RESPONSE ACTION OUTCOME STATEMENT
UNDERGROUND STORAGE TANK OIL RELEASE
MARY LEE BURBANK SCHOOL, 266 SCHOOL STREET
CLAY PIT POND, 221 CONCORD AVENUE
BELMONT, MASSACHUSETTS
RTN 3-23441

VOLUME II OF II

by

Haley & Aldrich, Inc.
Boston, Massachusetts

Submitted to

Massachusetts Department of Environmental Protection
Boston, Massachusetts

On behalf of

Town Of Belmont
Belmont, Massachusetts

File No. 30660-000

April 2004

HALEY & ALDRICH

TABLE OF CONTENTS

VOLUME I

TABLE OF CONTENTS
(continued)

APPENDIX D

Copies of Laboratory Data Sheets – Soil Samples

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0313099
Date Received: 24-DEC-2003
Date Reported: 06-JAN-2004
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0313099-01	UST-STKPL-1	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0313099

Volatile Organics

L0313099-01 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

Semi-Volatile Organics

L0313099-01 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

The LCS, MS/MSD% recoveries for 2,4-Dinitrotoluene (98%, 121%/111%) are above the acceptance criteria for the method.

TPH-8100M

L0313099-01 was analyzed on a 25x dilution causing the Surrogate to be diluted out.

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: L0313099-01
UST-STKPL-1
Sample Matrix: SOIL

Date Collected: 23-DEC-2003 15:00
Date Received : 24-DEC-2003
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	85.	%	0.10	30	2540G		1224 16:00	LK
pH	6.9	SU	-	1	9045C		1224 18:00	LK
Flash Point	> 150	deg F	70	1	1010		1229 15:30	NT
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		1231 08:20	AT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		1231 08:20	AT
Total Metals				1	3051			
Arsenic, Total	5.8	mg/kg	0.47	1	6010B	1230 15:15	0105 12:08	RW
Barium, Total	66.	mg/kg	0.47	1	6010B	1230 15:15	0105 12:08	RW
Cadmium, Total	ND	mg/kg	0.47	1	6010B	1230 15:15	0105 12:08	RW
Chromium, Total	24.	mg/kg	0.47	1	6010B	1230 15:15	0105 12:08	RW
Lead, Total	22.	mg/kg	2.3	1	6010B	1230 15:15	0105 12:08	RW
Mercury, Total	0.12	mg/kg	0.08	1	7471A	1229 16:10	1230 13:09	DM
Selenium, Total	ND	mg/kg	0.93	1	6010B	1230 15:15	0105 12:08	RW
Silver, Total	ND	mg/kg	0.47	1	6010B	1230 15:15	0105 12:08	RW
Volatile Organics 8260 via High 5035				1	8260B		0105 12:33	BS
Methylene chloride	ND	ug/kg	2800					
1,1-Dichloroethane	ND	ug/kg	430					
Chloroform	ND	ug/kg	430					
Carbon tetrachloride	ND	ug/kg	280					
1,2-Dichloropropane	ND	ug/kg	1000					
Dibromochloromethane	ND	ug/kg	280					
1,1,2-Trichloroethane	ND	ug/kg	430					
Tetrachloroethene	ND	ug/kg	280					
Chlorobenzene	ND	ug/kg	280					
Trichlorofluoromethane	ND	ug/kg	1400					
1,2-Dichloroethane	ND	ug/kg	280					
1,1,1-Trichloroethane	ND	ug/kg	280					
Bromodichloromethane	ND	ug/kg	280					
trans-1,3-Dichloropropene	ND	ug/kg	280					
cis-1,3-Dichloropropene	ND	ug/kg	280					
1,1-Dichloropropene	ND	ug/kg	1400					
Bromoform	ND	ug/kg	1100					

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

Laboratory Sample Number: L0313099-01
UST-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via High 5035 continued				1 8260B		0105 12:33	BS
1,1,2,2-Tetrachloroethane	ND	ug/kg	280				
Benzene	ND	ug/kg	280				
Toluene	690	ug/kg	430				
Ethylbenzene	1200	ug/kg	280				
Chloromethane	ND	ug/kg	1400				
Bromomethane	ND	ug/kg	570				
Vinyl chloride	ND	ug/kg	570				
Chloroethane	ND	ug/kg	570				
1,1-Dichloroethene	ND	ug/kg	280				
trans-1,2-Dichloroethene	ND	ug/kg	430				
Trichloroethene	ND	ug/kg	280				
1,2-Dichlorobenzene	ND	ug/kg	1400				
1,3-Dichlorobenzene	ND	ug/kg	1400				
1,4-Dichlorobenzene	ND	ug/kg	1400				
Methyl tert butyl ether	ND	ug/kg	570				
p/m-Xylene	5100	ug/kg	280				
o-Xylene	2600	ug/kg	280				
cis-1,2-Dichloroethene	ND	ug/kg	280				
Dibromomethane	ND	ug/kg	2800				
1,4-Dichlorobutane	ND	ug/kg	2800				
Iodomethane	ND	ug/kg	2800				
1,2,3-Trichloropropane	ND	ug/kg	2800				
Styrene	ND	ug/kg	280				
Dichlorodifluoromethane	ND	ug/kg	2800				
Acetone	ND	ug/kg	2800				
Carbon disulfide	ND	ug/kg	2800				
2-Butanone	ND	ug/kg	2800				
Vinyl acetate	ND	ug/kg	2800				
4-Methyl-2-pentanone	ND	ug/kg	2800				
2-Hexanone	ND	ug/kg	2800				
Ethyl methacrylate	ND	ug/kg	2800				
Acrolein	ND	ug/kg	7100				
Acrylonitrile	ND	ug/kg	2800				
Bromochloromethane	ND	ug/kg	1400				
Tetrahydrofuran	ND	ug/kg	5700				
2,2-Dichloropropane	ND	ug/kg	1400				
1,2-Dibromoethane	ND	ug/kg	1400				
1,3-Dichloropropane	ND	ug/kg	1400				
1,1,1,2-Tetrachloroethane	ND	ug/kg	280				
Bromobenzene	ND	ug/kg	1400				
n-Butylbenzene	3600	ug/kg	280				
sec-Butylbenzene	1200	ug/kg	280				
tert-Butylbenzene	ND	ug/kg	1400				
o-Chlorotoluene	ND	ug/kg	1400				
p-Chlorotoluene	ND	ug/kg	1400				
1,2-Dibromo-3-chloropropane	ND	ug/kg	1400				
Hexachlorobutadiene	ND	ug/kg	1400				
Isopropylbenzene	660	ug/kg	280				
p-Isopropyltoluene	1300	ug/kg	280				

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

Laboratory Sample Number: L0313099-01
UST-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics 8260 via High 5035 continued				1	8260B		0105 12:33	BS
Naphthalene	15000	ug/kg	1400					
n-Propylbenzene	1700	ug/kg	280					
1,2,3-Trichlorobenzene	ND	ug/kg	1400					
1,2,4-Trichlorobenzene	ND	ug/kg	1400					
1,3,5-Trimethylbenzene	3700	ug/kg	1400					
1,2,4-Trimethylbenzene	14000	ug/kg	1400					
trans-1,4-Dichloro-2-butene	ND	ug/kg	1400					
Ethyl ether	ND	ug/kg	1400					
Surrogate(s)	Recovery		QC Criteria					
1,2-Dichloroethane-d4	104.	%						
Toluene-d8	97.0	%						
4-Bromofluorobenzene	89.0	%						
Dibromofluoromethane	104.	%						
SVOC's by GC/MS 8270				1	8270C	1229 10:50	0103 18:06	HL
Acenaphthene	ND	ug/kg	2900					
Benzidine	ND	ug/kg	29000					
1,2,4-Trichlorobenzene	ND	ug/kg	2900					
Hexachlorobenzene	ND	ug/kg	2900					
Bis(2-chloroethyl)ether	ND	ug/kg	2900					
1-Chloronaphthalene	ND	ug/kg	2900					
2-Chloronaphthalene	ND	ug/kg	3500					
1,2-Dichlorobenzene	ND	ug/kg	2900					
1,3-Dichlorobenzene	ND	ug/kg	2900					
1,4-Dichlorobenzene	ND	ug/kg	2900					
3,3'-Dichlorobenzidine	ND	ug/kg	29000					
2,4-Dinitrotoluene	ND	ug/kg	3500					
2,6-Dinitrotoluene	ND	ug/kg	2900					
Azobenzene	ND	ug/kg	2900					
Fluoranthene	ND	ug/kg	2900					
4-Chlorophenyl phenyl ether	ND	ug/kg	2900					
4-Bromophenyl phenyl ether	ND	ug/kg	2900					
Bis(2-chloroisopropyl)ether	ND	ug/kg	2900					
Bis(2-chloroethoxy)methane	ND	ug/kg	2900					
Hexachlorobutadiene	ND	ug/kg	5900					
Hexachlorocyclopentadiene	ND	ug/kg	5900					
Hexachloroethane	ND	ug/kg	2900					
Isophorone	ND	ug/kg	2900					
Naphthalene	11000	ug/kg	2900					
Nitrobenzene	ND	ug/kg	2900					
NDPA/DPA	ND	ug/kg	8800					
n-Nitrosodi-n-propylamine	ND	ug/kg	2900					
Bis(2-ethylhexyl)phthalate	ND	ug/kg	5900					
Butyl benzyl phthalate	ND	ug/kg	2900					
Di-n-butylphthalate	ND	ug/kg	2900					
Di-n-octylphthalate	ND	ug/kg	2900					
Diethyl phthalate	ND	ug/kg	2900					
Dimethyl phthalate	ND	ug/kg	2900					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0313099-01
UST-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 8270 continued				1	8270C	1229 10:50	0103 18:06	HL
Benzo(a)anthracene	ND	ug/kg	2900					
Benzo(a)pyrene	ND	ug/kg	2900					
Benzo(b)fluoranthene	ND	ug/kg	2900					
Benzo(k)fluoranthene	ND	ug/kg	2900					
Chrysene	3600	ug/kg	2900					
Acenaphthylene	ND	ug/kg	2900					
Anthracene	ND	ug/kg	2900					
Benzo(ghi)perylene	ND	ug/kg	2900					
Fluorene	3500	ug/kg	2900					
Phenanthrene	10000	ug/kg	2900					
Dibenzo(a,h)anthracene	ND	ug/kg	2900					
Indeno(1,2,3-cd)pyrene	ND	ug/kg	2900					
Pyrene	4700	ug/kg	2900					
Benzo(e)pyrene	ND	ug/kg	2900					
Biphenyl	ND	ug/kg	2900					
Perylene	ND	ug/kg	2900					
Aniline	ND	ug/kg	5900					
4-Chloroaniline	ND	ug/kg	2900					
1-Methylnaphthalene	23000	ug/kg	2900					
2-Nitroaniline	ND	ug/kg	2900					
3-Nitroaniline	ND	ug/kg	2900					
4-Nitroaniline	ND	ug/kg	4100					
Dibenzofuran	ND	ug/kg	2900					
a,a-Dimethylphenethylamine	ND	ug/kg	29000					
Hexachloropropene	ND	ug/kg	5900					
Nitrosodi-n-butylamine	ND	ug/kg	5900					
2-Methylnaphthalene	36000	ug/kg	4700					
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	12000					
Pentachlorobenzene	ND	ug/kg	12000					
a-Naphthylamine	ND	ug/kg	12000					
b-Naphthylamine	ND	ug/kg	12000					
Phenacetin	ND	ug/kg	5900					
Dimethoate	ND	ug/kg	12000					
4-Aminobiphenyl	ND	ug/kg	5900					
Pentachloronitrobenzene	ND	ug/kg	5900					
Isodrin	ND	ug/kg	5900					
p-Dimethylaminoazobenzene	ND	ug/kg	5900					
Chlorobenzilate	ND	ug/kg	12000					
3-Methylcholanthrene	ND	ug/kg	12000					
Ethyl Methanesulfonate	ND	ug/kg	8800					
Acetophenone	ND	ug/kg	12000					
Nitrosodipiperidine	ND	ug/kg	12000					
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	5900					
n-Nitrosodimethylamine	ND	ug/kg	29000					
2,4,6-Trichlorophenol	ND	ug/kg	2900					
p-Chloro-m-cresol	ND	ug/kg	2900					
2-Chlorophenol	ND	ug/kg	3500					
2,4-Dichlorophenol	ND	ug/kg	5900					
2,4-Dimethylphenol	ND	ug/kg	5900					

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

Laboratory Sample Number: L0313099-01
UST-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
SVOC's by GC/MS 8270 continued				1	8270C	1229 10:50	0103 18:06	HL
2-Nitrophenol	ND	ug/kg	12000					
4-Nitrophenol	ND	ug/kg	5900					
2,4-Dinitrophenol	ND	ug/kg	12000					
4,6-Dinitro-o-cresol	ND	ug/kg	12000					
Pentachlorophenol	ND	ug/kg	12000					
Phenol	ND	ug/kg	4100					
2-Methylphenol	ND	ug/kg	3500					
3-Methylphenol/4-Methylphenol	ND	ug/kg	3500					
2,4,5-Trichlorophenol	ND	ug/kg	2900					
2,6-Dichlorophenol	ND	ug/kg	5900					
Benzoic Acid	ND	ug/kg	29000					
Benzyl Alcohol	ND	ug/kg	5900					
Carbazole	ND	ug/kg	2900					
Pyridine	ND	ug/kg	29000					
2-Picoline	ND	ug/kg	12000					
Pronamide	ND	ug/kg	12000					
Methyl methanesulfonate	ND	ug/kg	12000					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	77.0	%	25-120					
Phenol-d6	91.0	%	10-120					
Nitrobenzene-d5	85.0	%	23-120					
2-Fluorobiphenyl	92.0	%	30-120					
2,4,6-Tribromophenol	44.0	%	19-120					
4-Terphenyl-d14	88.0	%	18-120					
Polychlorinated Biphenyls				1	8082	1229 11:40	1231 12:10	AK
Aroclor 1221	ND	ug/kg	294.					
Aroclor 1232	ND	ug/kg	294.					
Aroclor 1242/1016	ND	ug/kg	294.					
Aroclor 1248	ND	ug/kg	294.					
Aroclor 1254	ND	ug/kg	294.					
Aroclor 1260	ND	ug/kg	294.					
Surrogate(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	96.0	%	30-150					
Decachlorobiphenyl	74.0	%	30-150					
Hydrocarbon Scan by GC 8100M				1	8100M	1229 13:15	1231 09:28	JB
Mineral Spirits	ND	mg/kg	2900					
Gasoline	ND	mg/kg	2900					
Fuel Oil #2/Diesel	ND	mg/kg	2900					
Fuel Oil #4	ND	mg/kg	2900					
Fuel Oil #6	ND	mg/kg	2900					
Motor Oil	ND	mg/kg	2900					
Kerosene	ND	mg/kg	2900					
Transformer Oil	ND	mg/kg	2900					
Unknown Hydrocarbon	5600	mg/kg	2900					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0313099-01
UST-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M continued				1 8100M	1229 13:15	1231 09:28	JB
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	ND	%	40-140				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0313099

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0312886-15, WG159731)					
Solids, Total	88.	90.	%	2	
pH for sample(s) 01 (L0313099-01, WG159744)					
pH	6.9	7.0	SU	1	
Cyanide, Reactive for sample(s) 01 (L0313099-01, WG160061)					
Cyanide, Reactive	ND	ND	mg/kg	NC	
Sulfide, Reactive for sample(s) 01 (L0313099-01, WG160059)					
Sulfide, Reactive	ND	ND	mg/kg	NC	
Total Metals for sample(s) 01 (L0313099-01, WG160082)					
Arsenic, Total	5.8	5.9	mg/kg	2	35
Barium, Total	66.	56.	mg/kg	16	35
Cadmium, Total	ND	ND	mg/kg	NC	35
Chromium, Total	24.	21.	mg/kg	13	35
Lead, Total	22.	22.	mg/kg	0	35
Selenium, Total	ND	ND	mg/kg	NC	35
Silver, Total	ND	ND	mg/kg	NC	35
Total Metals for sample(s) 01 (L0313085-02, WG159843)					
Mercury, Total	8.6	6.8	mg/kg	23	45
Polychlorinated Biphenyls for sample(s) 01 (L0400008-02, WG159872)					
Aroclor 1221	ND	ND	ug/kg	NC	50
Aroclor 1232	ND	ND	ug/kg	NC	50
Aroclor 1242/1016	ND	ND	ug/kg	NC	50
Aroclor 1248	ND	ND	ug/kg	NC	50
Aroclor 1254	ND	ND	ug/kg	NC	50
Aroclor 1260	ND	ND	ug/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	99.0	107.	%	8	30-150
Decachlorobiphenyl	70.0	78.0	%	11	30-150
Hydrocarbon Scan by GC 8100M for sample(s) 01 (L0313108-01, WG159873)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	390	530	mg/kg	30	40

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0313099

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Hydrocarbon Scan by GC 8100M for sample(s) 01 (L0313108-01, WG159873)					
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	91.0	98.0	%	7	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313099

Parameter	% Recovery	QC Criteria
pH LCS for sample(s) 01 (WG159744)		
pH	101	
Sulfide, Reactive LCS for sample(s) 01 (WG160059)		
Sulfide, Reactive	101	
Total Metals LCS for sample(s) 01 (WG160082)		
Arsenic, Total	97	70-140
Barium, Total	87	70-140
Cadmium, Total	94	70-140
Chromium, Total	89	70-140
Lead, Total	94	70-140
Selenium, Total	97	70-140
Silver, Total	84	70-140
Total Metals LCS for sample(s) 01 (WG159843)		
Mercury, Total	99	60-140
Volatile Organics 8260 via High 5035 LCS for sample(s) 01 (WG159976)		
Chlorobenzene	97	
Benzene	104	
Toluene	99	
1,1-Dichloroethene	96	
Trichloroethene	100	
Surrogate(s)		
1,2-Dichloroethane-d4	104	
Toluene-d8	101	
4-Bromofluorobenzene	92	
Dibromofluoromethane	109	
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG159871)		
Acenaphthene	66	31-137
1,2,4-Trichlorobenzene	51	38-107
2-Chloronaphthalene	65	
1,2-Dichlorobenzene	49	
1,4-Dichlorobenzene	50	28-104
2,4-Dinitrotoluene	98	28-89
2,6-Dinitrotoluene	88	
Fluoranthene	90	
4-Chlorophenyl phenyl ether	73	
n-Nitrosodi-n-propylamine	51	41-126
Butyl benzyl phthalate	95	
Anthracene	57	
Pyrene	92	35-142
Hexachloropropene	43	
P-Chloro-M-Cresol	65	26-103
2-Chlorophenol	45	25-102
2-Nitrophenol	50	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313099

