofuran	104	100	4	25	70-130
2,2-Dichloropropane	99	112	12	25	70-130
1,2-Dibromoethane	92	91	1	25	70-130
1,3-Dichloropropane	94	95	1	25	70-130
1,1,1,2-Tetrachloroethane	90	89	1	25	70-130
Bromobenzene	91	87	4	25	70-130
n-Butylbenzene	104	98	6	25	70-130
sec-Butylbenzene	102	98	4	25	70-130
tert-Butylbenzene	101	96	5	25	70-130
o-Chlorotoluene	100	96	4	25	70-130
p-Chlorotoluene	99	96	3	25	70-130
1,2-Dibromo-3-chloropropane	90	90	0	50	70-130
Hexachlorobutadiene	98	86	13	25	70-130
Isopropylbenzene	98	95	3	25	70-130
p-Isopropyltoluene	99	93	6	25	70-130
Naphthalene	80	80	0	25	70-130
n-Propylbenzene	102	99	3	25	70-130
1,2,3-Trichlorobenzene	79	79	0	25	70-130
1,2,4-Trichlorobenzene	82	79	4	25	70-130
1,3,5-Trimethylbenzene	101	96	5	25	70-130
1,2,4-Trimethylbenzene	99	94	5	25	70-130
Ethyl ether	91	92	1	25	70-130
Isopropyl Ether	88	89	1	25	70-130
Ethyl-Tert-Butyl-Ether	86	86	0	25	70-130
Tertiary-Amyl Methyl Ether	84	85	1	25	70-130
1,4-Dioxane	108	107	1	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	105	102	3		70-130
Toluene-d8	103	103	0		70-130
4-Bromofluorobenzene	106	103	3		70-130
Dibromofluoromethane	99	101	2		70-130
Volatile Organics by MCP 8260B for sample(s) 03-06,08 (WG189573-3, WG189573)					
Methylene chloride	87	88	1	25	70-130
1,1-Dichloroethane	92	93	1	25	70-130
Chloroform	88	89	1	25	70-130
Carbon tetrachloride	94	96	2	25	70-130
1,2-Dichloropropane	89	92	3	25	70-130
Dibromochloromethane	89	93	4	25	70-130
1,1,2-Trichloroethane	84	88	5	25	70-130
Tetrachloroethene	91	87	4	25	70-130
Chlorobenzene	91	91	0	25	70-130
1,2-Dichloroethane	94	94	0	25	70-130
1,1,1-Trichloroethane	91	89	2	25	70-130
Bromodichloromethane	88	88	0	25	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413853

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 03-06,08 (WG189573-3, WG189573)					
trans-1,3-Dichloropropene	88	90	2	25	70-130
cis-1,3-Dichloropropene	90	88	2	25	70-130
Bromoform	82	90	9	50	70-130
1,1,2,2-Tetrachloroethane	85	89	5	25	70-130
Chloromethane	81	81	0	50	70-130
Vinyl chloride	87	82	6	25	70-130
Chloroethane	86	82	5	25	70-130
1,1-Dichloroethene	87	88	1	25	70-130
trans-1,2-Dichloroethene	89	90	1	25	70-130
Trichloroethene	92	89	3	25	70-130
1,2-Dichlorobenzene	87	88	1	25	70-130
1,3-Dichlorobenzene	89	90	1	25	70-130
1,4-Dichlorobenzene	88	90	2	25	70-130
cis-1,2-Dichloroethene	88	84	5	25	70-130
Dichlorodifluoromethane	72	70	3	50	70-130
1,2-Dibromoethane	85	90	6	25	70-130
1,3-Dichloropropane	88	92	4	25	70-130
1,1,1,2-Tetrachloroethane	92	93	1	25	70-130
o-Chlorotoluene	90	90	0	25	70-130
p-Chlorotoluene	90	88	2	25	70-130
Hexachlorobutadiene	85	87	2	25	70-130
1,2,4-Trichlorobenzene	85	89	5	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	103	105	2		70-130
Toluene-d8	101	100	1		70-130
4-Bromofluorobenzene	101	103	2		70-130
Dibromofluoromethane	103	104	1		70-130
Volatile Organics by MCP 8260B for sample(s) 07-08 (WG189573-6, WG189573)					
Methylene chloride	89	93	4	25	70-130
1,1-Dichloroethane	89	98	10	25	70-130
Chloroform	87	95	9	25	70-130
Carbon tetrachloride	91	100	9	25	70-130
1,2-Dichloropropane	89	97	9	25	70-130
Dibromochloromethane	92	96	4	25	70-130
1,1,2-Trichloroethane	90	96	6	25	70-130
Tetrachloroethene	86	93	8	25	70-130
Chlorobenzene	91	99	8	25	70-130
1,2-Dichloroethane	95	102	7	25	70-130
1,1,1-Trichloroethane	88	98	11	25	70-130
Bromodichloromethane	90	96	6	25	70-130
trans-1,3-Dichloropropene	90	97	7	25	70-130
cis-1,3-Dichloropropene	89	96	8	25	70-130
Bromoform	81	96	17	50	70-130
1,1,2,2-Tetrachloroethane	85	97	13	25	70-130
Chloromethane	81	84	4	50	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413853

