

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: L0504027  
Address: 399 Boylston Street  
6th Floor  
Boston, MA 02116 Date Received: 14-APR-2005  
Attn: Jeremy Picard Date Reported: 21-APR-2005  
Project Number: 28047 Delivery Method: Alpha  
Site: RAYTHEON WAYLAND

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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.

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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.

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Authorized by: James Todaro  
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0504027

Date Reported: 21-APR-2005

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ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0504027-01	MW-221M-20050413-01	WAYLAND, MA
L0504027-02	MW-217M-20050413-01	WAYLAND, MA
L0504027-03	DUP-009-20050413-01	WAYLAND, MA
L0504027-04	MW-219S-20050413-01	WAYLAND, MA
L0504027-05	DUP-010-20050413-01	WAYLAND, MA

ALPHA ANALYTICAL LABORATORIES  
NARRATIVE REPORT

Laboratory Job Number: L0504027

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Report Submission

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



**ALPHA ANALYTICAL LABORATORIES**  
**CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0504027-01  
 MW-221M-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0420 00:05		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	113.	%		70-130			
Toluene-d8	101.	%		70-130			
4-Bromofluorobenzene	101.	%		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**

Laboratory Sample Number: L0504027-02  
MW-217M-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0420 00:46		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	107.	%		70-130			
Toluene-d8	97.0	%		70-130			
4-Bromofluorobenzene	91.0	%		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:	L0504027-03	Date Collected:	13-APR-2005 00:00
	DUP-009-20050413-01	Date Received :	14-APR-2005
Sample Matrix:	WATER	Date Reported :	21-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	0420 01:26	TT
Methylene chloride	ND	ug/l	5.0			
1,1-Dichloroethane	3.9	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	2.4	ug/l	0.50			
1,2-Dichloroethane	ND	ug/l	0.50			
1,1,1-Trichloroethane	ND	ug/l	0.50			
Bromodichloromethane	ND	ug/l	0.50			
trans-1,3-Dichloropropene	ND	ug/l	0.50			
cis-1,3-Dichloropropene	ND	ug/l	0.50			
Bromoform	ND	ug/l	2.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	0.50			
Benzene	ND	ug/l	0.50			
Chloromethane	ND	ug/l	2.5			
Vinyl chloride	ND	ug/l	1.0			
Chloroethane	ND	ug/l	1.0			
1,1-Dichloroethene	0.91	ug/l	0.50			
trans-1,2-Dichloroethene	ND	ug/l	0.75			
Trichloroethene	10.	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	24.	ug/l	1.0			
cis-1,2-Dichloroethene	0.91	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: L0504027-03  
DUP-009-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0420 01:26		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	110.	%		70-130			
Toluene-d8	98.0	%		70-130			
4-Bromofluorobenzene	94.0	%		70-130			
Dibromofluoromethane	101.	%		70-130			

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



**ALPHA ANALYTICAL LABORATORIES  
CERTIFICATE OF ANALYSIS**

Laboratory Sample Number: L0504027-04  
MW-219S-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0419 18:02		RY
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	106.	%		70-130			
Toluene-d8	100.	%		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: L0504027-05	Date Collected: 13-APR-2005 00:00
DUP-010-20050413-01	Date Received : 14-APR-2005
Sample Matrix: WATER	Date Reported : 21-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	0420 02:07	TT
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: L0504027-05  
DUP-010-20050413-01

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by MCP 8260B continued				60 8260B	0420 02:07		TT
Surrogate(s)	Recovery			QC Criteria			
1,2-Dichloroethane-d4	104.	%		70-130			
Toluene-d8	94.0	%		70-130			
4-Bromofluorobenzene	94.0	%		70-130			
Dibromofluoromethane	98.0	%		70-130			