Continued

Parameter	% Recovery	QC Criteria
SVOC's by GC/MS 8270 LCS for sample(s) 01 (WG159871)		
4-Nitrophenol	81	11-114
2,4-Dinitrophenol	67	
Pentachlorophenol	82	17-109
Phenol	45	26-90
Surrogate(s)		
2-Fluorophenol	47	25-120
Phenol-d6	50	10-120
Nitrobenzene-d5	49	23-120
2-Fluorobiphenyl	59	30-120
2,4,6-Tribromophenol	36	19-120
4-Terphenyl-d14	79	18-120
Polychlorinated Biphenyls LCS for sample(s) 01 (WG159872)		
Aroclor 1242/1016	97	40-140
Aroclor 1260	90	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	97	30-150
Decachlorobiphenyl	79	30-150
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01 (WG159873)		
Petroleum Spike	103	40-140
Surrogate(s)		
o-Terphenyl	88	40-140
Total Metals SPIKE for sample(s) 01 (L0313099-01, WG160082)		
Arsenic, Total	74	70-140
Barium, Total	57	70-140
Cadmium, Total	96	70-140
Chromium, Total	0	70-140
Lead, Total	104	70-140
Selenium, Total	83	70-140
Silver, Total	92	70-140
Total Metals SPIKE for sample(s) 01 (L0313099-01, WG159843)		
Mercury, Total	105	60-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH MS/MSD ANALYSIS

Laboratory Job Number: L0313099

Parameter	MS %	MSD %	RPD	RPD Limit	MS/MSD Limits
Volatile Organics 8260 via High 5035 for sample(s) 01 (L0312886-13, WG159976)					
Chlorobenzene	100	94	6		
Benzene	98	97	2		
Toluene	100	96	4		
1,1-Dichloroethene	87	88	1		
Trichloroethene	94	95	0		
Surrogate(s)					
1,2-Dichloroethane-d4	106	101	5		
Toluene-d8	106	106	0		
4-Bromofluorobenzene	94	98	4		
Dibromofluoromethane	110	106	4		
SVOC's by GC/MS 8270 for sample(s) 01 (L0313099-01, WG159871)					
Acenaphthene	120	120	0	50	31-137
1,2,4-Trichlorobenzene	82	82	0	50	38-107
2-Chloronaphthalene	110	110	0	50	
1,2-Dichlorobenzene	68	70	3	50	
1,4-Dichlorobenzene	70	69	1	50	28-104
2,4-Dinitrotoluene	120	110	9	50	28-89
2,6-Dinitrotoluene	110	100	10	50	
Fluoranthene	140	130	7	50	
4-Chlorophenyl phenyl ether	110	100	10	50	
n-Nitrosodi-n-propylamine	85	82	4	50	41-126
Butyl benzyl phthalate	140	140	0	50	
Anthracene	79	83	5	50	
Pyrene	140	120	15	50	35-142
Hexachloropropene	54	53	2	50	
P-Chloro-M-Cresol	100	98	2	50	26-103
2-Chlorophenol	72	72	0	50	25-102
2-Nitrophenol	85	81	5	50	
4-Nitrophenol	110	98	12	50	11-114
2,4-Dinitrophenol	89	81	9	50	
Pentachlorophenol	89	81	9	50	17-109
Phenol	81	77	5	50	26-90
Surrogate(s)					
2-Fluorophenol	65	66	2		25-120
Phenol-d6	86	85	1		10-120
Nitrobenzene-d5	82	81	1		23-120
2-Fluorobiphenyl	106	101	5		30-120
2,4,6-Tribromophenol	44	46	4		19-120
4-Terphenyl-d14	111	103	7		18-120

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313099

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160061-1)								
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		1231 08:20	AT
Blank Analysis for sample(s) 01 (WG160059-1)								
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		1231 08:20	AT
Blank Analysis for sample(s) 01 (WG160082-3)								
Total Metals				1	3051			
Arsenic, Total	ND	mg/kg	0.40	1	6010B	1230 15:15	0105 12:00	RW
Barium, Total	ND	mg/kg	0.40	1	6010B	1230 15:15	0105 12:00	RW
Cadmium, Total	ND	mg/kg	0.40	1	6010B	1230 15:15	0105 12:00	RW
Chromium, Total	ND	mg/kg	0.40	1	6010B	1230 15:15	0105 12:00	RW
Lead, Total	ND	mg/kg	2.0	1	6010B	1230 15:15	0105 12:00	RW
Selenium, Total	ND	mg/kg	0.80	1	6010B	1230 15:15	0105 12:00	RW
Silver, Total	ND	mg/kg	0.40	1	6010B	1230 15:15	0105 12:00	RW
Blank Analysis for sample(s) 01 (WG159843-4)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	1	7471A	1229 16:10	1230 12:55	DM
Blank Analysis for sample(s) 01 (WG159976-6)								
Volatile Organics 8260 via High 5035				1	8260B		0105 10:11	BS
Methylene chloride	ND	ug/kg	500					
1,1-Dichloroethane	ND	ug/kg	75.					
Chloroform	ND	ug/kg	75.					
Carbon tetrachloride	ND	ug/kg	50.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	50.					
1,1,2-Trichloroethane	ND	ug/kg	75.					
Tetrachloroethene	ND	ug/kg	50.					
Chlorobenzene	ND	ug/kg	50.					
Trichlorofluoromethane	ND	ug/kg	250					
1,2-Dichloroethane	ND	ug/kg	50.					
1,1,1-Trichloroethane	ND	ug/kg	50.					
Bromodichloromethane	ND	ug/kg	50.					
trans-1,3-Dichloropropene	ND	ug/kg	50.					
cis-1,3-Dichloropropene	ND	ug/kg	50.					
1,1-Dichloropropene	ND	ug/kg	250					
Bromoform	ND	ug/kg	200					
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.					
Benzene	ND	ug/kg	50.					
Toluene	ND	ug/kg	75.					
Ethylbenzene	ND	ug/kg	50.					
Chloromethane	ND	ug/kg	250					
Bromomethane	ND	ug/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313099

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG159976-6)							
Volatile Organics 8260 via High 5035 continued				1 8260B		0105 10:11	BS
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,4-Dichlorobutane	ND	ug/kg	500				
Iodomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
Vinyl acetate	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Ethyl methacrylate	ND	ug/kg	500				
Acrolein	ND	ug/kg	1200				
Acrylonitrile	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				

Laboratory Job Number: L0313099

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG159976-6)							
Volatile Organics 8260 via High 5035 continued				1 8260B		0105 10:11	BS
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
trans-1,4-Dichloro-2-butene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	100.	%					
Toluene-d8	102.	%					
4-Bromofluorobenzene	101.	%					
Dibromofluoromethane	102.	%					
Blank Analysis for sample(s) 01 (WG159871-1)							
SVOC's by GC/MS 8270				1 8270C	1229 10:50	0101 08:26	HL
Acenaphthene	ND	ug/kg	500				
Benzidine	ND	ug/kg	5000				
1,2,4-Trichlorobenzene	ND	ug/kg	500				
Hexachlorobenzene	ND	ug/kg	500				
Bis(2-chloroethyl)ether	ND	ug/kg	500				
1-Chloronaphthalene	ND	ug/kg	500				
2-Chloronaphthalene	ND	ug/kg	600				
1,2-Dichlorobenzene	ND	ug/kg	500				
1,3-Dichlorobenzene	ND	ug/kg	500				
1,4-Dichlorobenzene	ND	ug/kg	500				
3,3'-Dichlorobenzidine	ND	ug/kg	5000				
2,4-Dinitrotoluene	ND	ug/kg	600				
2,6-Dinitrotoluene	ND	ug/kg	500				
Azobenzene	ND	ug/kg	500				
Fluoranthene	ND	ug/kg	500				
4-Chlorophenyl phenyl ether	ND	ug/kg	500				
4-Bromophenyl phenyl ether	ND	ug/kg	500				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	500				
Hexachlorobutadiene	ND	ug/kg	1000				
Hexachlorocyclopentadiene	ND	ug/kg	1000				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	500				
Naphthalene	ND	ug/kg	500				
Nitrobenzene	ND	ug/kg	500				
NDPA/DPA	ND	ug/kg	1500				
n-Nitrosodi-n-propylamine	ND	ug/kg	500				
Bis(2-ethylhexyl)phthalate	ND	ug/kg	1000				
Butyl benzyl phthalate	ND	ug/kg	500				
Di-n-butylphthalate	ND	ug/kg	500				
Di-n-octylphthalate	ND	ug/kg	500				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313099

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG159871-1)								
SVOC's by GC/MS 8270 continued				1	8270C	1229 10:50	0101 08:26	HL
Benzo(a)pyrene	ND	ug/kg	500					
Benzo(b)fluoranthene	ND	ug/kg	500					
Benzo(k)fluoranthene	ND	ug/kg	500					
Chrysene	ND	ug/kg	500					
Acenaphthylene	ND	ug/kg	500					
Anthracene	ND	ug/kg	500					
Benzo(ghi)perylene	ND	ug/kg	500					
Fluorene	ND	ug/kg	500					
Phenanthrene	ND	ug/kg	500					
Dibenzo(a,h)anthracene	ND	ug/kg	500					
Indeno(1,2,3-cd)pyrene	ND	ug/kg	500					
Pyrene	ND	ug/kg	500					
Benzo(e)pyrene	ND	ug/kg	500					
Biphenyl	ND	ug/kg	500					
Perylene	ND	ug/kg	500					
Aniline	ND	ug/kg	1000					
4-Chloroaniline	ND	ug/kg	500					
1-Methylnaphthalene	ND	ug/kg	500					
2-Nitroaniline	ND	ug/kg	500					
3-Nitroaniline	ND	ug/kg	500					
4-Nitroaniline	ND	ug/kg	700					
Dibenzofuran	ND	ug/kg	500					
a,a-Dimethylphenethylamine	ND	ug/kg	5000					
Hexachloropropene	ND	ug/kg	1000					
Nitrosodi-n-butylamine	ND	ug/kg	1000					
2-Methylnaphthalene	ND	ug/kg	800					
1,2,4,5-Tetrachlorobenzene	ND	ug/kg	2000					
Pentachlorobenzene	ND	ug/kg	2000					
a-Naphthylamine	ND	ug/kg	2000					
b-Naphthylamine	ND	ug/kg	2000					
Phenacetin	ND	ug/kg	1000					
Dimethoate	ND	ug/kg	2000					
4-Aminobiphenyl	ND	ug/kg	1000					
Pentachloronitrobenzene	ND	ug/kg	1000					
Isodrin	ND	ug/kg	1000					
p-Dimethylaminoazobenzene	ND	ug/kg	1000					
Chlorobenzilate	ND	ug/kg	2000					
3-Methylcholanthrene	ND	ug/kg	2000					
Ethyl Methanesulfonate	ND	ug/kg	1500					
Acetophenone	ND	ug/kg	2000					
Nitrosodipiperidine	ND	ug/kg	2000					
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	1000					
n-Nitrosodimethylamine	ND	ug/kg	5000					
2,4,6-Trichlorophenol	ND	ug/kg	500					
p-Chloro-m-cresol	ND	ug/kg	500					
2-Chlorophenol	ND	ug/kg	600					
2,4-Dichlorophenol	ND	ug/kg	1000					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313099

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG159871-1)								
SVOC's by GC/MS 8270 continued				1	8270C	1229 10:50	0101 08:26	HL
2,4-Dimethylphenol	ND	ug/kg	1000					
2-Nitrophenol	ND	ug/kg	2000					
4-Nitrophenol	ND	ug/kg	1000					
2,4-Dinitrophenol	ND	ug/kg	2000					
4,6-Dinitro-o-cresol	ND	ug/kg	2000					
Pentachlorophenol	ND	ug/kg	2000					
Phenol	ND	ug/kg	700					
2-Methylphenol	ND	ug/kg	600					
3-Methylphenol/4-Methylphenol	ND	ug/kg	600					
2,4,5-Trichlorophenol	ND	ug/kg	500					
2,6-Dichlorophenol	ND	ug/kg	1000					
Benzoic Acid	ND	ug/kg	5000					
Benzyl Alcohol	ND	ug/kg	1000					
Carbazole	ND	ug/kg	500					
Pyridine	ND	ug/kg	5000					
2-Picoline	ND	ug/kg	2000					
Pronamide	ND	ug/kg	2000					
Methyl methanesulfonate	ND	ug/kg	2000					
Surrogate(s)	Recovery		QC Criteria					
2-Fluorophenol	53.0	%	25-120					
Phenol-d6	59.0	%	10-120					
Nitrobenzene-d5	56.0	%	23-120					
2-Fluorobiphenyl	59.0	%	30-120					
2,4,6-Tribromophenol	32.0	%	19-120					
4-Terphenyl-d14	87.0	%	18-120					
Blank Analysis for sample(s) 01 (WG159872-1)								
Polychlorinated Biphenyls				1	8082	1229 11:40	1231 10:17	AK
Aroclor 1221	ND	ug/kg	250.					
Aroclor 1232	ND	ug/kg	250.					
Aroclor 1242/1016	ND	ug/kg	250.					
Aroclor 1248	ND	ug/kg	250.					
Aroclor 1254	ND	ug/kg	250.					
Aroclor 1260	ND	ug/kg	250.					
Surrogate(s)	Recovery		QC Criteria					
2,4,5,6-Tetrachloro-m-xylene	94.0	%	30-150					
Decachlorobiphenyl	82.0	%	30-150					
Blank Analysis for sample(s) 01 (WG159873-1)								
Hydrocarbon Scan by GC 8100M				1	8100M	1229 13:15	1230 22:43	JB
Mineral Spirits	ND	mg/kg	100					
Gasoline	ND	mg/kg	100					
Fuel Oil #2/Diesel	ND	mg/kg	100					
Fuel Oil #4	ND	mg/kg	100					
Fuel Oil #6	ND	mg/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313099

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG159873-1)							
Hydrocarbon Scan by GC 8100M continued				1 8100M	1229 13:15	1230 22:43	JB
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	84.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

ALDRICH
465 Medford St., Suite 2200, Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME BARBANK SCHOOL TANK RELEASE
H&A CONTACT MATT COOMBS

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME STANDARD
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	EPH (specify) (3)	TCLP (specify)	Reactivity Ignitability Corrosivity	(1)	(2)		Number of Containers
UST-STKPL-1	12/23/03	1500	—	SOIL	X			X			X		X	X	X		8

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) SVOCs
(2) RCRA(8)Metals
(3) By GC/FID

Sampled and Relinquished by

Sign Todd Butler
Print Todd Butler
Firm H&A
Date 12/24/03 Time 0600

Received by

Sign Marc Vacher
Print MARC VACHER
Firm ME
Date 12/24/03 Time 6.00

Relinquished by

Sign Marc Vacher
Print Marc Vacher
Firm ME A
Date 12/24/03 Time 12:00

Received by

Sign Bob Kunen
Print Bob Kunen
Firm Alpha
Date 12/24 Time 12:10

Relinquished by

Sign Bob Kunen
Print
Firm
Date 12/24/03 Time 1405

Received by

Sign
Print
Firm
Date 12-24-03 Time 1405

	LIQUID	SOLID
VOA Vial		X
Amber Glass		X
Plastic Bottle		
Preservative		X
Volume		

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled C NaOH E H_2SO_4 G Methanol
B Sample filtered D HNO_3 F HCL H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0313185
Date Received: 30-DEC-2003
Date Reported: 06-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved? 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

Laboratory Job Number: L0313185
Date Reported: 06-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0313185-01	UST-STKPL-2	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0313185

MCP Related Narratives:

Total Metals

In reference to question F, at the client's request, the samples were not analyzed for the full MCP list of compounds specified for the Method.

Extraction methods

Extraction method 3540c was used as the extraction method for the analysis of Semi-Volatile Organics and PCB.

Semi-Volatile Organics

The project-required reporting limits were not achieved for 3,3-Dichlorobenzidine.

The project-required reporting limits were not achieved for -01.

