

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: L0413854
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 10-DEC-2004
Attn: Jeremy Picard Date Reported: 17-DEC-2004
Project Number: 13606 Delivery Method: Alpha
Site: RAYTHEON WAYLAND

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: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0413854
Date Reported: 17-DEC-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0413854-01	MW-206D	WAYLAND, MA
L0413854-02	MW-206S	WAYLAND, MA
L0413854-03	MW-206M	WAYLAND, MA
L0413854-04	MW-45B	WAYLAND, MA
L0413854-05	MW-45M	WAYLAND, MA
L0413854-06	FD-10	WAYLAND, MA
L0413854-07	MW-45D	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0413854

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.

ALPHA ANALYTICAL LABORATORIES
 CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0413854-01
 MW-206D

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216 03.08 SE		
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106.	%		70-130			
Toluene-d8	104.	%		70-130			
4-Bromofluorobenzene	105.	%		70-130			
Dibromofluoromethane	104.	%		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: L0413854-02 Date Collected: 09-DEC-2004 10:45
 MW-206S Date Received : 10-DEC-2004
 Sample Matrix: WATER 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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216 03.44		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				
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	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				
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: L0413854-02
 MW-206S

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216	03:44	SE
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106.	%		70-130			
Toluene-d8	104.	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	104.	%		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: L0413854-03

Date Collected: 09-DEC-2004 13:25

MW-206M

Date Received : 10-DEC-2004

Sample Matrix:

WATER

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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216 04:20 SE		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	3.0	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	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				
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	3.2	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	20.	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	1.6	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: L0413854-03
MW-206M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216 04:20		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	103.	%		70-130			
4-Bromofluorobenzene	107.	%		70-130			
Dibromofluoromethane	105.	%		70-130			

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

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 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: L0413854-04 Date Collected: 09-DEC-2004 14:30
 MW-45B Date Received : 10-DEC-2004
 Sample Matrix: WATER 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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216	17:43	BT
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				
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	53.	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	3.0	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: L0413854-04
 MW-45B

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B		1216 17:43	BT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112.	%		70-130			
Toluene-d8	102.	%		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: L0413854-05

Date Collected: 09-DEC-2004 15:35

MW-45M

Date Received : 10-DEC-2004

Sample Matrix:

WATER

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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216 18:19 BT		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	1.2	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	13.	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	4.0	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	71.	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	50.	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: L0413854-05
MW-45M

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216 18:19		BT
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	109.	%		70-130			
Toluene-d8	103.	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	104.	%		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: L0413854-06

Date Collected: 09-DEC-2004 15:35

FD-10

Date Received : 10-DEC-2004

Sample Matrix: WATER

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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216 18.55 BT		
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	1.1	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	14.	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	3.7	ug/l	0.50				
trans-1,2-Dichloroethene	ND	ug/l	0.75				
Trichloroethene	71.	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	51.	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: L0413854-06
FD-10

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216 18:55		BT
Surrogate (s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	110.	%		70-130			
Toluene-d8	102.	%		70-130			
4-Bromofluorobenzene	103.	%		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: L0413854-07

Date Collected: 09-DEC-2004 17:40

MW-45D

Date Received : 10-DEC-2004

Sample Matrix:

WATER

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		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B				60 8260B	1216 19:31		BT
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				
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	33.	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	2.8	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: L0413854-07
 MW-45D

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	1216 19:31 BT		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	111.	%		70-130			
Toluene-d8	102.	%		70-130			
4-Bromofluorobenzene	105.	%		70-130			
Dibromofluoromethane	105.	%		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: L0413854