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

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0504027

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 01,03,05 (WG199684-1, WG199684-2)					
Methylene chloride	107	105	2	25	70-130
1,1-Dichloroethane	112	108	4	25	70-130
Chloroform	104	102	2	25	70-130
Carbon tetrachloride	103	99	4	25	70-130
1,2-Dichloropropane	106	103	3	25	70-130
Dibromochloromethane	94	94	0	25	70-130
1,1,2-Trichloroethane	110	109	1	25	70-130
Tetrachloroethene	106	103	3	25	70-130
Chlorobenzene	104	100	4	25	70-130
1,2-Dichloroethane	115	117	2	25	70-130
1,1,1-Trichloroethane	107	105	2	25	70-130
Bromodichloromethane	98	98	0	25	70-130
trans-1,3-Dichloropropene	101	100	1	25	70-130
cis-1,3-Dichloropropene	100	99	1	25	70-130
Bromoform	84	84	0	50	70-130
1,1,2,2-Tetrachloroethane	100	101	1	25	70-130
Benzene	109	107	2	25	70-130
Chloromethane	99	95	4	50	70-130
Vinyl chloride	112	105	6	25	70-130
Chloroethane	116	111	4	25	70-130
1,1-Dichloroethene	104	101	3	25	70-130
trans-1,2-Dichloroethene	108	105	3	25	70-130
Trichloroethene	109	106	3	25	70-130
1,2-Dichlorobenzene	101	100	1	25	70-130
1,3-Dichlorobenzene	103	100	3	25	70-130
1,4-Dichlorobenzene	101	99	2	25	70-130
Methyl tert butyl ether	95	97	2	25	70-130
cis-1,2-Dichloroethene	111	107	4	25	70-130
Dichlorodifluoromethane	78	73	7	50	70-130
1,2-Dibromoethane	106	104	2	25	70-130
1,3-Dichloropropane	106	105	1	25	70-130
1,1,1,2-Tetrachloroethane	102	100	2	25	70-130
o-Chlorotoluene	88	91	3	25	70-130
p-Chlorotoluene	102	98	4	25	70-130
Hexachlorobutadiene	89	90	1	25	70-130
1,2,4-Trichlorobenzene	88	91	3	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	109	103	6		70-130
Toluene-d8	99	93	6		70-130
4-Bromofluorobenzene	96	91	5		70-130
Dibromofluoromethane	101	98	3		70-130
Volatile Organics by MCP 8260B for sample(s) 02 (WG199714-3, WG199714-4)					
Methylene chloride	107	105	2	25	70-130
1,1-Dichloroethane	112	108	4	25	70-130
Chloroform	104	102	2	25	70-130
Carbon tetrachloride	103	99	4	25	70-130

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0504027

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 02 (WG199714-3, WG199714-4)					
1,2-Dichloropropane	106	103	3	25	70-130
Dibromochloromethane	94	94	0	25	70-130
1,1,2-Trichloroethane	110	109	1	25	70-130
Tetrachloroethene	106	103	3	25	70-130
Chlorobenzene	104	100	4	25	70-130
1,2-Dichloroethane	115	117	2	25	70-130
1,1,1-Trichloroethane	107	105	2	25	70-130
Bromodichloromethane	98	98	0	25	70-130
trans-1,3-Dichloropropene	101	100	1	25	70-130
cis-1,3-Dichloropropene	100	99	1	25	70-130
Bromoform	84	84	0	50	70-130
1,1,2,2-Tetrachloroethane	100	101	1	25	70-130
Benzene	109	107	2	25	70-130
Chloromethane	99	95	4	50	70-130
Vinyl chloride	112	105	6	25	70-130
Chloroethane	116	111	4	25	70-130
1,1-Dichloroethene	104	101	3	25	70-130
trans-1,2-Dichloroethene	108	105	3	25	70-130
Trichloroethene	109	106	3	25	70-130
1,2-Dichlorobenzene	101	100	1	25	70-130
1,3-Dichlorobenzene	103	100	3	25	70-130
1,4-Dichlorobenzene	101	99	2	25	70-130
Methyl tert butyl ether	95	97	2	25	70-130
cis-1,2-Dichloroethene	111	107	4	25	70-130
Dichlorodifluoromethane	78	73	7	50	70-130
1,2-Dibromoethane	106	104	2	25	70-130
1,3-Dichloropropane	106	105	1	25	70-130
1,1,1,2-Tetrachloroethane	102	100	2	25	70-130
o-Chlorotoluene	88	91	3	25	70-130
p-Chlorotoluene	102	98	4	25	70-130
Hexachlorobutadiene	89	90	1	25	70-130
1,2,4-Trichlorobenzene	88	91	3	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	109	103	6		70-130
Toluene-d8	99	93	6		70-130
4-Bromofluorobenzene	96	91	5		70-130
Dibromofluoromethane	101	98	3		70-130
Volatile Organics by MCP 8260B for sample(s) 04 (WG199832-3, WG199832-4)					
Methylene chloride	100	103	3	25	70-130
1,1-Dichloroethane	92	90	2	25	70-130
Chloroform	102	106	0	25	70-130
Carbon tetrachloride	114	111	7	25	70-130
1,2-Dichloropropane	103	96	4	25	70-130
Dibromochloromethane	96	94	5	25	70-130
1,1,2-Trichloroethane	95	94	1	25	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0504027