Non-MCP Related Narratives:

TPH-8100M

L0313185-01 and the associated duplicate were analyzed on a 10x dilution and have elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0313185-01
UST-STKPL-2
Sample Matrix: SOIL

Date Collected: 29-DEC-2003 18:00
Date Received : 30-DEC-2003
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 3-Amber,1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89.	%	0.10	30	2540G		1230 18:30	LK
pH	7.8	SU	-	1	9045C		1230 22:00	LK
Flash Point	> 150	deg F	70	1	1010		0105 16:30	NT
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		1231 08:20	AT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		1231 08:20	AT
Total Metals				1	3051			
Arsenic, Total	7.4	mg/kg	0.44	54	6010B	1231 13:00	0105 08:59	RW
Barium, Total	40.	mg/kg	0.44	54	6010B	1231 13:00	0105 08:59	RW
Cadmium, Total	ND	mg/kg	0.44	54	6010B	1231 13:00	0105 08:59	RW
Chromium, Total	18.	mg/kg	0.44	54	6010B	1231 13:00	0105 08:59	RW
Lead, Total	10.	mg/kg	2.2	54	6010B	1231 13:00	0105 08:59	RW
Mercury, Total	ND	mg/kg	0.06	54	7471A	1231 14:15	0105 09:59	DM
Selenium, Total	ND	mg/kg	0.89	54	6010B	1231 13:00	0105 08:59	RW
Silver, Total	ND	mg/kg	0.44	54	6010B	1231 13:00	0105 08:59	RW
Volatile Organics by MCP 8260B/5035-High				54	8260B		0101 00:11	BT
Methylene chloride	ND	ug/kg	1100					
1,1-Dichloroethane	ND	ug/kg	170					
Chloroform	ND	ug/kg	170					
Carbon tetrachloride	ND	ug/kg	110					
1,2-Dichloropropane	ND	ug/kg	390					
Dibromochloromethane	ND	ug/kg	110					
1,1,2-Trichloroethane	ND	ug/kg	170					
Tetrachloroethene	ND	ug/kg	110					
Chlorobenzene	ND	ug/kg	110					
Trichlorofluoromethane	ND	ug/kg	550					
1,2-Dichloroethane	ND	ug/kg	110					
1,1,1-Trichloroethane	ND	ug/kg	110					
Bromodichloromethane	ND	ug/kg	110					
trans-1,3-Dichloropropene	ND	ug/kg	110					
cis-1,3-Dichloropropene	ND	ug/kg	110					
1,1-Dichloropropene	ND	ug/kg	550					
Bromoform	ND	ug/kg	440					

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

Laboratory Sample Number: L0313185-01
UST-STKPL-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0101 00:11	BT
1,1,2,2-Tetrachloroethane	ND	ug/kg	110				
Benzene	ND	ug/kg	110				
Toluene	540	ug/kg	170				
Ethylbenzene	720	ug/kg	110				
Chloromethane	ND	ug/kg	550				
Bromomethane	ND	ug/kg	220				
Vinyl chloride	ND	ug/kg	220				
Chloroethane	ND	ug/kg	220				
1,1-Dichloroethene	ND	ug/kg	110				
trans-1,2-Dichloroethene	ND	ug/kg	170				
Trichloroethene	ND	ug/kg	110				
1,2-Dichlorobenzene	ND	ug/kg	550				
1,3-Dichlorobenzene	ND	ug/kg	550				
1,4-Dichlorobenzene	ND	ug/kg	550				
Methyl tert butyl ether	ND	ug/kg	220				
p/m-Xylene	3100	ug/kg	110				
o-Xylene	1800	ug/kg	110				
cis-1,2-Dichloroethene	ND	ug/kg	110				
Dibromomethane	ND	ug/kg	1100				
1,2,3-Trichloropropane	ND	ug/kg	1100				
Styrene	ND	ug/kg	110				
Dichlorodifluoromethane	ND	ug/kg	1100				
Acetone	ND	ug/kg	1100				
Carbon disulfide	ND	ug/kg	1100				
2-Butanone	ND	ug/kg	1100				
4-Methyl-2-pentanone	ND	ug/kg	1100				
2-Hexanone	ND	ug/kg	1100				
Bromochloromethane	ND	ug/kg	550				
Tetrahydrofuran	ND	ug/kg	2200				
2,2-Dichloropropane	ND	ug/kg	550				
1,2-Dibromoethane	ND	ug/kg	550				
1,3-Dichloropropane	ND	ug/kg	550				
1,1,1,2-Tetrachloroethane	ND	ug/kg	110				
Bromobenzene	ND	ug/kg	550				
n-Butylbenzene	2300	ug/kg	110				
sec-Butylbenzene	950	ug/kg	110				
tert-Butylbenzene	ND	ug/kg	550				
o-Chlorotoluene	ND	ug/kg	550				
p-Chlorotoluene	ND	ug/kg	550				
1,2-Dibromo-3-chloropropane	ND	ug/kg	550				
Hexachlorobutadiene	ND	ug/kg	550				
Isopropylbenzene	490	ug/kg	110				
p-Isopropyltoluene	920	ug/kg	110				
Naphthalene	6500	ug/kg	550				
n-Propylbenzene	1000	ug/kg	110				
1,2,3-Trichlorobenzene	ND	ug/kg	550				
1,2,4-Trichlorobenzene	ND	ug/kg	550				
1,3,5-Trimethylbenzene	2600	ug/kg	550				
1,2,4-Trimethylbenzene	8900	ug/kg	550				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0313185-01
UST-STKPL-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0101 00:11	BT
Ethyl ether	ND	ug/kg	550				
Isopropyl Ether	ND	ug/kg	440				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	440				
Tertiary-Amyl Methyl Ether	ND	ug/kg	440				
1,4-Dioxane	ND	ug/kg	55000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	99.0	%	70-130				
Toluene-d8	88.0	%	70-130				
4-Bromofluorobenzene	93.0	%	70-130				
Dibromofluoromethane	82.0	%	70-130				
Semivolatile Organics by MCP 8270C				54 8270C	1230 19:40	0103 13:34	HL
Acenaphthene	ND	ug/kg	1100				
1,2,4-Trichlorobenzene	ND	ug/kg	1100				
Hexachlorobenzene	ND	ug/kg	1100				
Bis(2-chloroethyl)ether	ND	ug/kg	1100				
2-Chloronaphthalene	ND	ug/kg	1100				
1,2-Dichlorobenzene	ND	ug/kg	1100				
1,3-Dichlorobenzene	ND	ug/kg	1100				
1,4-Dichlorobenzene	ND	ug/kg	1100				
3,3'-Dichlorobenzidine	ND	ug/kg	2200				
2,4-Dinitrotoluene	ND	ug/kg	1100				
2,6-Dinitrotoluene	ND	ug/kg	1100				
Azobenzene	ND	ug/kg	1100				
Fluoranthene	ND	ug/kg	1100				
4-Bromophenyl phenyl ether	ND	ug/kg	1100				
Bis(2-chloroisopropyl)ether	ND	ug/kg	1100				
Bis(2-chloroethoxy)methane	ND	ug/kg	1100				
Hexachlorobutadiene	ND	ug/kg	2200				
Hexachloroethane	ND	ug/kg	1100				
Isophorone	ND	ug/kg	1100				
Naphthalene	3400	ug/kg	1100				
Nitrobenzene	ND	ug/kg	1100				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	2200				
Butyl benzyl phthalate	ND	ug/kg	1100				
Di-n-butylphthalate	ND	ug/kg	1100				
Di-n-octylphthalate	ND	ug/kg	1100				
Diethyl phthalate	ND	ug/kg	1100				
Dimethyl phthalate	ND	ug/kg	1100				
Benzo(a)anthracene	1300	ug/kg	1100				
Benzo(a)pyrene	ND	ug/kg	1100				
Benzo(b)fluoranthene	ND	ug/kg	1100				
Benzo(k)fluoranthene	ND	ug/kg	1100				
Chrysene	2200	ug/kg	1100				
Acenaphthylene	ND	ug/kg	1100				
Anthracene	ND	ug/kg	1100				
Benzo(ghi)perylene	ND	ug/kg	1100				
Fluorene	1800	ug/kg	1100				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0313185-01
UST-STKPL-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by MCP 8270C continued				54 8270C	1230 19:40	0103 13:34	HL
Phenanthrene	5400	ug/kg	1100				
Dibenzo(a,h)anthracene	ND	ug/kg	1100				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	1100				
Pyrene	2400	ug/kg	1100				
Aniline	ND	ug/kg	2200				
4-Chloroaniline	ND	ug/kg	1100				
Dibenzofuran	ND	ug/kg	1100				
2-Methylnaphthalene	15000	ug/kg	1100				
Acetophenone	ND	ug/kg	4500				
2,4,6-Trichlorophenol	ND	ug/kg	1100				
2-Chlorophenol	ND	ug/kg	1300				
2,4-Dichlorophenol	ND	ug/kg	2200				
2,4-Dimethylphenol	ND	ug/kg	1100				
2-Nitrophenol	ND	ug/kg	4500				
4-Nitrophenol	ND	ug/kg	2200				
2,4-Dinitrophenol	ND	ug/kg	4500				
Pentachlorophenol	ND	ug/kg	4500				
Phenol	ND	ug/kg	1600				
2-Methylphenol	ND	ug/kg	1300				
3-Methylphenol/4-Methylphenol	ND	ug/kg	1300				
2,4,5-Trichlorophenol	ND	ug/kg	1100				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	65.0	%	30-130				
Phenol-d6	69.0	%	30-130				
Nitrobenzene-d5	77.0	%	30-130				
2-Fluorobiphenyl	74.0	%	30-130				
2,4,6-Tribromophenol	84.0	%	30-130				
4-Terphenyl-d14	74.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				54 8082	1230 19:42	0105 17:38	AK
Aroclor 1221	ND	ug/kg	112.				
Aroclor 1232	ND	ug/kg	112.				
Aroclor 1242/1016	ND	ug/kg	112.				
Aroclor 1248	ND	ug/kg	112.				
Aroclor 1254	ND	ug/kg	112.				
Aroclor 1260	ND	ug/kg	112.				
Aroclor 1262	ND	ug/kg	112.				
Aroclor 1268	ND	ug/kg	112.				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	80.0	%	30-150				
Decachlorobiphenyl	65.0	%	30-150				
Hydrocarbon Scan by GC 8100M				1 8100M	1230 19:45	0106 09:26	JB
Mineral Spirits	ND	mg/kg	2200				
Gasoline	ND	mg/kg	2200				
Fuel Oil #2/Diesel	ND	mg/kg	2200				
Fuel Oil #4	ND	mg/kg	2200				

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

Laboratory Sample Number: L0313185-01
UST-STKPL-2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M continued				1 8100M	1230 19:45	0106 09:26	JB
Fuel Oil #6	ND	mg/kg	2200				
Motor Oil	ND	mg/kg	2200				
Kerosene	ND	mg/kg	2200				
Transformer Oil	ND	mg/kg	2200				
Unknown Hydrocarbon	5200	mg/kg	2200				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	87.0	%	40-140				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0313185

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0313136-01, WG159992)					
Solids, Total	86.	86.	%	0	
pH for sample(s) 01 (L0313185-01, WG160013)					
pH	7.8	7.9	SU	1	
Cyanide, Reactive for sample(s) 01 (L0313099-01, WG160061)					
Cyanide, Reactive	ND	ND	mg/kg	NC	
Sulfide, Reactive for sample(s) 01 (L0313099-01, WG160059)					
Sulfide, Reactive	ND	ND	mg/kg	NC	
Hydrocarbon Scan by GC 8100M for sample(s) 01 (L0313185-01, WG160007)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	5200	3900	mg/kg	29	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	87.0	81.0	%	7	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313185

Parameter	% Recovery	QC Criteria
pH LCS for sample(s) 01 (WG160013)		
pH	100	
Sulfide, Reactive LCS for sample(s) 01 (WG160059)		
Sulfide, Reactive	101	
Total Metals LCS for sample(s) 01 (WG160143)		
Arsenic, Total	100	75-125
Barium, Total	88	75-125
Cadmium, Total	98	75-125
Chromium, Total	93	75-125
Lead, Total	98	75-125
Selenium, Total	104	75-125
Silver, Total	92	75-125
Total Metals LCS for sample(s) 01 (WG160101)		
Mercury, Total	99	75-125
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01 (WG160323)		
Methylene chloride	104	70-130
1,1-Dichloroethane	104	70-130
Chloroform	105	70-130
Carbon tetrachloride	109	70-130
1,2-Dichloropropane	100	70-130
Dibromochloromethane	94	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	104	70-130
Chlorobenzene	104	70-130
Trichlorofluoromethane	118	70-130
1,2-Dichloroethane	116	70-130
1,1,1-Trichloroethane	114	70-130
Bromodichloromethane	99	70-130
trans-1,3-Dichloropropene	101	70-130
cis-1,3-Dichloropropene	103	70-130
1,1-Dichloropropene	105	70-130
Bromoform	99	70-130
1,1,2,2-Tetrachloroethane	112	70-130
Benzene	103	70-130
Toluene	101	70-130
Ethylbenzene	112	70-130
Chloromethane	93	70-130
Bromomethane	104	70-130
Vinyl chloride	101	70-130
Chloroethane	108	70-130
1,1-Dichloroethene	90	70-130
trans-1,2-Dichloroethene	95	70-130
Trichloroethene	104	70-130
1,2-Dichlorobenzene	105	70-130
1,3-Dichlorobenzene	107	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313185

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High	LCS for sample(s) 01 (WG160323)	
1,4-Dichlorobenzene	102	70-130
Methyl tert butyl ether	81	70-130
p/m-Xylene	110	70-130
o-Xylene	106	70-130
cis-1,2-Dichloroethene	95	70-130
Dibromomethane	107	70-130
1,2,3-Trichloropropane	112	70-130
Styrene	107	70-130
Dichlorodifluoromethane	79	70-130
Acetone	124	70-130
Carbon disulfide	94	70-130
2-Butanone	88	70-130
4-Methyl-2-pentanone	91	70-130
2-Hexanone	95	70-130
Bromochloromethane	106	70-130
Tetrahydrofuran	96	70-130
2,2-Dichloropropane	109	70-130
1,2-Dibromoethane	101	70-130
1,3-Dichloropropane	103	70-130
1,1,1,2-Tetrachloroethane	111	70-130
Bromobenzene	103	70-130
n-Butylbenzene	110	70-130
sec-Butylbenzene	113	70-130
tert-Butylbenzene	111	70-130
o-Chlorotoluene	114	70-130
p-Chlorotoluene	111	70-130
1,2-Dibromo-3-chloropropane	110	70-130
Hexachlorobutadiene	114	70-130
Isopropylbenzene	108	70-130
p-Isopropyltoluene	111	70-130
Naphthalene	102	70-130
n-Propylbenzene	114	70-130
1,2,3-Trichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	99	70-130
1,3,5-Trimethylbenzene	113	70-130
1,2,4-Trimethylbenzene	112	70-130
Ethyl ether	99	70-130
Isopropyl Ether	90	70-130
Ethyl-Tert-Butyl-Ether	86	70-130
Tertiary-Amyl Methyl Ether	85	70-130
1,4-Dioxane	108	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	97	70-130
Dibromofluoromethane	90	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313185

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 01 (WG160000)		
Acenaphthene	78	40-140
1,2,4-Trichlorobenzene	61	40-140
Hexachlorobenzene	78	40-140
Bis(2-chloroethyl)ether	58	40-140
2-Chloronaphthalene	63	40-140
1,2-Dichlorobenzene	56	40-140
1,3-Dichlorobenzene	55	40-140
1,4-Dichlorobenzene	55	40-140
3,3'-Dichlorobenzidine	110	40-140
2,4-Dinitrotoluene	100	40-140
2,6-Dinitrotoluene	80	40-140
Azobenzene	89	40-140
Fluoranthene	88	40-140
4-Bromophenyl phenyl ether	79	40-140
Bis(2-chloroisopropyl)ether	63	40-140
Bis(2-chloroethoxy)methane	56	40-140
Hexachlorobutadiene	59	40-140
Hexachloroethane	56	40-140
Isophorone	60	40-140
Naphthalene	63	40-140
Nitrobenzene	69	40-140
Bis(2-Ethylhexyl)phthalate	97	40-140
Butyl benzyl phthalate	88	40-140
Di-n-butylphthalate	91	40-140
Di-n-octylphthalate	95	40-140
Diethyl phthalate	95	40-140
Dimethyl phthalate	87	40-140
Benzo(a)anthracene	96	40-140
Benzo(a)pyrene	95	40-140
Benzo(b)fluoranthene	99	40-140
Benzo(k)fluoranthene	100	40-140
Chrysene	93	40-140
Acenaphthylene	64	40-140
Anthracene	90	40-140
Benzo(ghi)perylene	96	40-140
Fluorene	84	40-140
Phenanthrene	91	40-140
Dibenzo(a,h)anthracene	96	40-140
Indeno(1,2,3-cd)Pyrene	96	40-140
Pyrene	86	40-140
Aniline	87	40-140
4-Chloroaniline	64	40-140
Dibenzofuran	80	40-140
2-Methylnaphthalene	59	40-140
Acetophenone	59	40-140
2,4,6-Trichlorophenol	64	30-130
2-Chlorophenol	53	30-130
2,4-Dichlorophenol	60	30-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313185

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 01 (WG160000)		
2,4-Dimethylphenol	34	30-130
2-Nitrophenol	51	30-130
4-Nitrophenol	83	30-130
2,4-Dinitrophenol	75	30-130
Pentachlorophenol	82	30-130
Phenol	54	30-130
2-Methylphenol	48	30-130
3-Methylphenol/4-Methylphenol	48	30-130
2,4,5-Trichlorophenol	66	30-130
Surrogate(s)		
2-Fluorophenol	54	30-130
Phenol-d6	54	30-130
Nitrobenzene-d5	58	30-130
2-Fluorobiphenyl	62	30-130
2,4,6-Tribromophenol	100	30-130
4-Terphenyl-d14	74	30-130
Polychlorinated Biphenyls by MCP 8082 LCS for sample(s) 01 (WG160002)		
Aroclor 1242/1016	89	40-140
Aroclor 1260	87	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	80	30-150
Decachlorobiphenyl	62	30-150
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01 (WG160007)		
Petroleum Spike	96	40-140
Surrogate(s)		
o-Terphenyl	103	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313185

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160061-1)								
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		1231 08:20	AT
Blank Analysis for sample(s) 01 (WG160059-1)								
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		1231 08:20	AT
Blank Analysis for sample(s) 01 (WG160143-1)								
Total Metals				1	3051			
Arsenic, Total	ND	mg/kg	0.40	54	6010B	1231 13:00	0105 08:40	RW
Barium, Total	ND	mg/kg	0.40	54	6010B	1231 13:00	0105 08:40	RW
Cadmium, Total	ND	mg/kg	0.40	54	6010B	1231 13:00	0105 08:40	RW
Chromium, Total	ND	mg/kg	0.40	54	6010B	1231 13:00	0105 08:40	RW
Lead, Total	ND	mg/kg	2.0	54	6010B	1231 13:00	0105 08:40	RW
Selenium, Total	ND	mg/kg	0.80	54	6010B	1231 13:00	0105 08:40	RW
Silver, Total	ND	mg/kg	0.40	54	6010B	1231 13:00	0105 08:40	RW
Blank Analysis for sample(s) 01 (WG160101-2)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	54	7471A	1231 14:15	0105 09:55	DM
Blank Analysis for sample(s) 01 (WG160323-2)								
Volatile Organics by MCP 8260B/5035-High				54	8260B		1231 23:27	BT
Methylene chloride	ND	ug/kg	500					
1,1-Dichloroethane	ND	ug/kg	75.					
Chloroform	ND	ug/kg	75.					
Carbon tetrachloride	ND	ug/kg	50.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	50.					
1,1,2-Trichloroethane	ND	ug/kg	75.					
Tetrachloroethene	ND	ug/kg	50.					
Chlorobenzene	ND	ug/kg	50.					
Trichlorofluoromethane	ND	ug/kg	250					
1,2-Dichloroethane	ND	ug/kg	50.					
1,1,1-Trichloroethane	ND	ug/kg	50.					
Bromodichloromethane	ND	ug/kg	50.					
trans-1,3-Dichloropropene	ND	ug/kg	50.					
cis-1,3-Dichloropropene	ND	ug/kg	50.					
1,1-Dichloropropene	ND	ug/kg	250					
Bromoform	ND	ug/kg	200					
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.					
Benzene	ND	ug/kg	50.					
Toluene	ND	ug/kg	75.					
Ethylbenzene	ND	ug/kg	50.					
Chloromethane	ND	ug/kg	250					
Bromomethane	ND	ug/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313185

