

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: L0503855
Address: 399 Boylston Street
6th Floor
Boston, MA 02116 Date Received: 12-APR-2005
Attn: Jeremy Picard Date Reported: 15-APR-2005
Project Number: 28047 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: James Todaro
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0503855
Date Reported: 15-APR-2005

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0503855-01	MW-205S-20050411-01	WAYLAND, MA
L0503855-02	MW-205M-20050411-01	WAYLAND, MA
L0503855-03	MW-205D-20050411-01	WAYLAND, MA
L0503855-04	MW-45D-20050411-01	WAYLAND, MA
L0503855-05	MW-45M-20050411-01	WAYLAND, MA
L0503855-06	MW-45S-20050411-01	WAYLAND, MA
L0503855-07	MW-45B-20050411-01	WAYLAND, MA
L0503855-08	TB-001-20050407-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0503855

MCP Related Narratives

Report Submission

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

Volatile Organics

L0503855-02 has elevated limits of detection due to the 2x dilution required by the elevated concentrations of target compounds in the sample.

L0503855-05 was re-analyzed on a 4x 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.

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0503855-01
MW-205S-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 17:58 SE		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	116.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	111.	%		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: L0503855-02	Date Collected: 11-APR-2005 11:20
MW-205M-20050411-01	Date Received : 12-APR-2005
Sample Matrix: WATER	Date Reported : 15-APR-2005
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0414 18:34 SE	
Methylene chloride	ND	ug/l	12.			
1,1-Dichloroethane	2.3	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	6.3	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	34.	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	160	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: L0503855-02
MW-205M-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 18:34		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	99.0	%		70-130			
4-Bromofluorobenzene	102.	%		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**

Laboratory Sample Number: L0503855-03
MW-205D-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 19:10		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	100.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	98.0	%		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: L0503855-04	Date Collected: 11-APR-2005 15:55
MW-45D-20050411-01	Date Received : 12-APR-2005
Sample Matrix: WATER	Date Reported : 15-APR-2005
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0414 19:46 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	18.	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	0.78	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: L0503855-04
MW-45D-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 19:46 SE		
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	114.	%		70-130			
Toluene-d8	100.	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	109.	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0503855-05
MW-45M-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 20:21		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	105.	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	104.	%		70-130			
Dibromofluoromethane	99.0	%		70-130			
Volatile Organics by MCP 8260B				60 8260B	0415 14:06		SE
Methyl tert butyl ether	140	ug/l		4.0			
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	112.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	103.	%		70-130			
Dibromofluoromethane	106.	%		70-130			

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

**ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0503855-06
MW-45S-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 20:57		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	108.	%		70-130			
Toluene-d8	99.0	%		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: L0503855-07	Date Collected: 11-APR-2005 16:10
MW-45B-20050411-01	Date Received : 12-APR-2005
Sample Matrix: WATER	Date Reported : 15-APR-2005
Condition of Sample: Satisfactory	Field Prep: None
Number & Type of Containers: 2-Vial	

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0414 21:32 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	54.	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	3.2	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: L0503855-07
MW-45B-20050411-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0414 21:32		SE
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	104.	%		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:	L0503855-08	Date Collected:	07-APR-2005 15:00
	TB-001-20050407-01	Date Received :	12-APR-2005
Sample Matrix:	WATER	Date Reported :	15-APR-2005
Condition of Sample:	Satisfactory	Field Prep:	None
Number & Type of Containers:	1-Vial		

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Volatile Organics by MCP 8260B				60 8260B	0414 22:08 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: L0503855-08
TB-001-20050407-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	ID ANAL
Volatile Organics by MCP 8260B continued				60 8260B	0414 22:08 SE	
Surrogate(s)	Recovery			QC Criteria		
1,2-Dichloroethane-d4	107.	%		70-130		
Toluene-d8	99.0	%		70-130		
4-Bromofluorobenzene	101.	%		70-130		
Dibromofluoromethane	103.	%		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: L0503855