Continued

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Volatile Organics by MCP 8260B for sample(s) 04 (WG199832-3, WG199832-4)					
Tetrachloroethene	110	103	3	25	70-130
Chlorobenzene	100	99	0	25	70-130
1,2-Dichloroethane	103	106	1	25	70-130
1,1,1-Trichloroethane	115	109	3	25	70-130
Bromodichloromethane	98	98	2	25	70-130
trans-1,3-Dichloropropene	92	91	4	25	70-130
cis-1,3-Dichloropropene	95	98	1	25	70-130
Bromoform	101	95	14	50	70-130
1,1,2,2-Tetrachloroethane	96	95	6	25	70-130
Benzene	106	104	1	25	70-130
Chloromethane	85	84	15	50	70-130
Vinyl chloride	94	99	2	25	70-130
Chloroethane	90	96	5	25	70-130
1,1-Dichloroethene	100	106	10	25	70-130
trans-1,2-Dichloroethene	101	104	4	25	70-130
Trichloroethene	106	100	4	25	70-130
1,2-Dichlorobenzene	98	97	2	25	70-130
1,3-Dichlorobenzene	99	102	6	25	70-130
1,4-Dichlorobenzene	97	98	2	25	70-130
Methyl tert butyl ether	82	83	24	25	70-130
cis-1,2-Dichloroethene	99	100	3	25	70-130
Dichlorodifluoromethane	82	82	2	50	70-130
1,2-Dibromoethane	97	94	5	25	70-130
1,3-Dichloropropane	95	93	1	25	70-130
1,1,1,2-Tetrachloroethane	102	100	1	25	70-130
o-Chlorotoluene	95	98	3	25	70-130
p-Chlorotoluene	97	97	6	25	70-130
Hexachlorobutadiene	102	100	0	25	70-130
1,2,4-Trichlorobenzene	106	108	2	25	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	101	106	5		70-130
Toluene-d8	97	99	2		70-130
4-Bromofluorobenzene	97	102	5		70-130
Dibromofluoromethane	97	103	6		70-130



ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0504027

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by MCP 8260B for sample(s) 02 (L0504027-02, WG199714-2)					
Methylene chloride	113	112	1	30	70-130
1,1-Dichloroethane	112	106	6	30	70-130
Chloroform	105	102	3	30	70-130
Carbon tetrachloride	107	104	3	30	70-130
1,2-Dichloropropane	110	106	4	30	70-130
Dibromochloromethane	101	99	2	30	70-130
1,1,2-Trichloroethane	120	117	3	30	70-130
Tetrachloroethene	113	108	5	30	70-130
Chlorobenzene	105	102	3	30	70-130
1,2-Dichloroethane	126	122	3	30	70-130
1,1,1-Trichloroethane	112	108	4	30	70-130
Bromodichloromethane	104	101	3	30	70-130
trans-1,3-Dichloropropene	107	104	3	30	70-130
cis-1,3-Dichloropropene	104	102	2	30	70-130
Bromoform	92	93	1	30	70-130
1,1,2,2-Tetrachloroethane	110	111	1	30	70-130
Benzene	116	111	4	30	70-130
Chloromethane	100	95	5	30	70-130
Vinyl chloride	112	105	6	30	70-130
Chloroethane	123	116	6	30	70-130
1,1-Dichloroethene	105	100	5	30	70-130
trans-1,2-Dichloroethene	111	106	5	30	70-130
Trichloroethene	103	92	11	30	70-130
1,2-Dichlorobenzene	128	125	2	30	70-130
1,3-Dichlorobenzene	106	102	4	30	70-130
1,4-Dichlorobenzene	106	104	2	30	70-130
Methyl tert butyl ether	117	115	2	30	70-130
cis-1,2-Dichloroethene	112	108	4	30	70-130
Dichlorodifluoromethane	73	70	4	30	70-130
1,2-Dibromoethane	113	112	1	30	70-130
1,3-Dichloropropane	114	112	2	30	70-130
1,1,1,2-Tetrachloroethane	106	106	0	30	70-130
o-Chlorotoluene	103	98	5	30	70-130
p-Chlorotoluene	105	100	5	30	70-130
Hexachlorobutadiene	97	93	4	30	70-130
1,2,4-Trichlorobenzene	105	104	1	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	110	109	1		70-130
Toluene-d8	97	97	0		70-130
4-Bromofluorobenzene	91	93	2		70-130
Dibromofluoromethane	99	100	1		70-130
Volatile Organics by MCP 8260B for sample(s) 04 (L0504027-04, WG199832-2)					
Methylene chloride	102	104	2	30	70-130
1,1-Dichloroethane	97	102	5	30	70-130
Chloroform	103	106	3	30	70-130
Carbon tetrachloride	126	118	7	30	70-130