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160323-2)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		1231 23:27	BT
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313185

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160323-2)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		1231 23:27	BT
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	97.0	%	70-130				
Toluene-d8	86.0	%	70-130				
4-Bromofluorobenzene	96.0	%	70-130				
Dibromofluoromethane	78.0	%	70-130				
Blank Analysis for sample(s) 01 (WG160000-1)							
Semivolatile Organics by MCP 8270C				54 8270C	1230 19:40	0103 12:02	HL
Acenaphthene	ND	ug/kg	1000				
1,2,4-Trichlorobenzene	ND	ug/kg	1000				
Hexachlorobenzene	ND	ug/kg	1000				
Bis(2-chloroethyl)ether	ND	ug/kg	1000				
2-Chloronaphthalene	ND	ug/kg	1000				
1,2-Dichlorobenzene	ND	ug/kg	1000				
1,3-Dichlorobenzene	ND	ug/kg	1000				
1,4-Dichlorobenzene	ND	ug/kg	1000				
3,3'-Dichlorobenzidine	ND	ug/kg	2000				
2,4-Dinitrotoluene	ND	ug/kg	1000				
2,6-Dinitrotoluene	ND	ug/kg	1000				
Azobenzene	ND	ug/kg	1000				
Fluoranthene	ND	ug/kg	1000				
4-Bromophenyl phenyl ether	ND	ug/kg	1000				
Bis(2-chloroisopropyl)ether	ND	ug/kg	1000				
Bis(2-chloroethoxy)methane	ND	ug/kg	1000				
Hexachlorobutadiene	ND	ug/kg	2000				
Hexachloroethane	ND	ug/kg	1000				
Isophorone	ND	ug/kg	1000				
Naphthalene	ND	ug/kg	1000				
Nitrobenzene	ND	ug/kg	1000				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	2000				
Butyl benzyl phthalate	ND	ug/kg	1000				
Di-n-butylphthalate	ND	ug/kg	1000				
Di-n-octylphthalate	ND	ug/kg	1000				
Diethyl phthalate	ND	ug/kg	1000				
Dimethyl phthalate	ND	ug/kg	1000				
Benzo(a)anthracene	ND	ug/kg	1000				
Benzo(a)pyrene	ND	ug/kg	1000				
Benzo(b)fluoranthene	ND	ug/kg	1000				
Benzo(k)fluoranthene	ND	ug/kg	1000				
Chrysene	ND	ug/kg	1000				
Acenaphthylene	ND	ug/kg	1000				
Anthracene	ND	ug/kg	1000				
Benzo(ghi)perylene	ND	ug/kg	1000				
Fluorene	ND	ug/kg	1000				
Phenanthrene	ND	ug/kg	1000				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313185

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160000-1)							
Semivolatile Organics by MCP 8270C continued				54 8270C	1230	19:40 0103 12:02	HL
Dibenzo(a,h)anthracene	ND	ug/kg	1000				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	1000				
Pyrene	ND	ug/kg	1000				
Aniline	ND	ug/kg	2000				
4-Chloroaniline	ND	ug/kg	1000				
Dibenzofuran	ND	ug/kg	1000				
2-Methylnaphthalene	ND	ug/kg	1000				
Acetophenone	ND	ug/kg	4000				
2,4,6-Trichlorophenol	ND	ug/kg	1000				
2-Chlorophenol	ND	ug/kg	1200				
2,4-Dichlorophenol	ND	ug/kg	2000				
2,4-Dimethylphenol	ND	ug/kg	1000				
2-Nitrophenol	ND	ug/kg	4000				
4-Nitrophenol	ND	ug/kg	2000				
2,4-Dinitrophenol	ND	ug/kg	4000				
Pentachlorophenol	ND	ug/kg	4000				
Phenol	ND	ug/kg	1400				
2-Methylphenol	ND	ug/kg	1200				
3-Methylphenol/4-Methylphenol	ND	ug/kg	1200				
2,4,5-Trichlorophenol	ND	ug/kg	1000				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	60.0	%	30-130				
Phenol-d6	60.0	%	30-130				
Nitrobenzene-d5	63.0	%	30-130				
2-Fluorobiphenyl	58.0	%	30-130				
2,4,6-Tribromophenol	89.0	%	30-130				
4-Terphenyl-d14	76.0	%	30-130				
Blank Analysis for sample(s) 01 (WG160002-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	1230	19:42 0103 23:37	AK
Aroclor 1221	ND	ug/kg	100.				
Aroclor 1232	ND	ug/kg	100.				
Aroclor 1242/1016	ND	ug/kg	100.				
Aroclor 1248	ND	ug/kg	100.				
Aroclor 1254	ND	ug/kg	100.				
Aroclor 1260	ND	ug/kg	100.				
Aroclor 1262	ND	ug/kg	100.				
Aroclor 1268	ND	ug/kg	100.				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	80.0	%	30-150				
Decachlorobiphenyl	61.0	%	30-150				
Blank Analysis for sample(s) 01 (WG160007-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	1230	19:45 0105 14:35	JB
Mineral Spirits	ND	mg/kg	200				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313185

Continued

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG160007-1)								
Hydrocarbon Scan by GC 8100M continued				1	8100M	1230 19:45	0105 14:35	JB
Gasoline	ND	mg/kg	200					
Fuel Oil #2/Diesel	ND	mg/kg	200					
Fuel Oil #4	ND	mg/kg	200					
Fuel Oil #6	ND	mg/kg	200					
Motor Oil	ND	mg/kg	200					
Kerosene	ND	mg/kg	200					
Transformer Oil	ND	mg/kg	200					
Unknown Hydrocarbon	ND	mg/kg	200					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	87.0	%	40-140					

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0313185

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
L0313185-01A	Vial MeOH preserved	A	N/A	0.8 C	Y	Absent	MCP-8260H
L0313185-01B	Vial NaHSO4 preserved	A	N/A	0.8 C	Y	Absent	MCP-8260H
L0313185-01C	Vial NaHSO4 preserved	A	N/A	0.8 C	Y	Absent	MCP-8260H
L0313185-01D	Vial NaHSO4 preserved	A	N/A	0.8 C	Y	Absent	MCP-8260H
L0313185-01E	Plastic 2oz unpreserved for Tota	A	N/A	0.8 C	Y	Absent	TS
L0313185-01F	Amber 100ml unpreserved	A	N/A	0.8 C	Y	Absent	MCP-8082, MCP-8270, TPH-8100
L0313185-01G	Amber 250ml unpreserved	A	N/A	0.8 C	Y	Absent	AG-TI, AS-TI, BA-TI, CD-TI, CR-TI, HG-T, PB-TI, PREPT, SE-TI
L0313185-01H	Amber 250ml unpreserved	A	N/A	0.8 C	Y	Absent	FLASH, PH-9045, REACTCN, REACTS

Container Comments

Container ID	Comments
L0313185-01E	This container has not been properly returned to CUSTODY! It was last assigned to THOANG for department CUSTODY on 12/30/03 18:23 .

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30660-000
PROJECT NAME Burbank School Tank Removal
H&A CONTACT Matt Coombs

LABORATORY Alpha
ADDRESS
CONTACT

DELIVERY DATE 12/30/03
TURNAROUND TIME ~~Standard~~ 3 DAYS
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides (PCBs)	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify) (1)	TCLP (specify)	Reactivity Ignitability Corrosivity	(2)	(3)		Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
VST-STKPL-2	12/29/03	1800	–	SOIL	X			X			X		X	X	X		8	Laboratory to use applicable DEP CAM methods, unless otherwise directed. (1) by GC/FID (2) SVOCs (3) RCRA(8) Metals

Sampled and Relinquished by
Sign [illegible]
Print Todd Buren
Firm H&A
Date 12/29/03 Time 2000

Received by
Sign [illegible]
Print Desmond Crawford
Firm H+A
Date 12/29/03 Time 20:30

Relinquished by
Sign [illegible]
Print Desmond Crawford
Firm H&A
Date 12/30/03 Time 15:50

Received by
Sign [illegible]
Print Bob Kuner
Firm [illegible]
Date 12/30 Time 15:[illegible]

Relinquished by
Sign [illegible]
Print Bob Kuner
Firm
Date 12/30 Time 1700

Received by
Sign [illegible]
Print
Firm
Date 12/30 Time 1700

LIQUID

Container	VOA	ABNs	MCP Metals	Pesticides	VPH	EPH	TPH	TCLP	Reactivity	(2)	(3)	
VOA Vial												
Amber Glass												
Plastic Bottle												
Preservative												
Volume												

SOLID

Container	VOA	ABNs	MCP Metals	Pesticides	VPH	EPH	TPH	TCLP	Reactivity	(2)	(3)	
VOA Vial	X											
Amber Glass							X			X	X	
Clear Glass				X					X			
Preservative												
Volume	4x40ml			8oz			4oz		8oz	8oz	8oz	

Sampling Comments
* Results expected Tuesday 6 Jan 2004

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled
B Sample filtered
C NaOH
D HNO_3
E H_2SO_4
F HCL
G Methanol
H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives
☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Laboratory Job Number: L0313184

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Date Received: 30-DEC-2003

Attn: Mr. Steve Provencal
Date Reported: 06-JAN-2004

Project Number: 30660-000
Delivery Method: Alpha

Site: BURBANK SCHOOL TANK RELEASE

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0313184-01	UST-STKPL2-S2	BELMONT, MA
L0313184-02	UST-STKPL2-S3	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0313184

TPH-8100M

Due to sample matrix interference, L0313184-01, -02, and the associated Duplicate were analyzed on a 10x dilution.

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: L0313184-01
UST-STKPL2-S2
Sample Matrix: SOIL

Date Collected: 30-DEC-2003 10:00
Date Received : 30-DEC-2003
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30	2540G		1230 19:30	LK
Hydrocarbon Scan by GC 8100M				1	8100M	1230 19:42	0106 11:49	JB
Mineral Spirits	ND	mg/kg	11000					
Gasoline	ND	mg/kg	11000					
Fuel Oil #2/Diesel	ND	mg/kg	11000					
Fuel Oil #4	ND	mg/kg	11000					
Fuel Oil #6	ND	mg/kg	11000					
Motor Oil	ND	mg/kg	11000					
Kerosene	ND	mg/kg	11000					
Transformer Oil	ND	mg/kg	11000					
Unknown Hydrocarbon	28000	mg/kg	11000					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	105.	%	40-140					

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: L0313184-02
UST-STKPL2-S3
Sample Matrix: SOIL

Date Collected: 30-DEC-2003 10:00
Date Received : 30-DEC-2003
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	88.	%	0.10	30 2540G		1230 19:30	LK
Hydrocarbon Scan by GC 8100M				1 8100M	1230 19:42	0106 10:30	JB
Mineral Spirits	ND	mg/kg	11000				
Gasoline	ND	mg/kg	11000				
Fuel Oil #2/Diesel	ND	mg/kg	11000				
Fuel Oil #4	ND	mg/kg	11000				
Fuel Oil #6	ND	mg/kg	11000				
Motor Oil	ND	mg/kg	11000				
Kerosene	ND	mg/kg	11000				
Transformer Oil	ND	mg/kg	11000				
Unknown Hydrocarbon	38000	mg/kg	11000				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	89.0	%	40-140				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0313184

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0313184-01, WG159997)					
Solids, Total	92.	88.	%	4	
Hydrocarbon Scan by GC 8100M for sample(s) 01-02 (L0313184-01, WG160004)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	28000	28000	mg/kg	0	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	105.	107.	%	2	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313184

Parameter	% Recovery	QC Criteria
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01-02 (WG160004)		
Petroleum Spike	111	40-140
Surrogate(s)		
o-Terphenyl	99	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313184

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG160004-1)								
Hydrocarbon Scan by GC 8100M				1	8100M	1230 19:42	0105 14:35	JB
Mineral Spirits	ND	mg/kg	1000					
Gasoline	ND	mg/kg	1000					
Fuel Oil #2/Diesel	ND	mg/kg	1000					
Fuel Oil #4	ND	mg/kg	1000					
Fuel Oil #6	ND	mg/kg	1000					
Motor Oil	ND	mg/kg	1000					
Kerosene	ND	mg/kg	1000					
Transformer Oil	ND	mg/kg	1000					
Unknown Hydrocarbon	ND	mg/kg	1000					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	102.	%	40-140					

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME BURBANK SCHOOL TOXIC RELEASE
H&A CONTACT MATT COMBES

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE 12/30/03
TURNAROUND TIME 3 DAYS *
PROJECT MANAGER SARI MOONEN

Sample No.	Date	Time	Depth (ft)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify) (1)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
VST-STKPL2-S2	12/30/03	1000	12 END	SOIL							X						1
VST-STKPL2-S3	12/30/03	1000	12	SOIL							X						1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) TPH BY GC/FID

Sampled and Relinquished by

Sign Todd R Butler
Print Todd Butler
Firm H&A
Date 12/30/03 Time 14:15

Received by

Sign Desmond Crawford
Print DESMOND CRAWFORD
Firm H+A
Date 12/30/03 Time 14:15

Relinquished by

Sign Desmond Crawford
Print DESMOND CRAWFORD
Firm H&A
Date 12/30/03 Time 15:50

Received by

Sign [illegible]
Print [illegible]
Firm [illegible]
Date 12/30 Time 15:50

Relinquished by

Sign [illegible]
Print
Firm
Date 12/30 Time 1700

Received by

Sign [illegible]
Print
Firm
Date 12/30 Time 1700

LIQUID	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Volume

SOLID	VOA Vial	Amber Glass	Clear Glass	Preservative	Volume
			X		80

PRESERVATION KEY

A Sample chilled
B Sample filtered
C NaOH
D HNO_3
E H_2SO_4
F HCL
G Methanol
H Water/NaHSO4 (circle)

Sampling Comments

* RESULTS EXPECTED ON TUESDAY 6 JAN 2004

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

Form 3003

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400230
Date Received: 12-JAN-2004
Date Reported: 14-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

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: L0400230
Date Reported: 14-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400230-01	HA-2 S6	BELMONT, MA
L0400230-02	HA-2 S7	BELMONT, MA
L0400230-03	TB-1	ALPHA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400230

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0400230-01
HA-2 S6
Sample Matrix: SOIL

Date Collected: 12-JAN-2004 13:40
Date Received : 12-JAN-2004
Date Reported : 14-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0112 18:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400230-01
HA-2 S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0113 10:28	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.30
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.30
C9-C10 Aromatics	ND	mg/kg	2.30
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.30
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.30
Benzene	ND	mg/kg	0.115
Toluene	ND	mg/kg	0.115
Ethylbenzene	ND	mg/kg	0.115
p/m-Xylene	ND	mg/kg	0.115
o-Xylene	ND	mg/kg	0.115
Methyl tert butyl ether	ND	mg/kg	0.230
Naphthalene	ND	mg/kg	1.15

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	117.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400230-01
HA-2 S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0112 17:00	0113 15:46	BJ

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	ND	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	80.0	%	40-140

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: L0400230-02
HA-2 S7
Sample Matrix: SOIL

Date Collected: 12-JAN-2004 13:45
Date Received : 12-JAN-2004
Date Reported : 14-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	84.	%	0.10	30 2540G		0112 18:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400230-02
HA-2 S7

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0113 11:40	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.98
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.98
C9-C10 Aromatics	ND	mg/kg	2.98
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.98
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.98
Benzene	ND	mg/kg	0.149
Toluene	ND	mg/kg	0.149
Ethylbenzene	ND	mg/kg	0.149
p/m-Xylene	ND	mg/kg	0.149
o-Xylene	ND	mg/kg	0.149
Methyl tert butyl ether	ND	mg/kg	0.298
Naphthalene	ND	mg/kg	1.49

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	116.	%	70-130
2,5-Dibromotoluene-FID	129.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Sample Number: L0400230-02
HA-2 S7

ER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
ractable Petroleum Hydrocarbons				46 98-1	0112 17:00	0113 16:31	BJ

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.9
C19-C36 Aliphatics	ND	mg/kg	11.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.9
Naphthalene	ND	mg/kg	0.595
2-Methylnaphthalene	ND	mg/kg	0.595
Acenaphthylene	ND	mg/kg	0.595
Acenaphthene	ND	mg/kg	0.595
Fluorene	ND	mg/kg	0.595
Phenanthrene	ND	mg/kg	0.595
Anthracene	ND	mg/kg	0.595
Fluoranthene	ND	mg/kg	0.595
Pyrene	ND	mg/kg	0.595
Benzo(a)anthracene	ND	mg/kg	0.595
Chrysene	ND	mg/kg	0.595
Benzo(b)fluoranthene	ND	mg/kg	0.595
Benzo(k)fluoranthene	ND	mg/kg	0.595
Benzo(a)pyrene	ND	mg/kg	0.595
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.595
Dibenzo(a,h)anthracene	ND	mg/kg	0.595
Benzo(g,h,i)perylene	ND	mg/kg	0.595

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	68.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

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: L0400230-03
TB-1
Sample Matrix: SOIL

Date Collected: 09-JAN-2004 13:00
Date Received : 12-JAN-2004
Date Reported : 14-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0113 10:49	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Yes
Methanol ratio: Not Applicable
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	123.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400230

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0400230-01, WG160840)					
Solids, Total	82.	83.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 02-03 (L0400096-01, WG160662)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	96.0	96.0	%	0	70-130
2,5-Dibromotoluene-FID	98.0	98.0	%	0	70-130
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0400206-19, WG160872)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	101.	104.	%	3	70-130
2,5-Dibromotoluene-FID	100.	104.	%	4	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-02 (L0400230-01, WG160844)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400230