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-08 (WG199222-1, WG199222-2)					
Methylene chloride	94	92	2	25	70-130
1,1-Dichloroethane	83	90	8	25	70-130
Chloroform	99	100	1	25	70-130
Carbon tetrachloride	107	105	2	25	70-130
1,2-Dichloropropane	92	92	0	25	70-130
Dibromochloromethane	86	87	1	25	70-130
1,1,2-Trichloroethane	83	84	1	25	70-130
Tetrachloroethene	95	93	2	25	70-130
Chlorobenzene	90	89	1	25	70-130
Trichlorofluoromethane	106	104	2	25	70-130
1,2-Dichloroethane	97	100	3	25	70-130
1,1,1-Trichloroethane	103	103	0	25	70-130
Bromodichloromethane	91	91	0	25	70-130
trans-1,3-Dichloropropene	84	82	2	25	70-130
cis-1,3-Dichloropropene	89	89	0	25	70-130
1,1-Dichloropropene	100	98	2	25	70-130
Bromoform	93	91	2	50	70-130
1,1,2,2-Tetrachloroethane	84	84	0	25	70-130
Benzene	97	96	1	25	70-130
Toluene	87	86	1	25	70-130
Ethylbenzene	90	88	2	25	70-130
Chloromethane	87	80	8	50	70-130
Bromomethane	81	94	15	50	70-130
Vinyl chloride	105	95	10	25	70-130
Chloroethane	91	92	1	25	70-130
1,1-Dichloroethene	97	97	0	25	70-130
trans-1,2-Dichloroethene	96	96	0	25	70-130
Trichloroethene	96	94	2	25	70-130
1,2-Dichlorobenzene	89	89	0	25	70-130
1,3-Dichlorobenzene	90	91	1	25	70-130
1,4-Dichlorobenzene	87	90	3	25	70-130
Methyl tert butyl ether	90	95	5	25	70-130
p/m-Xylene	90	86	5	25	70-130
o-Xylene	92	87	6	25	70-130
cis-1,2-Dichloroethene	93	97	4	25	70-130
Dibromomethane	93	97	4	25	70-130
1,2,3-Trichloropropane	88	94	7	25	70-130
Styrene	92	89	3	25	70-130
Dichlorodifluoromethane	87	82	6	50	70-130
Acetone	85	81	5	50	70-130
Carbon disulfide	94	91	3	25	70-130
2-Butanone	84	84	0	50	70-130
4-Methyl-2-pentanone	81	78	4	50	70-130
2-Hexanone	92	87	6	50	70-130
Bromochloromethane	101	100	1	25	70-130
Tetrahydrofuran	99	100	1	25	70-130
2,2-Dichloropropane	88	93	6	25	70-130
1,2-Dibromoethane	86	87	1	25	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0503855

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01-08 (WG199222-1, WG199222-2)					
1,3-Dichloropropane	83	86	4	25	70-130
1,1,1,2-Tetrachloroethane	89	90	1	25	70-130
Bromobenzene	95	95	0	25	70-130
n-Butylbenzene	87	87	0	25	70-130
sec-Butylbenzene	83	83	0	25	70-130
tert-Butylbenzene	89	90	1	25	70-130
o-Chlorotoluene	88	91	3	25	70-130
p-Chlorotoluene	87	87	0	25	70-130
1,2-Dibromo-3-chloropropane	80	86	7	50	70-130
Hexachlorobutadiene	89	91	2	25	70-130
Isopropylbenzene	92	89	3	25	70-130
p-Isopropyltoluene	86	86	0	25	70-130
Naphthalene	86	90	5	25	70-130
n-Propylbenzene	86	87	1	25	70-130
1,2,3-Trichlorobenzene	95	97	2	25	70-130
1,2,4-Trichlorobenzene	91	95	4	25	70-130
1,3,5-Trimethylbenzene	86	87	1	25	70-130
1,2,4-Trimethylbenzene	84	87	4	25	70-130
Ethyl ether	92	99	7	25	70-130
Isopropyl Ether	95	94	1	25	70-130
Ethyl-Tert-Butyl-Ether	90	90	0	25	70-130
Tertiary-Amyl Methyl Ether	90	90	0	25	70-130
1,4-Dioxane	87	93	7	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	105	105	0		70-130
Toluene-d8	95	99	4		70-130
4-Bromofluorobenzene	97	103	6		70-130
Dibromofluoromethane	104	109	5		70-130
Volatile Organics by MCP 8260B for sample(s) 05 (WG199222-4, WG199222-5)					
Methylene chloride	103	103	0	25	70-130
1,1-Dichloroethane	90	93	3	25	70-130
Chloroform	108	108	0	25	70-130
Carbon tetrachloride	120	116	3	25	70-130
1,2-Dichloropropane	100	100	0	25	70-130
Dibromochloromethane	94	93	1	25	70-130
1,1,2-Trichloroethane	89	92	3	25	70-130
Tetrachloroethene	106	105	1	25	70-130
Chlorobenzene	100	101	1	25	70-130
Trichlorofluoromethane	115	114	1	25	70-130
1,2-Dichloroethane	106	106	0	25	70-130
1,1,1-Trichloroethane	115	115	0	25	70-130
Bromodichloromethane	100	97	3	25	70-130
trans-1,3-Dichloropropene	91	89	2	25	70-130
cis-1,3-Dichloropropene	94	96	2	25	70-130
1,1-Dichloropropene	110	108	2	25	70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0503855