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 07-08 (WG189573-6, WG189573)					
Vinyl chloride	84	91	8	25	70-130
Chloroethane	82	90	9	25	70-130
1,1-Dichloroethene	83	92	10	25	70-130
trans-1,2-Dichloroethene	89	94	5	25	70-130
Trichloroethene	87	97	11	25	70-130
1,2-Dichlorobenzene	84	94	11	25	70-130
1,3-Dichlorobenzene	84	91	8	25	70-130
1,4-Dichlorobenzene	86	94	9	25	70-130
cis-1,2-Dichloroethene	84	93	10	25	70-130
Dichlorodifluoromethane	66	68	3	50	70-130
1,2-Dibromoethane	87	96	10	25	70-130
1,3-Dichloropropane	91	98	7	25	70-130
1,1,1,2-Tetrachloroethane	94	101	7	25	70-130
o-Chlorotoluene	82	95	15	25	70-130
p-Chlorotoluene	84	93	10	25	70-130
Hexachlorobutadiene	81	87	7	25	70-130
1,2,4-Trichlorobenzene	83	95	13	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	107	108	1		70-130
Toluene-d8	104	101	3		70-130
4-Bromofluorobenzene	98	103	5		70-130
Dibromofluoromethane	103	100	3		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0413853

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Dissolved Metals by MCP 6000/7000 series for sample(s) 03,05-08 (L0413853-03, WG189237)					
Arsenic, Dissolved	106	107	1	20	75-125
Sodium, Dissolved	20	70	111	20	75-125
Volatile Organics by MCP 8260B for sample(s) 03-08 (L0413853-03, WG189573)					
Methylene chloride	99	106	7	30	70-130
1,1-Dichloroethane	111	115	4	30	70-130
Chloroform	105	106	1	30	70-130
Carbon tetrachloride	118	126	7	30	70-130
1,2-Dichloropropane	106	106	0	30	70-130
Dibromochloromethane	104	109	5	30	70-130
1,1,2-Trichloroethane	104	108	4	30	70-130
Tetrachloroethene	105	110	5	30	70-130
Chlorobenzene	107	111	4	30	70-130
1,2-Dichloroethane	113	115	2	30	70-130
1,1,1-Trichloroethane	115	120	4	30	70-130
Bromodichloromethane	104	112	7	30	70-130
trans-1,3-Dichloropropene	104	112	7	30	70-130
cis-1,3-Dichloropropene	105	109	4	30	70-130
Bromoform	99	105	6	30	70-130
1,1,2,2-Tetrachloroethane	98	104	6	30	70-130
Chloromethane	117	115	2	30	70-130
Vinyl chloride	119	119	0	30	70-130
Chloroethane	112	112	0	30	70-130
1,1-Dichloroethene	108	110	2	30	70-130
trans-1,2-Dichloroethene	106	109	3	30	70-130
Trichloroethene	114	117	3	30	70-130
1,2-Dichlorobenzene	100	104	4	30	70-130
1,3-Dichlorobenzene	100	103	3	30	70-130
1,4-Dichlorobenzene	103	103	0	30	70-130
cis-1,2-Dichloroethene	103	105	2	30	70-130
Dichlorodifluoromethane	117	117	0	30	70-130
1,2-Dibromoethane	102	109	7	30	70-130
1,3-Dichloropropane	107	109	2	30	70-130
1,1,1,2-Tetrachloroethane	108	113	5	30	70-130
o-Chlorotoluene	103	106	3	30	70-130
p-Chlorotoluene	103	106	3	30	70-130
Hexachlorobutadiene	105	103	2	30	70-130
1,2,4-Trichlorobenzene	101	104	3	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	110	112	2		70-130
Toluene-d8	102	101	1		70-130
4-Bromofluorobenzene	103	99	4		70-130
Dibromofluoromethane	105	103	2		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413853

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03,08 (WG189153-1)								
Chloride	ND	mg/l	1.0	1	9251		1211 16:01	ED
Blank Analysis for sample(s) 03,05-08 (WG189237-3)								
Dissolved Metals by MCP 6000/7000 series				60	6010B			
Arsenic, Dissolved	ND	mg/l	0.005	60	6010B	1213 18:00	1214 17:14	RW
Sodium, Dissolved	ND	mg/l	2.0	60	6010B	1213 18:00	1214 17:14	RW
Blank Analysis for sample(s) 01-02 (WG189312-6)								
Volatile Organics by MCP 8260B				60	8260B		1214 17:51	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	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					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413853