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-02 (L0400230-01, WG160844)					
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	51.0	46.0	%	10	40-140
o-Terphenyl	67.0	62.0	%	8	40-140
2-Fluorobiphenyl	79.0	68.0	%	15	40-140
2-Bromonaphthalene	80.0	70.0	%	13	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400230

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 02-03 (WG160662)		
Benzene	110	70-130
Toluene	110	70-130
Ethylbenzene	111	70-130
p/m-Xylene	101	70-130
o-Xylene	112	70-130
Methyl tert butyl ether	104	70-130
Naphthalene	99	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	97	70-130
2,5-Dibromotoluene-FID	94	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG160872)		
Benzene	90	70-130
Toluene	96	70-130
Ethylbenzene	99	70-130
p/m-Xylene	99	70-130
o-Xylene	99	70-130
Methyl tert butyl ether	84	70-130
Naphthalene	98	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	108	70-130
2,5-Dibromotoluene-FID	106	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG160844)		
Naphthalene	54	40-140
Acenaphthene	59	40-140
Anthracene	81	40-140
Pyrene	89	40-140
Chrysene	94	40-140
Nonane (C9)	47	40-140
Tetradecane (C14)	61	40-140
Nonadecane (C19)	76	40-140
Eicosane (C20)	78	40-140
Octacosane (C28)	76	40-140
Surrogate(s)		
Chloro-Octadecane	68	40-140
o-Terphenyl	85	40-140
2-Fluorobiphenyl	73	40-140
2-Bromonaphthalene	76	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400230

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-03 (WG160662-6)							
Volatile Petroleum Hydrocarbons				47 98-1		0113 08:42	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	110.	%	70-130				
2,5-Dibromotoluene-FID	120.	%	70-130				
Blank Analysis for sample(s) 01 (WG160872-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0113 08:43	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	110.	%	70-130				
2,5-Dibromotoluene-FID	113.	%	70-130				
Blank Analysis for sample(s) 01-02 (WG160844-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0112 17:00	0113 13:31	BJ
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400230

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG160844-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0112 17:00	0113 13:31	BJ
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	76.0	%	40-140				
o-Terphenyl	83.0	%	40-140				
2-Fluorobiphenyl	76.0	%	40-140				
2-Bromonaphthalene	78.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400230

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
L0400230-01A	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0400230-01B	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0400230-01C	Amber 250ml unpreserved	A	N/A	2.1 C	Y	Absent	EPH-DELUX, TS
L0400230-02A	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0400230-02B	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0400230-02C	Amber 250ml unpreserved	A	N/A	2.1 C	Y	Absent	EPH-DELUX, TS
L0400230-03A	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME BELMONT SCHOOLS
H&A CONTACT S. PROVENCAL

LABORATORY ALPHA
ADDRESS WESTBORO MA
CONTACT

DELIVERY DATE 12 JAN 04
TURNAROUND TIME 7 HR
PROJECT MANAGER S. MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-2 S6	12/1/04	13:40	11-13	Soil					X	X							3
HA-2 S7	12/1/04	13:45	13-15	Soil					X	X							3
TB-1	1/09/04	13.00	—	—					X								1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

Sampled and Relinquished by
Sign
Print DAVID M. PARKER
Firm H&A
Date 12/1/04 Time 15:00

Received by
Sign
Print LEO LAJOIE
Firm ALPHA
Date 1-12-04 Time 1500

Relinquished by
Sign
Print
Firm
Date 1/12/04 Time 1600

Received by
Sign
Print KIM BUTLER
Firm
Date 1/12/04 Time 1600

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

LIQUID	TOTAL: 7
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	X X
Clear Glass	
Preservative	A6 A
Volume	40ml 250

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

DMP The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

DMP This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003 AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400291
Date Received: 13-JAN-2004
Date Reported: 20-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

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

Laboratory Job Number: L0400291
Date Reported: 20-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400291-01	HA-6(OW) S6	BELMONT, MA
L0400291-02	HA-4(OW) S6	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400291

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

Total Metals

Due to matrix interference, -01 and -02 required a 5x dilution prior to analysis for SE and Tl.

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: L0400291-01
HA-6(OW) S6
Sample Matrix: SOIL

Date Collected: 13-JAN-2004 10:45
Date Received : 13-JAN-2004
Date Reported : 20-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	77.	%	0.10	30 2540G		0113 20:00	LK
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.6	54 6010B	0114 15:30	0115 16:07	MG
Arsenic, Total	8.3	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Barium, Total	110	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Beryllium, Total	0.85	mg/kg	0.26	54 6010B	0114 15:30	0115 16:07	MG
Cadmium, Total	ND	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Chromium, Total	54.	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Lead, Total	13.	mg/kg	2.6	54 6010B	0114 15:30	0115 16:07	MG
Mercury, Total	ND	mg/kg	0.10	54 7471A	0114 12:35	0115 13:15	DM
Nickel, Total	36.	mg/kg	1.3	54 6010B	0114 15:30	0115 16:07	MG
Selenium, Total	ND	mg/kg	2.6	54 6010B	0114 15:30	0116 10:55	MG
Silver, Total	ND	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Thallium, Total	ND	mg/kg	2.6	54 6010B	0114 15:30	0116 10:55	MG
Vanadium, Total	66.	mg/kg	0.52	54 6010B	0114 15:30	0115 16:07	MG
Zinc, Total	80.	mg/kg	2.6	54 6010B	0114 15:30	0115 16:07	MG

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: L0400291-02
HA-4(OW) S6
Sample Matrix: SOIL

Date Collected: 13-JAN-2004 13:10
Date Received : 13-JAN-2004
Date Reported : 20-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0113 20:00	LK
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.5	54 6010B	0114 15:30	0115 16:11	MG
Arsenic, Total	5.7	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Barium, Total	74.	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Beryllium, Total	0.58	mg/kg	0.25	54 6010B	0114 15:30	0115 16:11	MG
Cadmium, Total	ND	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Chromium, Total	42.	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Lead, Total	14.	mg/kg	2.5	54 6010B	0114 15:30	0115 16:11	MG
Mercury, Total	ND	mg/kg	0.10	54 7471A	0114 12:35	0115 13:17	DM
Nickel, Total	30.	mg/kg	1.3	54 6010B	0114 15:30	0115 16:11	MG
Selenium, Total	ND	mg/kg	2.5	54 6010B	0114 15:30	0116 11:00	MG
Silver, Total	ND	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Thallium, Total	ND	mg/kg	2.5	54 6010B	0114 15:30	0116 11:00	MG
Vanadium, Total	50.	mg/kg	0.50	54 6010B	0114 15:30	0115 16:11	MG
Zinc, Total	67.	mg/kg	2.5	54 6010B	0114 15:30	0115 16:11	MG

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400291

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0400008-12, WG161218)					
Solids, Total	88.	87.	%	1	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400291

Parameter	% Recovery	QC Criteria
Total Metals LCS for sample(s) 01-02 (WG161027)		
Antimony, Total	85	75-125
Arsenic, Total	96	75-125
Barium, Total	88	75-125
Beryllium, Total	90	75-125
Cadmium, Total	93	75-125
Chromium, Total	93	75-125
Lead, Total	98	75-125
Nickel, Total	90	75-125
Selenium, Total	98	75-125
Silver, Total	84	75-125
Thallium, Total	94	75-125
Vanadium, Total	90	75-125
Zinc, Total	90	75-125
Total Metals LCS for sample(s) 01-02 (WG160987)		
Mercury, Total	97	75-125

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400291

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG161027-1)								
Total Metals				1	3051			
Antimony, Total	ND	mg/kg	2.0	54	6010B	0114 15:30	0115 15:20	MG
Arsenic, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Barium, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Beryllium, Total	ND	mg/kg	0.20	54	6010B	0114 15:30	0115 15:20	MG
Cadmium, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Chromium, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Lead, Total	ND	mg/kg	2.0	54	6010B	0114 15:30	0115 15:20	MG
Nickel, Total	ND	mg/kg	1.0	54	6010B	0114 15:30	0115 15:20	MG
Selenium, Total	ND	mg/kg	0.80	54	6010B	0114 15:30	0115 15:20	MG
Silver, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Thallium, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Vanadium, Total	ND	mg/kg	0.40	54	6010B	0114 15:30	0115 15:20	MG
Zinc, Total	ND	mg/kg	2.0	54	6010B	0114 15:30	0115 15:20	MG
Blank Analysis for sample(s) 01-02 (WG160987-2)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	54	7471A	0114 12:35	0115 13:12	DM

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400291

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
L0400291-01A	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI
L0400291-02A	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI

Container Comments

Container ID	Comments

ALDRICH 465 Medford St., Suite 2200, Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600

Page 1 of

H&A FILE NO. 30660-000
PROJECT NAME BELMONT SCHOOLS
H&A CONTACT S. Provencal

LABORATORY ALPHA
ADDRESS WESTBORO MA
CONTACT

DELIVERY DATE
TURNAROUND TIME 24hr
PROJECT MANAGER S. Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity			Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
HA-6(OW)S6	13JAN	10:45	12-14	SOIL			X		2	2						3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
HA-4(OW)S6	13JAN	13:10	10.0-12.0	SOIL			X		2	2						4	EPH/VPH TARGET Analytes
TRIP BLANK																1	

Sampled and Relinquished by	Received by
Sign [signature]	Sign [signature]
Print DAVID M PARKER	Print [illegible]
Firm H&A	Firm Alpha
Date 13JAN04 Time 15:10	Date 1/13/04 Time 15:10
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print	Print
Firm	Firm
Date 1/13 Time 18:45	Date 1/13 Time 18:45
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH	EPH	TPH	TCLP	RIC		
VOA Vial											
Amber Glass			X		X	X					
Plastic Bottle											
Preservative			A		A,G	A					
Volume			250		40	250					
SOLID											
VOA Vial											
Amber Glass											
Clear Glass											
Preservative											
Volume											

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled C NaOH E H_2SO_4 G Methanol
B Sample filtered D HNO_3 F HCL H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

DMP The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

DMP This Chain of Custody Record (specify) ________ includes X ________ does not include samples defined as Drinking Water Samples.

______ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ________ analyze ________ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ RC-S2 ☐ RC-GW1 ☐ RC-GW2
☒ S1 ☐ S2 ☐ S3
☐ GW1 ☒ GW2 ☒ GW3

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400286
Date Received: 13-JAN-2004
Date Reported: 15-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400286
Date Reported: 15-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400286-01	HA-6 (OW) S6	BELMONT, MA
L0400286-02	HA-4 (OW) S6	BELMONT, MA
L0400286-03	TRIP BLANK	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400286

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0400286-01
HA-6 (OW) S6
Sample Matrix: SOIL

Date Collected: 13-JAN-2004 10:45
Date Received : 13-JAN-2004
Date Reported : 15-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	77.	%	0.10	30 2540G		0113 20:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400286-01
HA-6 (OW) S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0114 10:35	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.93
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.93
C9-C10 Aromatics	ND	mg/kg	2.93
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.93
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.93
Benzene	ND	mg/kg	0.146
Toluene	ND	mg/kg	0.146
Ethylbenzene	ND	mg/kg	0.146
p/m-Xylene	ND	mg/kg	0.146
o-Xylene	ND	mg/kg	0.146
Methyl tert butyl ether	ND	mg/kg	0.293
Naphthalene	ND	mg/kg	1.46

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	121.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400286-01
HA-6 (OW) S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0113 19:00	0115 05:31	BJ

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	13.0
C19-C36 Aliphatics	ND	mg/kg	13.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	13.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	13.0
Naphthalene	ND	mg/kg	0.649
2-Methylnaphthalene	ND	mg/kg	0.649
Acenaphthylene	ND	mg/kg	0.649
Acenaphthene	ND	mg/kg	0.649
Fluorene	ND	mg/kg	0.649
Phenanthrene	ND	mg/kg	0.649
Anthracene	ND	mg/kg	0.649
Fluoranthene	ND	mg/kg	0.649
Pyrene	ND	mg/kg	0.649
Benzo(a)anthracene	ND	mg/kg	0.649
Chrysene	ND	mg/kg	0.649
Benzo(b)fluoranthene	ND	mg/kg	0.649
Benzo(k)fluoranthene	ND	mg/kg	0.649
Benzo(a)pyrene	ND	mg/kg	0.649
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.649
Dibenzo(a,h)anthracene	ND	mg/kg	0.649
Benzo(g,h,i)perylene	ND	mg/kg	0.649

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	50.0	%	40-140
o-Terphenyl	60.0	%	40-140
2-Fluorobiphenyl	60.0	%	40-140
2-Bromonaphthalene	49.0	%	40-140

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: L0400286-02
HA-4 (OW) S6
Sample Matrix: SOIL

Date Collected: 13-JAN-2004 13:10
Date Received : 13-JAN-2004
Date Reported : 15-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0113 20:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400286-02
HA-4 (OW) S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0114 11:25	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.66
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.66
C9-C10 Aromatics	ND	mg/kg	2.66
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.66
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.66
Benzene	ND	mg/kg	0.133
Toluene	ND	mg/kg	0.133
Ethylbenzene	ND	mg/kg	0.133
p/m-Xylene	ND	mg/kg	0.133
o-Xylene	ND	mg/kg	0.133
Methyl tert butyl ether	ND	mg/kg	0.266
Naphthalene	ND	mg/kg	1.33

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	124.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400286-02
HA-4 (OW) S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0113 19:00	0115 06:20	BJ

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	56.0	%	40-140
o-Terphenyl	68.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0400286-03
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 09-JAN-2004 13:00
Date Received : 13-JAN-2004
Date Reported : 15-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0114 09:44	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	117.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400286

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0400274-01, WG160952)					
Solids, Total	88.	87.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-03 (L0400096-01, WG160662)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	96.0	96.0	%	0	70-130
2,5-Dibromotoluene-FID	98.0	98.0	%	0	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-02 (L0400286-02, WG160954)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	56.0	52.0	%	7	40-140
o-Terphenyl	68.0	57.0	%	18	40-140
2-Fluorobiphenyl	75.0	62.0	%	19	40-140
2-Bromonaphthalene	67.0	57.0	%	16	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400286

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG160662)		
Benzene	110	70-130
Toluene	110	70-130
Ethylbenzene	111	70-130
p/m-Xylene	101	70-130
o-Xylene	112	70-130
Methyl tert butyl ether	104	70-130
Naphthalene	99	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	97	70-130
2,5-Dibromotoluene-FID	94	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG160954)		
Naphthalene	46	40-140
Acenaphthene	55	40-140
Anthracene	70	40-140
Pyrene	82	40-140
Chrysene	81	40-140
Nonane (C9)	46	40-140
Tetradecane (C14)	63	40-140
Nonadecane (C19)	78	40-140
Eicosane (C20)	80	40-140
Octacosane (C28)	75	40-140
Surrogate(s)		
Chloro-Octadecane	62	40-140
o-Terphenyl	75	40-140
2-Fluorobiphenyl	60	40-140
2-Bromonaphthalene	50	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400286

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG160662-7)							
Volatile Petroleum Hydrocarbons				47 98-1		0114 08:46	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	125.	%	70-130				
2,5-Dibromotoluene-FID	128.	%	70-130				
Blank Analysis for sample(s) 01-02 (WG160954-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0113 19:00	0115 03:04	BJ
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	62.0	%	40-140				
o-Terphenyl	68.0	%	40-140				
2-Fluorobiphenyl	68.0	%	40-140				
2-Bromonaphthalene	58.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400286

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
L0400286-01A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	VPH-DELUX
L0400286-01B	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	VPH-DELUX
L0400286-01C	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	EPH-DELUX, TS
L0400286-01D	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI
L0400286-02A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	VPH-DELUX
L0400286-02B	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	VPH-DELUX
L0400286-02C	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	EPH-DELUX, TS
L0400286-02D	Amber 250ml unpreserved	A	N/A	1.3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI
L0400286-03A	Vial MeOH preserved	A	N/A	1.3 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600
Page 1 of

H&A FILE NO. 30660-000
PROJECT NAME BELMONT SCHOOLS
H&A CONTACT S Provencal

LABORATORY ALPHA
ADDRESS WESTBORO MA
CONTACT

DELIVERY DATE
TURNAROUND TIME 24hr
PROJECT MANAGER S. Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Fine Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-6(OW)36	13JAN	10:45	12-14	SOIL			X		2	2							4
HA-4(OW)36	13JAN	13:10	10.0-12.0	SOIL			X		2	2							4
TRIP BLANK																	1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH TARGET Analytes

Sampled and Relinquished by	Received by
Sign	Sign
Print DAVID M FALLON	Print
Firm H&A	Firm
Date 13JAN04 Time 15:10	Date 1/13/04 Time 15:10
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 1/13 Time 18:45	Date 1/13 Time 18:45
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID												
VOA Vial												
Amber Glass			X		X	X						
Plastic Bottle												
Preservative			A		A6	A						
Volume			250		10	250						

SOLID												
VOA Vial												
Amber Glass												
Clear Glass												
Preservative												
Volume												

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

DMF The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

DMF This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☒ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☒ GW2
- ☒ GW3

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400457
Date Received: 20-JAN-2004
Date Reported: 22-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400457
Date Reported: 22-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400457-01	HA-5 (OW) S3	BELMONT, MA
L0400457-02	TRIP BLANK	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400457

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0400457-01
HA-5 (OW) S3
Sample Matrix: SOIL

Date Collected: 20-JAN-2004 09:30
Date Received : 20-JAN-2004
Date Reported : 22-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0121 09:00	ST

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400457-01
HA-5 (OW) S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0121 10:22	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.38
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.38
C9-C10 Aromatics	ND	mg/kg	3.38
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.38
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.38
Benzene	ND	mg/kg	0.169
Toluene	ND	mg/kg	0.169
Ethylbenzene	ND	mg/kg	0.169
p/m-Xylene	ND	mg/kg	0.169
o-Xylene	ND	mg/kg	0.169
Methyl tert butyl ether	ND	mg/kg	0.338
Naphthalene	ND	mg/kg	1.69

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	106.	%	70-130
2,5-Dibromotoluene-FID	125.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400457-01
HA-5 (OW) S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0120 20:25	0122 13:03	BJ

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	60.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

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: L0400457-02
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 09-JAN-2004 13:00
Date Received : 20-JAN-2004
Date Reported : 22-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0121 09:31	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	103.	%	70-130
2,5-Dibromotoluene-FID	121.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400457

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0400456-01, WG161340)					
Solids, Total	82.	82.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-02 (L0400373-01, WG161155)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	110.	108.	%	2	70-130
2,5-Dibromotoluene-FID	127.	123.	%	3	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0400456-01, WG161344)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	59.0	39.0	%	41	40-140
o-Terphenyl	63.0	57.0	%	10	40-140
2-Fluorobiphenyl	79.0	77.0	%	3	40-140
2-Bromonaphthalene	80.0	79.0	%	1	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400457

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG161155)		
Benzene	107	70-130
Toluene	98	70-130
Ethylbenzene	109	70-130
p/m-Xylene	103	70-130
o-Xylene	100	70-130
Methyl tert butyl ether	97	70-130
Naphthalene	108	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	105	70-130
2,5-Dibromotoluene-FID	121	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG161344)		
Naphthalene	47	40-140
Acenaphthene	56	40-140
Anthracene	73	40-140
Pyrene	81	40-140
Chrysene	85	40-140
Nonane (C9)	50	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	80	40-140
Eicosane (C20)	82	40-140
Octacosane (C28)	80	40-140
Surrogate(s)		
Chloro-Octadecane	64	40-140
o-Terphenyl	77	40-140
2-Fluorobiphenyl	71	40-140
2-Bromonaphthalene	73	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400457

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG161155-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0121 08:41	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	95.0	%	70-130				
2,5-Dibromotoluene-FID	109.	%	70-130				
Blank Analysis for sample(s) 01 (WG161344-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0120 20:25	0122 10:03	BJ
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	52.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	66.0	%	40-140				
2-Bromonaphthalene	67.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400457

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
L0400457-01A	Vial MeOH preserved	A	N/A	3 C	Y	Absent	VPH-DELUX
L0400457-01B	Vial MeOH preserved	A	N/A	3 C	Y	Absent	VPH-DELUX
L0400457-01C	Amber 250ml unpreserved	A	N/A	3 C	Y	Absent	EPH-DELUX, TS
L0400457-01D	Amber 250ml unpreserved	A	N/A	3 C	Y	Absent	EPH-DELUX, TS
L0400457-02A	Vial MeOH preserved	A	N/A	3 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments
L0400457-01A	Temp. probe, Temp. blank frozen.
L0400457-01B	Temp. probe, Temp. blank frozen.
L0400457-01C	Temp. probe, Temp. blank frozen.
L0400457-01D	Temp. probe, Temp. blank frozen.
L0400457-02A	Temp. probe, Temp. blank frozen.