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 05 (WG199222-4, WG199222-5)					
Bromoform	97	94	3	50	70-130
1,1,2,2-Tetrachloroethane	96	93	3	25	70-130
Benzene	107	107	0	25	70-130
Toluene	100	100	0	25	70-130
Ethylbenzene	103	101	2	25	70-130
Chloromethane	108	103	5	50	70-130
Bromomethane	98	97	1	50	70-130
Vinyl chloride	116	113	3	25	70-130
Chloroethane	100	103	3	25	70-130
1,1-Dichloroethene	110	107	3	25	70-130
trans-1,2-Dichloroethene	108	106	2	25	70-130
Trichloroethene	104	104	0	25	70-130
1,2-Dichlorobenzene	104	100	4	25	70-130
1,3-Dichlorobenzene	107	103	4	25	70-130
1,4-Dichlorobenzene	103	101	2	25	70-130
Methyl tert butyl ether	87	88	1	25	70-130
p/m-Xylene	101	99	2	25	70-130
o-Xylene	104	102	2	25	70-130
cis-1,2-Dichloroethene	106	104	2	25	70-130
Dibromomethane	99	101	2	25	70-130
1,2,3-Trichloropropane	101	99	2	25	70-130
Styrene	102	101	1	25	70-130
Dichlorodifluoromethane	93	92	1	50	70-130
Acetone	92	89	3	50	70-130
Carbon disulfide	106	104	2	25	70-130
2-Butanone	81	80	1	50	70-130
4-Methyl-2-pentanone	83	78	6	50	70-130
2-Hexanone	97	94	3	50	70-130
Bromochloromethane	110	107	3	25	70-130
Tetrahydrofuran	86	87	1	25	70-130
2,2-Dichloropropane	90	95	5	25	70-130
1,2-Dibromoethane	95	94	1	25	70-130
1,3-Dichloropropane	88	92	4	25	70-130
1,1,1,2-Tetrachloroethane	102	100	2	25	70-130
Bromobenzene	115	110	4	25	70-130
n-Butylbenzene	104	98	6	25	70-130
sec-Butylbenzene	104	96	8	25	70-130
tert-Butylbenzene	102	101	1	25	70-130
o-Chlorotoluene	105	101	4	25	70-130
p-Chlorotoluene	104	99	5	25	70-130
1,2-Dibromo-3-chloropropane	86	93	8	50	70-130
Hexachlorobutadiene	100	101	1	25	70-130
Isopropylbenzene	105	102	3	25	70-130
p-Isopropyltoluene	105	99	6	25	70-130
Naphthalene	98	100	2	25	70-130
n-Propylbenzene	103	100	3	25	70-130
1,2,3-Trichlorobenzene	107	107	0	25	70-130

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0503855

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 05 (WG199222-4, WG199222-5)					
1,2,4-Trichlorobenzene	108	105	3	25	70-130
1,3,5-Trimethylbenzene	104	101	3	25	70-130
1,2,4-Trimethylbenzene	104	99	5	25	70-130
Ethyl ether	94	93	1	25	70-130
Isopropyl Ether	94	95	1	25	70-130
Ethyl-Tert-Butyl-Ether	90	91	1	25	70-130
Tertiary-Amyl Methyl Ether	88	89	1	25	70-130
1,4-Dioxane	82	84	2	50	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	103	100	3		70-130
Toluene-d8	100	99	1		70-130
4-Bromofluorobenzene	103	100	3		70-130
Dibromofluoromethane	100	100	0		70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503855

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-08 (WG199222-3)							
Volatile Organics by MCP 8260B				60 8260B	0414 17:22 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.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503855

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01-08 (WG199222-3)							
Volatile Organics by MCP 8260B continued				60 8260B	0414 17:22		SE
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	112.	%	70-130				
Toluene-d8	96.0	%	70-130				
4-Bromofluorobenzene	103.	%	70-130				
Dibromofluoromethane	106.	%	70-130				
Blank Analysis for sample(s) 05 (WG199222-6)							
Volatile Organics by MCP 8260B				60 8260B	0415 10:26		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				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503855

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05 (WG199222-6)							
Volatile Organics by MCP 8260B continued				60 8260B		0415 10:26 SE	
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				
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				

ALPHA ANALYTICAL LABORATORIES
 QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0503855

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 05 (WG199222-6)							
Volatile Organics by MCP 8260B continued				60 8260B	0415 10:26 SE		
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	104.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	102.	%		70-130			
Dibromofluoromethane	96.0	%		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.
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: L0503855

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
L0503855-01A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-01B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-02A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-02B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-03A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-03B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-04A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-04B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-05A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-05B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-06A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-06B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-07A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-07B	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04
L0503855-08A	Vial HCl preserved	A	N/A	2.2 C	Y	Absent	MCP-8260-04

Container Comments

Container ID Comments