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG189312-6)							
Volatile Organics by MCP 8260B continued				60 8260B		1214 17:51	RY
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				
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	102.	%	70-130				
Toluene-d8	103.	%	70-130				
4-Bromofluorobenzene	107.	%	70-130				
Dibromofluoromethane	95.0	%	70-130				
Blank Analysis for sample(s) 03-06,08 (WG189573-5)							
Volatile Organics by MCP 8260B				60 8260B		1215 18:10	SE
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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413853

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03-06,08 (WG189573-5)							
Volatile Organics by MCP 8260B continued				60 8260B		1215 18:10	SE
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				
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				
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	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				
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				
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	103.	%	70-130				
4-Bromofluorobenzene	106.	%	70-130				
Dibromofluoromethane	100.	%	70-130				
Blank Analysis for sample(s) 07-08 (WG189573-8)							
Volatile Organics by MCP 8260B				60 8260B		1216 11:23	SE
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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413853

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 07-08 (WG189573-8)							
Volatile Organics by MCP 8260B continued				60 8260B		1216 11:23	SE
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				
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	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				
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				
Hexachlorobutadiene	ND	ug/l	1.0				
1,2,4-Trichlorobenzene	ND	ug/l	2.5				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	109.	%	70-130				
Toluene-d8	104.	%	70-130				
4-Bromofluorobenzene	105.	%	70-130				
Dibromofluoromethane	101.	%	70-130				

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.

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.

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: L0413853

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0413853-01A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-01B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-02A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-02B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03C	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03D	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03E	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03F	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-03G	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-NA-6010S
L0413853-03H	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-NA-6010S
L0413853-03I	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-NA-6010S
L0413853-03J	Plastic 250ml unpreserved	C	=7	1.6 C	Y	Absent	CL-9251
L0413853-03K	Plastic 250ml unpreserved	C	=7	1.6 C	Y	Absent	CL-9251
L0413853-03L	Plastic 250ml unpreserved	C	=7	1.6 C	Y	Absent	CL-9251
L0413853-04A	Vial Na2S2O3 preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-04B	Vial Na2S2O3 preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-05A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-05B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-05C	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-AS-6010S
L0413853-06A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-06B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-06C	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-AS-6010S
L0413853-07A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-07B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-07C	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-AS-6010S
L0413853-08A	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-08B	Vial HCl preserved	C	N/A	1.6 C	Y	Absent	MCP-8260-04
L0413853-08C	Plastic 250ml HNO3 preserved	C	<2	1.6 C	Y	Absent	MCP-NA-6010S
L0413853-08D	Plastic 250ml unpreserved	C	=7	1.6 C	Y	Absent	CL-9251

Container Comments

Container ID	Comments

CHAIN OF CUSTODY

PAGE _____ OF _____

Date Rec'd in Lab: 12/10

ALPHA Job #: L0413853

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

Client Information

Client: ERM
Address: 399 Boylston Street
Boston MA. 02116
Phone: 617-646-7800
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Raytheon
Project Location: Wayland, MA
Project #: 13606
Project Manager: Jeremy Picard
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 12/17 Time:

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
MCP	

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?

Other Project Specific Requirements/Comments/Detection Limits:
As - Na+ is field filtered
Other Preservative: Thiosulfate

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8021B, MTBE, Rearrange	8021B Chlorinated	Dissolved Nat Cl-	8021B chlor	Diss Arsenic	TOTAL # BOTTLES
38753.1	MW-45S	12/10/04	935	GW	EJM	2					2
2	MW-202M	12/10/04	1100	GW	EJM	2					2
3	MW-40	12/10/04	1025	GW	JDF		2	1	1		4
3	MS MW-40	12/10/04	1030	GW	JDF		2	1	1		4
3	MSD MW-40	12/10/04	1035	GW	JDF		2	1	1		4
4	MW-40S	12/10/04	0930	GW	JDF					2	2
5	MW-206BM	12-10-04	1140	GW	BT		2				3
6	MW-206B	12-10-04	1005	GW	BT		2				3
7	FD-01	12-10-04	2400	GW	BT		2				3
8	MW-33S	12-10-04	11:40	GW	LR		✓	✓	✓	✓	4
	Container Type					V	V	P	P	V	
	Preservative					B	B	C	A	O	

SAMPLE HANDLING

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

Sample Specific Comments

QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

IS YOUR PROJECT MCP ?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/10/04 1430	[signature]	12/10/04 1430
	12-10-04		12-10-04

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

FORM NO: 01-01