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

Page of

H&A FILE NO.	30660-000	LABORATORY	Alpha
PROJECT NAME	Belmont Schools	ADDRESS	Westboro, MA
H&A CONTACT	S. Provencal	CONTACT	
DELIVERY DATE			
TURNAROUND TIME	24 Hr		
PROJECT MANAGER	J. Mooney		

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH FullSuite C-ranges only	EPH FullSuite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-S(aw) SS	1/20/04	0930	6-8'	Soil			X		2	2							4
TRIP BLANK	1/9/04	1300	—	—													1
																	5 TOTAL

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH and target Analytes

MCP METALS

TRIP BLANK

Sampled and Relinquished by	Received by
Sign	Sign
Print Matthew Olson	Print
Firm H&A	Firm
Date 1/20/04 Time 15:30	Date 1/20/04 Time 1700
Relinquished by	**Received by**
Sign	Sign
Print	Print D. Ladebauche
Firm	Firm Alpha
Date 1/20/04 Time 1845	Date 1/20/04 Time 1845
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	SOLID
VOA Vial	VOA Vial
Amber Glass	Amber Glass
Plastic Bottle	Clear Glass
Preservative	Preservative
Volume	Volume

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MJD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MJD This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BELMONT SCHOOLS

Laboratory Job Number: L0400456

Date Received: 20-JAN-2004

Date Reported: 23-JAN-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400456
Date Reported: 23-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400456-01	HA-1 (OW) S5	BELMONT, MA
L0400456-02	HA-3 (OW) S4	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400456

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0400456-01
HA-1 (OW) S5
Sample Matrix: SOIL

Date Collected: 19-JAN-2004 11:00
Date Received : 20-JAN-2004
Date Reported : 23-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0121 09:00	ST

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400456-01
HA-1 (OW) S5

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0121 11:12	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.00
C9-C10 Aromatics	ND	mg/kg	3.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.00
Benzene	ND	mg/kg	0.150
Toluene	ND	mg/kg	0.150
Ethylbenzene	ND	mg/kg	0.150
p/m-Xylene	ND	mg/kg	0.150
o-Xylene	ND	mg/kg	0.150
Methyl tert butyl ether	ND	mg/kg	0.300
Naphthalene	ND	mg/kg	1.50

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	103.	%	70-130
2,5-Dibromotoluene-FID	123.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400456-01
HA-1 (OW) S5

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0120 20:25	0122 10:46	BJ

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	ND	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	59.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	80.0	%	40-140

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: L0400456-02
HA-3 (OW) S4
Sample Matrix: SOIL

Date Collected: 19-JAN-2004 14:00
Date Received : 20-JAN-2004
Date Reported : 23-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	77.	%	0.10	30 2540G		0121 09:00	ST

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400456-02
HA-3 (OW) S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0121 12:03	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.04
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.04
C9-C10 Aromatics	ND	mg/kg	3.04
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.04
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.04
Benzene	ND	mg/kg	0.152
Toluene	ND	mg/kg	0.152
Ethylbenzene	ND	mg/kg	0.152
p/m-Xylene	ND	mg/kg	0.152
o-Xylene	ND	mg/kg	0.152
Methyl tert butyl ether	ND	mg/kg	0.304
Naphthalene	ND	mg/kg	1.52

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	102.	%	70-130
2,5-Dibromotoluene-FID	124.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400456-02
HA-3 (OW) S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0122 15:10	0123 10:10	BJ

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	13.0
C19-C36 Aliphatics	ND	mg/kg	13.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	13.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	13.0
Naphthalene	ND	mg/kg	0.649
2-Methylnaphthalene	ND	mg/kg	0.649
Acenaphthylene	ND	mg/kg	0.649
Acenaphthene	ND	mg/kg	0.649
Fluorene	ND	mg/kg	0.649
Phenanthrene	ND	mg/kg	0.649
Anthracene	ND	mg/kg	0.649
Fluoranthene	ND	mg/kg	0.649
Pyrene	ND	mg/kg	0.649
Benzo(a)anthracene	ND	mg/kg	0.649
Chrysene	ND	mg/kg	0.649
Benzo(b)fluoranthene	ND	mg/kg	0.649
Benzo(k)fluoranthene	ND	mg/kg	0.649
Benzo(a)pyrene	ND	mg/kg	0.649
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.649
Dibenzo(a,h)anthracene	ND	mg/kg	0.649
Benzo(g,h,i)perylene	ND	mg/kg	0.649

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	55.0	%	40-140
o-Terphenyl	74.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400456

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0400456-01, WG161340)					
Solids, Total	82.	82.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-02 (L0400373-01, WG161155)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	110.	108.	%	2	70-130
2,5-Dibromotoluene-FID	127.	123.	%	3	70-130
Extractable Petroleum Hydrocarbons for sample(s) 02 (L0400456-02, WG161442)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	55.0	49.0	%	12	40-140
o-Terphenyl	74.0	61.0	%	19	40-140
2-Fluorobiphenyl	75.0	70.0	%	7	40-140
2-Bromonaphthalene	72.0	44.0	%	48	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400456

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0400456-01, WG161344)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	59.0	39.0	%	41	40-140
o-Terphenyl	63.0	57.0	%	10	40-140
2-Fluorobiphenyl	79.0	77.0	%	3	40-140
2-Bromonaphthalene	80.0	79.0	%	1	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400456

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG161155)		
Benzene	107	70-130
Toluene	98	70-130
Ethylbenzene	109	70-130
p/m-Xylene	103	70-130
o-Xylene	100	70-130
Methyl tert butyl ether	97	70-130
Naphthalene	108	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	105	70-130
2,5-Dibromotoluene-FID	121	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 02 (WG161442)		
Naphthalene	57	40-140
Acenaphthene	64	40-140
Anthracene	72	40-140
Pyrene	80	40-140
Chrysene	82	40-140
Nonane (C9)	52	40-140
Tetradecane (C14)	68	40-140
Nonadecane (C19)	82	40-140
Eicosane (C20)	85	40-140
Octacosane (C28)	81	40-140
Surrogate(s)		
Chloro-Octadecane	63	40-140
o-Terphenyl	78	40-140
2-Fluorobiphenyl	75	40-140
2-Bromonaphthalene	74	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG161344)		
Naphthalene	47	40-140
Acenaphthene	56	40-140
Anthracene	73	40-140
Pyrene	81	40-140
Chrysene	85	40-140
Nonane (C9)	50	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	80	40-140
Eicosane (C20)	82	40-140
Octacosane (C28)	80	40-140
Surrogate(s)		
Chloro-Octadecane	64	40-140
o-Terphenyl	77	40-140
2-Fluorobiphenyl	71	40-140
2-Bromonaphthalene	73	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400456

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG161155-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0121 08:41	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	95.0	%	70-130				
2,5-Dibromotoluene-FID	109.	%	70-130				
Blank Analysis for sample(s) 02 (WG161442-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0122 12:45	0123 08:32	BJ
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	50.0	%	40-140				
o-Terphenyl	69.0	%	40-140				
2-Fluorobiphenyl	73.0	%	40-140				
2-Bromonaphthalene	69.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400456

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG161344-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0120 20:25	0122 10:03	BJ
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	52.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	66.0	%	40-140				
2-Bromonaphthalene	67.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400456

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
L0400456-01B	Amber 250ml unpreserved	A	NA	3 C	Y	Absent	EPH-DELUX, TS
L0400456-01C	Vial MeOH preserved	A	NA	3 C	Y	Absent	VPH-DELUX
L0400456-01D	Vial MeOH preserved	A	NA	3 C	Y	Absent	VPH-DELUX
L0400456-02A	Amber 250ml unpreserved	A	NA	3 C	Y	Absent	VPH-DELUX
L0400456-02B	Amber 250ml unpreserved	A	NA	3 C	Y	Absent	EPH-DELUX, TS
L0400456-02C	Vial MeOH preserved	A	NA	3 C	Y	Absent	VPH-DELUX
L0400456-02D	Vial MeOH preserved	A	NA	3 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments
L0400456-01B	Temp. Probe, Temp. Blank frozen.
L0400456-01C	Temp. Probe, Temp. Blank frozen.
L0400456-01D	Temp. Probe, Temp. Blank frozen.
L0400456-02A	Temp. Probe, Temp. Blank frozen.
L0400456-02B	Temp. Probe, Temp. Blank frozen.
L0400456-02C	Temp. Probe, Temp. Blank frozen.
L0400456-02D	Temp. Probe, Temp. Blank frozen.

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 30660.000 | LABORATORY Alpha | DELIVERY DATE
PROJECT NAME Belmont Schools | ADDRESS Westboro, MA | TURNAROUND TIME 24 Hr
H&A CONTACT S. Provinca | CONTACT | PROJECT MANAGER J. Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-1 (aw) S5	1/19/04	1100	8-10'	Soil			X		2	2							4
HA3 (aw) S4	1/19/04	1400	6-8'	Soil			X		2	2							4
																	8 TOTAL

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH and Target Analytes

MCP METALS

Sampled and Relinquished by	Received by
Sign [signature]	Sign [signature]
Print Matthew Dodson	Print [illegible]
Firm H&A	Firm [illegible]
Date 1/19/04 Time 16:30	Date 1/20/04 Time 715
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print [signature]	Print D Ladebauche
Firm	Firm Alpha
Date 1/20/04 Time 1845	Date 1/20/04 Time 1845
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID

VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID

VOA Vial					X	X									
Amber Glass				X		X									
Clear Glass															
Preservative				A		AG	A								
Volume				250		40	250								

PRESERVATION KEY

A Sample chilled | C NaOH | E H_2SO_4 | G Methanol
B Sample filtered | D HNO_3 | F HCL | H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MJD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MJD This Chain of Custody Record (specify) _____ includes __X__ does not include samples defined as Drinking Water Samples.

____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003 AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400461
Date Received: 20-JAN-2004
Date Reported: 27-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? N/A

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? YES

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: L0400461
Date Reported: 27-JAN-2004

SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400461-01	HA-1 (OW) S5	BELMONT, MA
L0400461-02	HA-3 (OW) S4	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400461

MCP Related Narratives

Metals

L0400461-01 and -02 have elevated limits of detection for Selenium and Thallium due to analytical dilutions required by the matrix of the samples.

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: L0400461-01
HA-1 (OW) S5
Sample Matrix: SOIL

Date Collected: 19-JAN-2004 11:00
Date Received : 20-JAN-2004
Date Reported : 27-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0121 09:00	ST
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.4	54 6010B	0120 20:00	0121 15:34	MG
Arsenic, Total	8.3	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Barium, Total	81.	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Beryllium, Total	0.73	mg/kg	0.24	54 6010B	0120 20:00	0121 15:34	MG
Cadmium, Total	ND	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Chromium, Total	37.	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Lead, Total	11.	mg/kg	2.4	54 6010B	0120 20:00	0121 15:34	MG
Mercury, Total	ND	mg/kg	0.09	54 7471A	0120 16:35	0121 10:16	DM
Nickel, Total	27.	mg/kg	1.2	54 6010B	0120 20:00	0121 15:34	MG
Selenium, Total	ND	mg/kg	2.4	54 6010B	0120 20:00	0121 15:29	MG
Silver, Total	ND	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Thallium, Total	ND	mg/kg	2.4	54 6010B	0120 20:00	0121 15:29	MG
Vanadium, Total	42.	mg/kg	0.48	54 6010B	0120 20:00	0121 15:34	MG
Zinc, Total	58.	mg/kg	2.4	54 6010B	0120 20:00	0121 15:34	MG

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: L0400461-02
HA-3 (OW) S4
Sample Matrix: SOIL

Date Collected: 19-JAN-2004 14:00
Date Received : 20-JAN-2004
Date Reported : 27-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	77.	%	0.10	30 2540G		0121 09:00	ST
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.6	54 6010B	0120 20:00	0121 15:39	MG
Arsenic, Total	11.	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Barium, Total	83.	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Beryllium, Total	0.85	mg/kg	0.26	54 6010B	0120 20:00	0121 15:39	MG
Cadmium, Total	ND	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Chromium, Total	48.	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Lead, Total	10.	mg/kg	2.6	54 6010B	0120 20:00	0121 15:39	MG
Mercury, Total	ND	mg/kg	0.1	54 7471A	0120 16:35	0121 10:18	DM
Nickel, Total	31.	mg/kg	1.3	54 6010B	0120 20:00	0121 15:39	MG
Selenium, Total	ND	mg/kg	2.6	54 6010B	0120 20:00	0122 11:45	MG
Silver, Total	ND	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Thallium, Total	ND	mg/kg	2.6	54 6010B	0120 20:00	0122 11:45	MG
Vanadium, Total	50.	mg/kg	0.51	54 6010B	0120 20:00	0121 15:39	MG
Zinc, Total	64.	mg/kg	2.6	54 6010B	0120 20:00	0121 15:39	MG

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400461

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0400461-01, WG161432)					
Solids, Total	82.	82.	%	0	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400461

Parameter	% Recovery	QC Criteria
Total Metals LCS for sample(s) 01-02 (WG161346)		
Antimony, Total	92	75-125
Arsenic, Total	104	75-125
Barium, Total	96	75-125
Beryllium, Total	97	75-125
Cadmium, Total	90	75-125
Chromium, Total	94	75-125
Lead, Total	100	75-125
Nickel, Total	92	75-125
Selenium, Total	104	75-125
Silver, Total	94	75-125
Thallium, Total	100	75-125
Vanadium, Total	92	75-125
Zinc, Total	107	75-125
Total Metals LCS for sample(s) 01-02 (WG161319)		
Mercury, Total	98	75-125

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400461

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG161346-1)							
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Arsenic, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Barium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Beryllium, Total	ND	mg/kg	0.20	54 6010B	0120 20:00	0121 15:20	MG
Cadmium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Chromium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Lead, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Nickel, Total	ND	mg/kg	1.0	54 6010B	0120 20:00	0121 15:20	MG
Selenium, Total	ND	mg/kg	0.80	54 6010B	0120 20:00	0121 15:20	MG
Silver, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Thallium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Vanadium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Zinc, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Blank Analysis for sample(s) 01-02 (WG161319-2)							
Total Metals							
Mercury, Total	ND	mg/kg	0.08	54 7471A	0120 16:35	0121 10:10	DM

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400461

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
L0400461-01A	Amber 250ml unpreserved	A	N/A	3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI
L0400461-02A	Amber 250ml unpreserved	A	N/A	3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI

Container Comments

Container ID	Comments
L0400461-01A	Temp. Probe, Temp. Blank frozen.
L0400461-02A	Temp. Probe, Temp. Blank frozen.

CHAIN OF CUSTODY RECORD

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

FAX (617) 886-7000

Page 1 of 1

H&A FILE NO.	30660.000	LABORATORY	Alpha
PROJECT NAME	Belmont Schools	ADDRESS	Westboro, MA
H&A CONTACT	S. Provencal	CONTACT	
DELIVERY DATE			
TURNAROUND TIME	24 Hr		
PROJECT MANAGER	J. Mooney		

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-1 (gw) S5	1/19/03	1100	8-16'	Soil			X		2	2							4
HA3 (gw) S4	1/19/03	1400	6-8'	Soil			X		2	2							4
																	8 TOTAL

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH and Target Analytes

MCP METALS

Sampled and Relinquished by	Received by
Sign	Sign
Print Matthew Dodson	Print
Firm H&A	Firm
Date 1/19/04 Time 16:30	Date 1/20/04 Time 715
Relinquished by	**Received by**
Sign	Sign Jessica Lachbaucke
Print	Print D. Ladebauche
Firm	Firm Alpha
Date 1/20/04 Time 1845	Date 1/20/04 Time 1845
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID														
VOA Vial														
Amber Glass														
Plastic Bottle														
Preservative														
Volume														

SOLID														
VOA Vial					X	X								
Amber Glass			X		X	X								
Clear Glass														
Preservative			A		AG	A								
Volume			250		40	250								

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MSD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MSD This Chain of Custody Record (specify) ____ includes X does not include samples defined as Drinking Water Samples.