ALPHA ANALYTICAL LABORATORIES  
 QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0504027

Continued

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics by MCP 8260B for sample(s) 04 (L0504027-04, WG199832-2)					
1,2-Dichloropropane	104	101	3	30	70-130
Dibromochloromethane	98	94	4	30	70-130
1,1,2-Trichloroethane	95	90	5	30	70-130
Tetrachloroethene	106	99	7	30	70-130
Chlorobenzene	98	95	3	30	70-130
1,2-Dichloroethane	107	114	6	30	70-130
1,1,1-Trichloroethane	118	112	5	30	70-130
Bromodichloromethane	98	97	1	30	70-130
trans-1,3-Dichloropropene	90	85	6	30	70-130
cis-1,3-Dichloropropene	92	89	3	30	70-130
Bromoform	105	100	5	30	70-130
1,1,2,2-Tetrachloroethane	97	95	2	30	70-130
Benzene	104	103	1	30	70-130
Chloromethane	90	84	7	30	70-130
Vinyl chloride	98	101	3	30	70-130
Chloroethane	97	97	0	30	70-130
1,1-Dichloroethene	102	109	7	30	70-130
trans-1,2-Dichloroethene	102	109	7	30	70-130
Trichloroethene	105	104	1	30	70-130
1,2-Dichlorobenzene	96	97	1	30	70-130
1,3-Dichlorobenzene	96	97	1	30	70-130
1,4-Dichlorobenzene	94	96	2	30	70-130
Methyl tert butyl ether	92	95	3	30	70-130
cis-1,2-Dichloroethene	100	105	5	30	70-130
Dichlorodifluoromethane	76	84	10	30	70-130
1,2-Dibromoethane	98	94	4	30	70-130
1,3-Dichloropropane	92	90	2	30	70-130
1,1,1,2-Tetrachloroethane	103	98	5	30	70-130
o-Chlorotoluene	94	95	1	30	70-130
p-Chlorotoluene	93	91	2	30	70-130
Hexachlorobutadiene	94	95	1	30	70-130
1,2,4-Trichlorobenzene	103	105	2	30	70-130
Surrogate(s)					
1,2-Dichloroethane-d4	108	113	5		70-130
Toluene-d8	97	99	2		70-130
4-Bromofluorobenzene	101	103	2		70-130
Dibromofluoromethane	106	111	5		70-130

**ALPHA ANALYTICAL LABORATORIES**  
**QUALITY ASSURANCE BATCH BLANK ANALYSIS**

Laboratory Job Number: L0504027

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01,03,05 (WG199684-3)							
Volatile Organics by MCP 8260B				60 8260B	0419 16:02 TT		
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				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	108.	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				
Dibromofluoromethane	101.	%	70-130				
Blank Analysis for sample(s) 02 (WG199714-5)							
Volatile Organics by MCP 8260B				60 8260B	0419 16:02 TT		
Methylene chloride	ND	ug/l	5.0				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0504027