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-03 (WG189572-1, WG189572)					
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
Trichlorofluoromethane	92	95	3	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
trans-1,3-Dichloropropene	88	90	2	25	70-130
cis-1,3-Dichloropropene	90	88	2	25	70-130
1,1-Dichloropropene	92	91	1	25	70-130
Bromoform	82	90	9	50	70-130
1,1,2,2-Tetrachloroethane	85	89	5	25	70-130
Benzene	89	90	1	25	70-130
Toluene	89	89	0	25	70-130
Ethylbenzene	91	90	1	25	70-130
Chloromethane	81	81	0	50	70-130
Bromomethane	83	95	13	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
Methyl tert butyl ether	88	89	1	25	70-130
p/m-Xylene	91	90	1	25	70-130
o-Xylene	90	90	0	25	70-130
cis-1,2-Dichloroethene	88	84	5	25	70-130
Dibromomethane	86	88	2	25	70-130
1,2,3-Trichloropropane	88	92	4	25	70-130
Styrene	94	93	1	25	70-130
Dichlorodifluoromethane	72	70	3	50	70-130
Acetone	78	85	9	50	70-130
Carbon disulfide	87	83	5	25	70-130
2-Butanone	88	90	2	50	70-130
4-Methyl-2-pentanone	88	90	2	50	70-130
2-Hexanone	103	103	0	50	70-130
Bromochloromethane	85	86	1	25	70-130
Tetrahydrofuran	93	95	2	25	70-130
2,2-Dichloropropane	86	87	1	25	70-130
1,2-Dibromoethane	85	90	6	25	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413854

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-03 (WG189572-1, WG189572)					
1,3-Dichloropropane	88	92	4	25	70-130
1,1,1,2-Tetrachloroethane	92	93	1	25	70-130
Bromobenzene	87	90	3	25	70-130
n-Butylbenzene	91	89	2	25	70-130
sec-Butylbenzene	88	88	0	25	70-130
tert-Butylbenzene	88	87	1	25	70-130
o-Chlorotoluene	90	90	0	25	70-130
p-Chlorotoluene	90	88	2	25	70-130
1,2-Dibromo-3-chloropropane	93	90	3	50	70-130
Hexachlorobutadiene	85	87	2	25	70-130
Isopropylbenzene	94	92	2	25	70-130
p-Isopropyltoluene	91	89	2	25	70-130
Naphthalene	88	89	1	25	70-130
n-Propylbenzene	90	90	0	25	70-130
1,2,3-Trichlorobenzene	89	89	0	25	70-130
1,2,4-Trichlorobenzene	85	89	5	25	70-130
1,3,5-Trimethylbenzene	91	91	0	25	70-130
1,2,4-Trimethylbenzene	90	92	2	25	70-130
Ethyl ether	92	89	3	25	70-130
Isopropyl Ether	88	92	4	25	70-130
Ethyl-Tert-Butyl-Ether	87	86	1	25	70-130
Tertiary-Amyl Methyl Ether	84	86	2	25	70-130
1,4-Dioxane	90	92	2	50	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) 04-07 (WG189740-1, WG189740)					
Methylene chloride	94	90	4	25	70-130
1,1-Dichloroethane	98	96	2	25	70-130
Chloroform	94	90	4	25	70-130
Carbon tetrachloride	99	98	1	25	70-130
1,2-Dichloropropane	97	96	1	25	70-130
Dibromochloromethane	90	96	6	25	70-130
1,1,2-Trichloroethane	90	96	6	25	70-130
Tetrachloroethene	90	94	4	25	70-130
Chlorobenzene	94	94	0	25	70-130
Trichlorofluoromethane	102	96	6	25	70-130
1,2-Dichloroethane	100	100	0	25	70-130
1,1,1-Trichloroethane	95	95	0	25	70-130
Bromodichloromethane	93	92	1	25	70-130
trans-1,3-Dichloropropene	92	96	4	25	70-130
cis-1,3-Dichloropropene	93	94	1	25	70-130
1,1-Dichloropropene	98	92	6	25	70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413854