____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable)____ analyze ____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BELMONT SCHOOLS

Laboratory Job Number: L0400462
Date Received: 20-JAN-2004
Date Reported: 27-JAN-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? N/A

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400462
Date Reported: 27-JAN-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400462-01	HA-5 (OW) S3	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0400462

MCP Related Narratives

Metals

L0400462-01 has elevated limits of detection for Selenium and Thallium due to analytical dilutions required by the matrix of the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0400462-01
HA-5 (OW) S3
Sample Matrix: SOIL

Date Collected: 20-JAN-2004 09:30
Date Received : 20-JAN-2004
Date Reported : 27-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0121 09:00	ST
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.5	54 6010B	0120 20:00	0121 15:44	MG
Arsenic, Total	6.4	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Barium, Total	74.	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Beryllium, Total	0.66	mg/kg	0.25	54 6010B	0120 20:00	0121 15:44	MG
Cadmium, Total	ND	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Chromium, Total	36.	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Lead, Total	9.7	mg/kg	2.5	54 6010B	0120 20:00	0121 15:44	MG
Mercury, Total	ND	mg/kg	0.1	54 7471A	0120 16:35	0121 10:19	DM
Nickel, Total	23.	mg/kg	1.2	54 6010B	0120 20:00	0121 15:44	MG
Selenium, Total	ND	mg/kg	2.5	54 6010B	0120 20:00	0122 11:50	MG
Silver, Total	ND	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Thallium, Total	ND	mg/kg	2.5	54 6010B	0120 20:00	0122 11:50	MG
Vanadium, Total	41.	mg/kg	0.50	54 6010B	0120 20:00	0121 15:44	MG
Zinc, Total	58.	mg/kg	2.5	54 6010B	0120 20:00	0121 15:44	MG

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400462

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0400461-01, WG161432)					
Solids, Total	82.	82.	%	0	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400462

Parameter	% Recovery	QC Criteria
Total Metals LCS for sample(s) 01 (WG161346)		
Antimony, Total	92	75-125
Arsenic, Total	104	75-125
Barium, Total	96	75-125
Beryllium, Total	97	75-125
Cadmium, Total	90	75-125
Chromium, Total	94	75-125
Lead, Total	100	75-125
Nickel, Total	92	75-125
Selenium, Total	104	75-125
Silver, Total	94	75-125
Thallium, Total	100	75-125
Vanadium, Total	92	75-125
Zinc, Total	107	75-125
Total Metals LCS for sample(s) 01 (WG161319)		
Mercury, Total	98	75-125

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400462

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG161346-1)							
Total Metals				1 3051			
Antimony, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Arsenic, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Barium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Beryllium, Total	ND	mg/kg	0.20	54 6010B	0120 20:00	0121 15:20	MG
Cadmium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Chromium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Lead, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Nickel, Total	ND	mg/kg	1.0	54 6010B	0120 20:00	0121 15:20	MG
Selenium, Total	ND	mg/kg	0.80	54 6010B	0120 20:00	0121 15:20	MG
Silver, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Thallium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Vanadium, Total	ND	mg/kg	0.40	54 6010B	0120 20:00	0121 15:20	MG
Zinc, Total	ND	mg/kg	2.0	54 6010B	0120 20:00	0121 15:20	MG
Blank Analysis for sample(s) 01 (WG161319-2)							
Total Metals							
Mercury, Total	ND	mg/kg	0.08	54 7471A	0120 16:35	0121 10:10	DM

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400462

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
L0400462-01A	Amber 250ml unpreserved	A	N/A	3 C	Y	Absent	AG-TI, AS-TI, BA-TI, BE-TI, CD-TI, CR-TI, HG-T, NI-TI, PB-TI, PREPT, SB-TI, SE-TI, TL-TI, V-TI, ZN-TI

Container Comments

Container ID	Comments
L0400462-01A	Temp. Probe, Temp. Blank frozen.

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600
Page of

H&A FILE NO. 30660-000
PROJECT NAME Belmont Schools
H&A CONTACT S. Prouhcal

LABORATORY Alpha
ADDRESS Westboro, MA
CONTACT

DELIVERY DATE
TURNAROUND TIME 24 Hr
PROJECT MANAGER J. Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Fnr Suite C-ranges only	EPH Fnr Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-5(aw) 53	1/20/04	0930	6-8'	Soil			X		2	2							4
TRIP BLANK	1/9/04	1300	—	—													1
																	5 TOTAL

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH and target Analytes
MCP METALS
TRIP BLANK

Sampled and Relinquished by
Sign
Print Matthew Olson
Firm H&A
Date 1/20/04 Time 15:30

Received by
Sign
Print
Firm
Date 1/20/04 Time 17[illegible]

Relinquished by
Sign
Print
Firm
Date 1/20/04 Time 1845

Received by
Sign
Print D. Ladebauche
Firm Alpha
Date 1/20/04 Time 1845

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	
Clear Glass	
Preservative	
Volume	

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MJD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MJD This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL OIL RELEASE

Laboratory Job Number: L0401059

Date Received: 06-FEB-2004

Date Reported: 10-FEB-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0401059
Date Reported: 10-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401059-01	ESW1-S2	BELMONT, MA
L0401059-02	SW-CORNER	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401059

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

EPH

In reference to question E, The Surrogate % Recovery for o-Terphenyl is above acceptable limits. This is attribute to the co elution of product and surrogate.

VPH

L0401059-02 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0401059-01
ESW1-S2
Sample Matrix: SOIL

Date Collected: 06-FEB-2004 07:45
Date Received : 06-FEB-2004
Date Reported : 10-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83.	%	0.10	30 2540G		0206 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401059-01
ESW1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0209 12:15	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.89
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.89
C9-C10 Aromatics	ND	mg/kg	2.89
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.89
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.89
Benzene	ND	mg/kg	0.144
Toluene	ND	mg/kg	0.144
Ethylbenzene	ND	mg/kg	0.144
p/m-Xylene	ND	mg/kg	0.144
o-Xylene	ND	mg/kg	0.144
Methyl tert butyl ether	ND	mg/kg	0.289
Naphthalene	ND	mg/kg	1.44

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	99.0	%	70-130
2,5-Dibromotoluene-FID	100.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401059-01
ESW1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0208 14:45	0210 14:54	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.0
C19-C36 Aliphatics	ND	mg/kg	12.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.0
Naphthalene	ND	mg/kg	0.602
2-Methylnaphthalene	ND	mg/kg	0.602
Acenaphthylene	ND	mg/kg	0.602
Acenaphthene	ND	mg/kg	0.602
Fluorene	ND	mg/kg	0.602
Phenanthrene	ND	mg/kg	0.602
Anthracene	ND	mg/kg	0.602
Fluoranthene	ND	mg/kg	0.602
Pyrene	ND	mg/kg	0.602
Benzo(a)anthracene	ND	mg/kg	0.602
Chrysene	ND	mg/kg	0.602
Benzo(b)fluoranthene	ND	mg/kg	0.602
Benzo(k)fluoranthene	ND	mg/kg	0.602
Benzo(a)pyrene	ND	mg/kg	0.602
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.602
Dibenzo(a,h)anthracene	ND	mg/kg	0.602
Benzo(g,h,i)perylene	ND	mg/kg	0.602

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	65.0	%	40-140
2-Fluorobiphenyl	53.0	%	40-140
2-Bromonaphthalene	48.0	%	40-140

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: L0401059-02
SW-CORNER
Sample Matrix: SOIL

Date Collected: 06-FEB-2004 10:00
Date Received : 06-FEB-2004
Date Reported : 10-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0206 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401059-02
SW-CORNER

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0209 13:05	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	81.9	mg/kg	52.0
C9-C12 Aliphatics, Unadjusted	751.	mg/kg	52.0
C9-C10 Aromatics	579.	mg/kg	52.0
C5-C8 Aliphatics, Adjusted	81.9	mg/kg	52.0
C9-C12 Aliphatics, Adjusted	152.	mg/kg	52.0
Benzene	ND	mg/kg	2.60
Toluene	ND	mg/kg	2.60
Ethylbenzene	3.71	mg/kg	2.60
p/m-Xylene	8.08	mg/kg	2.60
o-Xylene	7.57	mg/kg	2.60
Methyl tert butyl ether	ND	mg/kg	5.20
Naphthalene	ND	mg/kg	26.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	101.	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401059-02
SW-CORNER

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0208 14:45	0210 06:46	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were greater than 140%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	2100	mg/kg	12.6
C19-C36 Aliphatics	1430	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	1960	mg/kg	12.6
C11-C22 Aromatics, Adjusted	1910	mg/kg	12.6
Naphthalene	5.52	mg/kg	0.633
2-Methylnaphthalene	28.1	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	4.08	mg/kg	0.633
Phenanthrene	8.01	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	1.58	mg/kg	0.633
Pyrene	3.18	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	2.99	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	0.677	mg/kg	0.633
Benzo(a)pyrene	1.62	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	74.0	%	40-140
o-Terphenyl	438.	%	40-140
2-Fluorobiphenyl	108.	%	40-140
2-Bromonaphthalene	123.	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401059

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0401059-01, WG162521)					
Solids, Total	83.	83.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-02 (L0401013-01, WG162579)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	110.	97.0	%	13	70-130
2,5-Dibromotoluene-FID	104.	98.0	%	6	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-02 (L0401059-01, WG162559)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	45.0	44.0	%	2	40-140
o-Terphenyl	65.0	63.0	%	3	40-140
2-Fluorobiphenyl	53.0	59.0	%	11	40-140
2-Bromonaphthalene	48.0	56.0	%	15	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401059

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG162579)		
Benzene	120	70-130
Toluene	108	70-130
Ethylbenzene	112	70-130
p/m-Xylene	98	70-130
o-Xylene	114	70-130
Methyl tert butyl ether	102	70-130
Naphthalene	106	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	107	70-130
2,5-Dibromotoluene-FID	106	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG162559)		
Naphthalene	50	40-140
Acenaphthene	56	40-140
Anthracene	75	40-140
Pyrene	80	40-140
Chrysene	83	40-140
Nonane (C9)	52	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	80	40-140
Eicosane (C20)	80	40-140
Octacosane (C28)	76	40-140
Surrogate(s)		
Chloro-Octadecane	66	40-140
o-Terphenyl	79	40-140
2-Fluorobiphenyl	64	40-140
2-Bromonaphthalene	60	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401059

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG162579-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0209 10:08	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	112.	%	70-130				
2,5-Dibromotoluene-FID	108.	%	70-130				
Blank Analysis for sample(s) 01-02 (WG162559-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0208 14:45	0210 13:16	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	50.0	%	40-140				
o-Terphenyl	67.0	%	40-140				
2-Fluorobiphenyl	59.0	%	40-140				
2-Bromonaphthalene	55.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401059

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
L0401059-01A	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0401059-01B	Amber 100ml unpreserved	A	N/A	2.1 C	Y	Absent	EPH-DELUX, TS
L0401059-02A	Vial MeOH preserved	A	N/A	2.1 C	Y	Absent	VPH-DELUX
L0401059-02B	Amber 100ml unpreserved	A	N/A	2.1 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. (BURBANK SCHOOL OIL RELEASE) 2
PROJECT NAME 30660-000
H&A CONTACT MATT COOMBS

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME SEE COMMENTS
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
ES101-S2	2/6/04	0745	6-12	SOIL					X	X							2
SW-CORNER	2/6/04	1000	10-12	SOIL					X	X							2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) & (2) EPH/VPH AND TARGET ANALYTES

+TURN AROUND TIME
VPH = 24 HRS
EPH = DUE TUE. 10 FEB. 2004

Sampled and Relinquished by	Received by
Sign TODD BUTLER	Sign
Print TODD BUTLER	Print
Firm HALEY & ALDRICH	Firm
Date 2/6/04 Time 1610	Date 2/6/04 Time 1610
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm ALPHA	Firm ALPHA
Date 2/6/04 Time 1920	Date 2/6/04 Time 1920
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	
LIQUID			
VOA Vial			
Amber Glass			
Plastic Bottle			
Preservative			
Volume			
SOLID			
VOA Vial	X		
Amber Glass		X	
Clear Glass			
Preservative	F	A	
Volume	40ml	4oz	

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL OIL RELEASE

Laboratory Job Number: L0401013
Date Received: 05-FEB-2004
Date Reported: 11-FEB-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0401013
Date Reported: 11-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401013-01	SSW 1-S2	BELMONT, MA
L0401013-02	SSW 2-S1	BELMONT, MA
L0401013-03	WSW 1-S1	BELMONT, MA
L0401013-04	BOT 1-S1	BELMONT, MA
L0401013-05	CLN-STKPL-1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401013

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0401013-01
SSW 1-S2
Sample Matrix: SOIL

Date Collected: 05-FEB-2004 13:58
Date Received : 05-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0206 19:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-01
SSW 1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0206 14:39	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.34
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.34
C9-C10 Aromatics	ND	mg/kg	2.34
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.34
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.34
Benzene	ND	mg/kg	0.117
Toluene	ND	mg/kg	0.117
Ethylbenzene	ND	mg/kg	0.117
p/m-Xylene	ND	mg/kg	0.117
o-Xylene	ND	mg/kg	0.117
Methyl tert butyl ether	ND	mg/kg	0.234
Naphthalene	ND	mg/kg	1.17

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	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: L0401013-01
SSW 1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0210 12:01	JB

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	55.0	%	40-140
o-Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

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: L0401013-02
SSW 2-S1
Sample Matrix: SOIL

Date Collected: 05-FEB-2004 14:02
Date Received : 05-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0206 19:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-02
SSW 2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0206 17:11	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.33
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.33
C9-C10 Aromatics	ND	mg/kg	3.33
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.33
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.33
Benzene	ND	mg/kg	0.166
Toluene	ND	mg/kg	0.166
Ethylbenzene	ND	mg/kg	0.166
p/m-Xylene	ND	mg/kg	0.166
o-Xylene	ND	mg/kg	0.166
Methyl tert butyl ether	ND	mg/kg	0.333
Naphthalene	ND	mg/kg	1.66

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	101.	%	70-130
2,5-Dibromotoluene-FID	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: L0401013-02
SSW 2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0210 12:46	JB

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	54.0	%	40-140
o-Terphenyl	60.0	%	40-140
2-Fluorobiphenyl	59.0	%	40-140
2-Bromonaphthalene	59.0	%	40-140

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: L0401013-03
WSW 1-S1
Sample Matrix: SOIL

Date Collected: 05-FEB-2004 14:05
Date Received : 05-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0206 19:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-03
WSW 1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0206 18:01	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.33
C9-C12 Aliphatics, Unadjusted	11.3	mg/kg	3.33
C9-C10 Aromatics	ND	mg/kg	3.33
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.33
C9-C12 Aliphatics, Adjusted	11.3	mg/kg	3.33
Benzene	ND	mg/kg	0.166
Toluene	ND	mg/kg	0.166
Ethylbenzene	ND	mg/kg	0.166
p/m-Xylene	ND	mg/kg	0.166
o-Xylene	ND	mg/kg	0.166
Methyl tert butyl ether	ND	mg/kg	0.333
Naphthalene	ND	mg/kg	1.66

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	99.0	%	70-130
2,5-Dibromotoluene-FID	91.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-03
WSW 1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0211 08:32	JB

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	50.0	%	40-140
o-Terphenyl	64.0	%	40-140
2-Fluorobiphenyl	65.0	%	40-140
2-Bromonaphthalene	65.0	%	40-140

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: L0401013-04
BOT 1-S1
Sample Matrix: SOIL

Date Collected: 05-FEB-2004 14:17
Date Received : 05-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0206 19:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-04
BOT 1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0206 18:52	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.63
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.63
C9-C10 Aromatics	ND	mg/kg	2.63
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.63
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.63
Benzene	ND	mg/kg	0.132
Toluene	ND	mg/kg	0.132
Ethylbenzene	ND	mg/kg	0.132
p/m-Xylene	ND	mg/kg	0.132
o-Xylene	ND	mg/kg	0.132
Methyl tert butyl ether	ND	mg/kg	0.263
Naphthalene	ND	mg/kg	1.32

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	106.	%	70-130
2,5-Dibromotoluene-FID	103.	%	70-130

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

Laboratory Sample Number: L0401013-04
BOT 1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0211 09:21	JB

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	ND	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	65.0	%	40-140
2-Fluorobiphenyl	64.0	%	40-140
2-Bromonaphthalene	64.0	%	40-140

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: L0401013-05
CLN-STKPL-1
Sample Matrix: SOIL

Date Collected: 05-FEB-2004 12:00
Date Received : 05-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	88.	%	0.10	30 2540G		0206 19:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-05
CLN-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0206 20:33	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.88
C9-C12 Aliphatics, Unadjusted	42.6	mg/kg	1.88
C9-C10 Aromatics	27.7	mg/kg	1.88
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.88
C9-C12 Aliphatics, Adjusted	14.6	mg/kg	1.88
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	0.146	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.188
Naphthalene	ND	mg/kg	0.942

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	101.	%	70-130
2,5-Dibromotoluene-FID	105.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401013-05
CLN-STKPL-1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0209 20:59	JB

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	179.	mg/kg	11.4
C19-C36 Aliphatics	178.	mg/kg	11.4
C11-C22 Aromatics, Unadjusted	211.	mg/kg	11.4
C11-C22 Aromatics, Adjusted	205.	mg/kg	11.4
Naphthalene	ND	mg/kg	0.568
2-Methylnaphthalene	1.82	mg/kg	0.568
Acenaphthylene	ND	mg/kg	0.568
Acenaphthene	ND	mg/kg	0.568
Fluorene	ND	mg/kg	0.568
Phenanthrene	0.842	mg/kg	0.568
Anthracene	ND	mg/kg	0.568
Fluoranthene	ND	mg/kg	0.568
Pyrene	0.878	mg/kg	0.568
Benzo(a)anthracene	ND	mg/kg	0.568
Chrysene	0.640	mg/kg	0.568
Benzo(b)fluoranthene	ND	mg/kg	0.568
Benzo(k)fluoranthene	ND	mg/kg	0.568
Benzo(a)pyrene	ND	mg/kg	0.568
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.568
Dibenzo(a,h)anthracene	ND	mg/kg	0.568
Benzo(g,h,i)perylene	1.03	mg/kg	0.568