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 02 (WG199714-5)							
Volatile Organics by MCP 8260B continued				60 8260B	0419 16:02		TT
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				
Surrogate(s)		Recovery		QC Criteria			
1,2-Dichloroethane-d4	108.	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				
Dibromofluoromethane	101.	%	70-130				
Blank Analysis for sample(s) 04 (WG199832-5)							
Volatile Organics by MCP 8260B				60 8260B	0419 17:26		RY
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	0.75				

ALPHA ANALYTICAL LABORATORIES  
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0504027

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 04 (WG199832-5)							
Volatile Organics by MCP 8260B continued				60 8260B	0419 17:26 RY		
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				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	105.	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	97.0	%	70-130				

**ALPHA ANALYTICAL LABORATORIES  
ADDENDUM I**

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**REFERENCES**

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

**GLOSSARY OF TERMS AND SYMBOLS**

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

**LIMITATION OF LIABILITIES**

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

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

**ALPHA ANALYTICAL LABORATORIES  
LOGIN SPECIFIC INFORMATION**

Laboratory Job Number: L0504027

Were project specific reporting limits specified? YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0504027-01A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-01B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02C	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02D	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02E	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-02F	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-03A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-03B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04C	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04D	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04E	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-04F	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-05A	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04
L0504027-05B	Vial HCl preserved	B	N/A	0.3 C	Y	Absent	MCP-8260-04

**Container Comments**

Container ID    Comments



# CHAIN OF CUSTODY

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

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

### Client Information

Client: ERK  
Project Name: Former Kethren Facility  
Project Location: Weyland, MA  
Project #: Russells 28047  
Project Manager: Picard

Address: 349 Bell St. 6th Fl  
Boston, MA 02116  
Project Manager: Picard  
Project Manager: Picard

Phone: 617-646-7800  
Turn-Around Time

Fax:  Standard  RUSH (only confirmed if pre-approved)  
Date Due: 4/21 Time: \_\_\_\_\_

Email: \_\_\_\_\_

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:  
MCP

### Project Information

Project Name: Former Kethren Facility  
Project Location: Weyland, MA  
Project #: Russells 28047  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

Project Manager: Picard  
Project Manager: Picard

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials
		Date	Time		

<u>4027-1</u>	<u>MW-221M-20050413-01</u>	<u>4/13/05</u>	<u>0950</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>2</u>	<u>MW-217M-20050413-01</u>	<u>4/13/05</u>	<u>1345</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>3</u>	<u>DUP-009-20050413-01</u>	<u>4/13/05</u>	<u>2400</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>2</u>	<u>MW-217M-20050413-01-MS</u>	<u>4/13/05</u>	<u>1345</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>2</u>	<u>MW-217M-20050413-01-MS</u>	<u>4/13/05</u>	<u>1345</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>4</u>	<u>MW-249S-20050413-01</u>	<u>4/13/05</u>	<u>1630</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>5</u>	<u>DUP-D10-20050413-01</u>	<u>4/13/05</u>	<u>2400</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>4</u>	<u>MW-249S-20050413-01-MS</u>	<u>4/13/05</u>	<u>1630</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>
<u>4</u>	<u>MW-249S-20050413-01-MS</u>	<u>4/13/05</u>	<u>1630</u>	<u>GW</u>	<u>JDF</u>	<u>2</u>

### QUESTIONS ABOVE MUST BE ANSWERED FOR PRESUMPTIVE CERTAINTY

Container Type	Preservative
<u>V</u>	<u>B</u>

Finalized By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

IS YOUR PROJECT MCP?

Finalized By: [Signature]

Date/Time: 4/13/05

Received By: [Signature]

Date/Time: 4/13/05

Date Rec'd in Lab: 4/14  
Report Information - Data Deliverables  
 FAX  EMAIL  
 XADex  Add'l Deliverables

ALPHA Job #: 20504027  
Billing Information  
 Same as Client info PO #: \_\_\_\_\_

Regulatory Requirements/Report Limits

State / Fed Program MCP Criteria

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

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

### SAMPLE HANDLING

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

ANALYSIS  
CVOC, Benzene, MTBE  
8021B

Sample Specific Comments

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.