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 04-07 (WG189740-1, WG189740)					
Bromoform	87	92	6	50	70-130
1,1,2,2-Tetrachloroethane	86	91	6	25	70-130
Benzene	94	90	4	25	70-130
Toluene	92	92	0	25	70-130
Ethylbenzene	94	93	1	25	70-130
Chloromethane	102	87	16	50	70-130
Bromomethane	107	97	10	50	70-130
Vinyl chloride	100	92	8	25	70-130
Chloroethane	91	88	3	25	70-130
1,1-Dichloroethene	95	88	8	25	70-130
trans-1,2-Dichloroethene	97	89	9	25	70-130
Trichloroethene	94	88	7	25	70-130
1,2-Dichlorobenzene	88	89	1	25	70-130
1,3-Dichlorobenzene	89	89	0	25	70-130
1,4-Dichlorobenzene	92	90	2	25	70-130
Methyl tert butyl ether	92	95	3	25	70-130
p/m-Xylene	95	93	2	25	70-130
o-Xylene	94	93	1	25	70-130
cis-1,2-Dichloroethene	92	89	3	25	70-130
Dibromomethane	93	96	3	25	70-130
1,2,3-Trichloropropane	89	96	8	25	70-130
Styrene	96	96	0	25	70-130
Dichlorodifluoromethane	93	86	8	50	70-130
Acetone	96	104	8	50	70-130
Carbon disulfide	94	88	7	25	70-130
2-Butanone	100	113	12	50	70-130
4-Methyl-2-pentanone	103	99	4	50	70-130
2-Hexanone	112	115	3	50	70-130
Bromochloromethane	91	87	4	25	70-130
Tetrahydrofuran	104	94	10	25	70-130
2,2-Dichloropropane	95	92	3	25	70-130
1,2-Dibromoethane	92	98	6	25	70-130
1,3-Dichloropropane	91	96	5	25	70-130
1,1,1,2-Tetrachloroethane	94	95	1	25	70-130
Bromobenzene	89	88	1	25	70-130
n-Butylbenzene	93	90	3	25	70-130
sec-Butylbenzene	91	88	3	25	70-130
tert-Butylbenzene	90	86	5	25	70-130
o-Chlorotoluene	91	90	1	25	70-130
p-Chlorotoluene	91	88	3	25	70-130
1,2-Dibromo-3-chloropropane	89	99	11	50	70-130
Hexachlorobutadiene	90	88	2	25	70-130
Isopropylbenzene	96	95	1	25	70-130
p-Isopropyltoluene	91	89	2	25	70-130
Naphthalene	87	93	7	25	70-130
n-Propylbenzene	91	90	1	25	70-130
1,2,3-Trichlorobenzene	90	95	5	25	70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0413854

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 04-07 (WG189740-1, WG189740)					
1,2,4-Trichlorobenzene	88	89	1	25	70-130
1,3,5-Trimethylbenzene	91	91	0	25	70-130
1,2,4-Trimethylbenzene	92	90	2	25	70-130
Ethyl ether	97	100	3	25	70-130
Isopropyl Ether	92	91	1	25	70-130
Ethyl-Tert-Butyl-Ether	89	91	2	25	70-130
Tertiary-Amyl Methyl Ether	86	89	3	25	70-130
1,4-Dioxane	92	94	2	50	70-130
Surrogate (s)					
1,2-Dichloroethane-d4	107	108	1		70-130
Toluene-d8	101	104	3		70-130
4-Bromofluorobenzene	101	101	0		70-130
Dibromofluoromethane	104	107	3		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413854

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-03 (WG189572-3)							
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				
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				
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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413854

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
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Blank Analysis for sample(s) 01-03 (WG189572-3)						
Volatile Organics by MCP 8260B continued				60 8260B	1215 16:10 SE	

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	107.	%	70-130
Toluene-d8	103.	%	70-130
4-Bromofluorobenzene	106.	%	70-130
Dibromofluoromethane	100.	%	70-130

Blank Analysis for sample(s) 04-07 (WG189740-3)						
Volatile Organics by MCP 8260B				60 8260B	1216 17:07 BT	

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			

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413854

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 04-07 (WG189740-3)							
Volatile Organics by MCP 8260B continued				60 8260B	1216 17:07 BT		
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				
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				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0413854

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 04-07 (WG189740-3)							
Volatile Organics by MCP 8260B continued							
				60 8260B			1216 17:07 BT
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	109.	%		70-130			
Toluene-d8	104.	%		70-130			
4-Bromofluorobenzene	108.	%		70-130			
Dibromofluoromethane	103.	%		70-130			

ALPHA ANALYTICAL LABORATORIES
ADDENDUM I

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.

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: L0413854

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0413854-01A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-01B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-02A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-02B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-03A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-03B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-04A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-04B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-05A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-05B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-06A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-06B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-07A	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04
L0413854-07B	Vial HCl preserved	B	NA	1.0 C	Y	Absent	MCP-8260-04

Container Comments

Container ID	Comments
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