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	77.0	%	40-140
o-Terphenyl	120.	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401013

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-05 (L0400976-01, WG162491)					
Solids, Total	87.	88.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 05 (L0400816-01, WG162219)					
C5-C8 Aliphatics	13.0	12.0	mg/kg	8	50
C9-C12 Aliphatics	24.5	23.8	mg/kg	3	50
C9-C10 Aromatics	14.9	15.7	mg/kg	5	50
C5-C8 Aliphatics, Adjusted	12.3	11.4	mg/kg	8	50
C9-C12 Aliphatics, Adjusted	8.87	7.39	mg/kg	18	50
Benzene	0.490	0.478	mg/kg	2	50
Toluene	0.179	0.173	mg/kg	3	50
Ethylbenzene	0.292	0.288	mg/kg	1	50
p/m-Xylene	0.434	0.408	mg/kg	6	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	120.	116.	%	3	70-130
2,5-Dibromotoluene-FID	101.	98.0	%	3	70-130
Volatile Petroleum Hydrocarbons for sample(s) 01-04 (L0401013-01, WG162579)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	110.	97.0	%	13	70-130
2,5-Dibromotoluene-FID	104.	98.0	%	6	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (L0401013-05, WG162404)					
C9-C18 Aliphatics	179.	128.	mg/kg	33	50
C19-C36 Aliphatics	178.	125.	mg/kg	35	50
C11-C22 Aromatics	211.	166.	mg/kg	24	50
C11-C22 Aromatics, Adjusted	205.	163.	mg/kg	23	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	1.82	1.48	mg/kg	21	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401013

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (LO401013-05, WG162404)					
Phenanthrene	0.842	0.575	mg/kg	38	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	0.878	0.578	mg/kg	41	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	0.640	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	1.03	0.815	mg/kg	23	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	77.0	57.0	%	30	40-140
o-Terphenyl	120.	103.	%	15	40-140
2-Fluorobiphenyl	72.0	76.0	%	5	40-140
2-Bromonaphthalene	75.0	75.0	%	0	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401013

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 05 (WG162219)		
Benzene	123	70-130
Toluene	111	70-130
Ethylbenzene	125	70-130
p/m-Xylene	108	70-130
o-Xylene	116	70-130
Methyl tert butyl ether	117	70-130
Naphthalene	110	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	113	70-130
2,5-Dibromotoluene-FID	102	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-04 (WG162579)		
Benzene	120	70-130
Toluene	108	70-130
Ethylbenzene	112	70-130
p/m-Xylene	98	70-130
o-Xylene	114	70-130
Methyl tert butyl ether	102	70-130
Naphthalene	106	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	107	70-130
2,5-Dibromotoluene-FID	106	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG162404)		
Naphthalene	55	40-140
Acenaphthene	60	40-140
Anthracene	72	40-140
Pyrene	86	40-140
Chrysene	89	40-140
Nonane (C9)	53	40-140
Tetradecane (C14)	67	40-140
Nonadecane (C19)	89	40-140
Eicosane (C20)	90	40-140
Octacosane (C28)	84	40-140
Surrogate(s)		
Chloro-Octadecane	72	40-140
o-Terphenyl	92	40-140
2-Fluorobiphenyl	68	40-140
2-Bromonaphthalene	70	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401013

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 05 (WG162219-6)							
Volatile Petroleum Hydrocarbons				47 98-1		0206 09:35	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	108.	%	70-130				
2,5-Dibromotoluene-FID	99.0	%	70-130				
Blank Analysis for sample(s) 01-04 (WG162579-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0206 09:35	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	108.	%	70-130				
2,5-Dibromotoluene-FID	99.0	%	70-130				
Blank Analysis for sample(s) 01-05 (WG162404-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0205 22:10	0211 07:43	JB
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401013

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG162404-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0205 22:10	0211 07:43	JB
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	55.0	%	40-140				
o-Terphenyl	60.0	%	40-140				
2-Fluorobiphenyl	66.0	%	40-140				
2-Bromonaphthalene	64.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401013

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
L0401013-01A	Vial MeOH preserved	A	N/A	0.6C	Y	Absent	VPH-DELUX
L0401013-01B	Amber 100ml unpreserved	A	N/A	0.6C	Y	Absent	EPH-DELUX, TS
L0401013-02A	Vial MeOH preserved	A	N/A	0.6C	Y	Absent	VPH-DELUX
L0401013-02B	Amber 100ml unpreserved	A	N/A	0.6C	Y	Absent	EPH-DELUX, TS
L0401013-03A	Vial MeOH preserved	A	N/A	0.6C	Y	Absent	VPH-DELUX
L0401013-03B	Amber 100ml unpreserved	A	N/A	0.6C	Y	Absent	EPH-DELUX, TS
L0401013-04A	Vial MeOH preserved	A	N/A	0.6C	Y	Absent	VPH-DELUX
L0401013-04B	Amber 100ml unpreserved	A	N/A	0.6C	Y	Absent	EPH-DELUX, TS
L0401013-05A	Vial MeOH preserved	A	N/A	0.6C	Y	Absent	VPH-DELUX
L0401013-05B	Amber 100ml unpreserved	A	N/A	0.6C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO.	30660-000	LABORATORY	ALPHA
PROJECT NAME	BUCKMAN SCITUATE OIL RELEASE	ADDRESS	
H&A CONTACT	MATT COMBS	CONTACT	
DELIVERY DATE		TURNAROUND TIME	SEE COMMENTS
PROJECT MANAGER			

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite	(1) VPH C-ranges only	(2) EPH Full Suite	(2) EPH C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
SSW1-S2	2/5/04	1358	12	SOIL					X		X								2
SSW2-S1		1402	12						X		X								2
WSW1-S1		1405	6-12						X		X								2
BOT1-S1		1417	14						X		X								2
CLN-STKPL-1		1200	—						X		X								2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1)&(2) EPH/VPH WITH TARGET ANALYTES.

TURN AROUND TIME
*VPH 24 HRS
*EPH DUE TUE. 10 FEB. 2004

Sampled and Relinquished by	Received by
Sign Todd Butler	Sign
Print Todd Butler	Print
Firm LAT ENV	Firm
Date 2/5/04 Time 1545	Date 2/5/04 Time 1545
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 2/5/04 Time 1700	Date 2/5/04 Time 1700
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 2-5-04 Time 2000	Date 2-5-04 Time 2000

	LIQUID													
														VOA Vial
														Amber Glass
														Plastic Bottle
														Preservative
														Volume
	SOLID													
					X									VOA Vial
						X								Amber Glass
														Clear Glass
														Preservative
					40ml	40ml								Volume

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL OIL RELEASE

Laboratory Job Number: L0401094

Date Received: 09-FEB-2004

Date Reported: 11-FEB-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401094-01	UST-STKPL3-S1	BELMONT, MA
L0401094-02	UST-STKPL3-S2	BELMONT, MA
L0401094-03	UST-STKPL3-S3	BELMONT, MA
L0401094-04	UST-STKPL3-S4	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0401094

TPH-8100

L0401094-01, -02 and -04 have elevated limits of detection due to the 20x dilutions required by the matrix interferences encountered during the extraction, concentration, and/or digestion of the samples.

L0401094-03 has elevated limits of detection due to the 10x dilution required by the matrix interferences encountered during the extraction, concentration, and/or digestion of the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0401094-01
UST-STKPL3-S1
Sample Matrix: SOIL

Date Collected: 09-FEB-2004 13:55
Date Received : 09-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30 2540G		0210 11:08	ST
Hydrocarbon Scan by GC 8100M				1 8100M	0210 08:50	0211 11:27	JB
Mineral Spirits	ND	mg/kg	2200				
Gasoline	ND	mg/kg	2200				
Fuel Oil #2/Diesel	ND	mg/kg	2200				
Fuel Oil #4	ND	mg/kg	2200				
Fuel Oil #6	ND	mg/kg	2200				
Motor Oil	ND	mg/kg	2200				
Kerosene	ND	mg/kg	2200				
Transformer Oil	ND	mg/kg	2200				
Unknown Hydrocarbon	16000	mg/kg	2200				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	74.0	%	40-140				

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: L0401094-02
UST-STKPL3-S2
Sample Matrix: SOIL

Date Collected: 09-FEB-2004 13:58
Date Received : 09-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	92.	%	0.10	30 2540G		0210 11:08	ST
Hydrocarbon Scan by GC 8100M				1 8100M	0210 08:50	0211 12:26	JB
Mineral Spirits	ND	mg/kg	2200				
Gasoline	ND	mg/kg	2200				
Fuel Oil #2/Diesel	ND	mg/kg	2200				
Fuel Oil #4	ND	mg/kg	2200				
Fuel Oil #6	ND	mg/kg	2200				
Motor Oil	ND	mg/kg	2200				
Kerosene	ND	mg/kg	2200				
Transformer Oil	ND	mg/kg	2200				
Unknown Hydrocarbon	19000	mg/kg	2200				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	130.	%	40-140				

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: L0401094-03
UST-STKPL3-S3
Sample Matrix: SOIL

Date Collected: 09-FEB-2004 14:00
Date Received : 09-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	85.	%	0.10	30 2540G		0210 11:08	ST
Hydrocarbon Scan by GC 8100M				1 8100M	0210 08:50	0211 10:24	JB
Mineral Spirits	ND	mg/kg	1200				
Gasoline	ND	mg/kg	1200				
Fuel Oil #2/Diesel	ND	mg/kg	1200				
Fuel Oil #4	ND	mg/kg	1200				
Fuel Oil #6	ND	mg/kg	1200				
Motor Oil	ND	mg/kg	1200				
Kerosene	ND	mg/kg	1200				
Transformer Oil	ND	mg/kg	1200				
Unknown Hydrocarbon	9500	mg/kg	1200				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	103.	%	40-140				

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: L0401094-04
UST-STKPL3-S4
Sample Matrix: SOIL

Date Collected: 09-FEB-2004 14:02
Date Received : 09-FEB-2004
Date Reported : 11-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30 2540G		0210 11:08	ST
Hydrocarbon Scan by GC 8100M				1 8100M	0210 08:50	0211 11:27	JB
Mineral Spirits	ND	mg/kg	2300				
Gasoline	ND	mg/kg	2300				
Fuel Oil #2/Diesel	ND	mg/kg	2300				
Fuel Oil #4	ND	mg/kg	2300				
Fuel Oil #6	ND	mg/kg	2300				
Motor Oil	ND	mg/kg	2300				
Kerosene	ND	mg/kg	2300				
Transformer Oil	ND	mg/kg	2300				
Unknown Hydrocarbon	19000	mg/kg	2300				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	139.	%	40-140				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401094

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-04 (L0401094-01, WG162656)					
Solids, Total	92.	92.	%	0	
Hydrocarbon Scan by GC 8100M for sample(s) 01-04 (L0401094-02, WG162694)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	19000	20000	mg/kg	5	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	130.	97.0	%	29	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401094

Parameter	% Recovery	QC Criteria
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01-04 (WG162694)		
Petroleum Spike	130	40-140
Surrogate(s)		
o-Terphenyl	99	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401094

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-04 (WG162694-1)								
Hydrocarbon Scan by GC 8100M				1	8100M	0210 08:50	0211 13:37	JB
Mineral Spirits	ND	mg/kg	200					
Gasoline	ND	mg/kg	200					
Fuel Oil #2/Diesel	ND	mg/kg	200					
Fuel Oil #4	ND	mg/kg	200					
Fuel Oil #6	ND	mg/kg	200					
Motor Oil	ND	mg/kg	200					
Kerosene	ND	mg/kg	200					
Transformer Oil	ND	mg/kg	200					
Unknown Hydrocarbon	ND	mg/kg	200					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	74.0	%	40-140					

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME BURBANK SCHOOL OIL RELEASE
H&A CONTACT MATT COMBS

LABORATORY AIDH
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 48 HRS
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify) (1)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
UST-STKPL3-S1	2/9/04	1355	—	SOIL							X						1
UST-STKPL3-S2		1358	—	"							X						1
UST-STKPL3-S3		1400	—	"							X						1
UST-STKPL3-S4	↓	1402	—	"							X						1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) METHOD 8100

Sampled and Relinquished by	Received by
Sign Todd Burell	Sign
Print Todd Burell	Print
Firm H&A	Firm
Date 2/9/04 Time	Date 2/9/04 Time 1740
Relinquished by	**Received by**
Sign	Sign Donna Ladebauch
Print	Print D Ladebauch
Firm	Firm Alpha
Date 2/9/04 Time 1955	Date 2/9/04 Time 1955
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	SOLID
VOA Vial	VOA Vial
Amber Glass	Amber Glass
Plastic Bottle	Clear Glass
Preservative	Preservative
Volume	Volume

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL OIL RELEASE

Laboratory Job Number: L0401095

Date Received: 09-FEB-2004

Date Reported: 12-FEB-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0401095
Date Reported: 12-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401095-01	ESW1-S3	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401095

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

VPH

L0401095-01 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

EPH

L0401095-01 has elevated limits of detection due to the 10x dilution required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0401095-01
ESW1-S3
Sample Matrix: SOIL

Date Collected: 09-FEB-2004 10:00
Date Received : 09-FEB-2004
Date Reported : 12-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0210 11:08	ST

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401095-01
ESW1-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0210 21:10	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	351.	mg/kg	39.2
C9-C12 Aliphatics, Unadjusted	2980	mg/kg	39.2
C9-C10 Aromatics	1430	mg/kg	39.2
C5-C8 Aliphatics, Adjusted	343.	mg/kg	39.2
C9-C12 Aliphatics, Adjusted	1490	mg/kg	39.2
Benzene	ND	mg/kg	1.96
Toluene	8.28	mg/kg	1.96
Ethylbenzene	11.4	mg/kg	1.96
p/m-Xylene	28.6	mg/kg	1.96
o-Xylene	18.9	mg/kg	1.96
Methyl tert butyl ether	ND	mg/kg	3.92
Naphthalene	80.6	mg/kg	19.6

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	96.0	%	70-130
2,5-Dibromotoluene-FID	95.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401095-01
ESW1-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0212 10:14	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	9480	mg/kg	106.
C19-C36 Aliphatics	6260	mg/kg	106.
C11-C22 Aromatics, Unadjusted	8000	mg/kg	106.
C11-C22 Aromatics, Adjusted	7720	mg/kg	106.
Naphthalene	44.6	mg/kg	5.32
2-Methylnaphthalene	163.	mg/kg	5.32
Acenaphthylene	ND	mg/kg	5.32
Acenaphthene	ND	mg/kg	5.32
Fluorene	10.1	mg/kg	5.32
Phenanthrene	39.7	mg/kg	5.32
Anthracene	ND	mg/kg	5.32
Fluoranthene	ND	mg/kg	5.32
Pyrene	7.89	mg/kg	5.32
Benzo(a)anthracene	8.31	mg/kg	5.32
Chrysene	10.7	mg/kg	5.32
Benzo(b)fluoranthene	ND	mg/kg	5.32
Benzo(k)fluoranthene	ND	mg/kg	5.32
Benzo(a)pyrene	ND	mg/kg	5.32
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	5.32
Dibenzo(a,h)anthracene	ND	mg/kg	5.32
Benzo(g,h,i)perylene	ND	mg/kg	5.32

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	65.0	%	40-140
o-Terphenyl	97.0	%	40-140
2-Fluorobiphenyl	117.	%	40-140
2-Bromonaphthalene	90.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401095

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0401094-01, WG162656)					
Solids, Total	92.	92.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0401096-03, WG162744)					
C5-C8 Aliphatics	6.18	6.70	mg/kg	8	50
C9-C12 Aliphatics	147.	138.	mg/kg	6	50
C9-C10 Aromatics	77.8	76.4	mg/kg	2	50
C5-C8 Aliphatics, Adjusted	6.18	6.70	mg/kg	8	50
C9-C12 Aliphatics, Adjusted	68.8	61.4	mg/kg	11	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	93.0	96.0	%	3	70-130
2,5-Dibromotoluene-FID	93.0	98.0	%	5	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0401095-01, WG162780)					
C9-C18 Aliphatics	9480	8900	mg/kg	6	50
C19-C36 Aliphatics	6260	5800	mg/kg	8	50
C11-C22 Aromatics	8000	7850	mg/kg	2	50
C11-C22 Aromatics, Adjusted	7720	7570	mg/kg	2	50
Naphthalene	44.6	46.8	mg/kg	5	50
2-Methylnaphthalene	163.	158.	mg/kg	3	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	10.1	9.73	mg/kg	4	50
Phenanthrene	39.7	35.8	mg/kg	10	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	7.89	7.71	mg/kg	2	50
Benzo(a)anthracene	8.31	8.41	mg/kg	1	50
Chrysene	10.7	10.2	mg/kg	5	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	65.0	45.0	%	36	40-140
o-Terphenyl	97.0	99.0	%	2	40-140
2-Fluorobiphenyl	117.	173.	%	39	40-140
2-Bromonaphthalene	90.0	91.0	%	1	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401095

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG162744)		
Benzene	94	70-130
Toluene	90	70-130
Ethylbenzene	88	70-130
p/m-Xylene	88	70-130
o-Xylene	90	70-130
Methyl tert butyl ether	86	70-130
Naphthalene	97	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	98	70-130
2,5-Dibromotoluene-FID	96	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG162780)		
Naphthalene	42	40-140
Acenaphthene	51	40-140
Anthracene	68	40-140
Pyrene	79	40-140
Chrysene	80	40-140
Nonane (C9)	43	40-140
Tetradecane (C14)	56	40-140
Nonadecane (C19)	76	40-140
Eicosane (C20)	78	40-140
Octacosane (C28)	76	40-140
Surrogate(s)		
Chloro-Octadecane	53	40-140
o-Terphenyl	75	40-140
2-Fluorobiphenyl	60	40-140
2-Bromonaphthalene	59	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401095

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG162744-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0210 09:24	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	106.	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 01 (WG162780-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0211 21:10	LL
C9-C18 Aliphatics	ND	mg/kg	20.0				
C19-C36 Aliphatics	ND	mg/kg	20.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	20.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	20.0				
Naphthalene	ND	mg/kg	1.00				
2-Methylnaphthalene	ND	mg/kg	1.00				
Acenaphthylene	ND	mg/kg	1.00				
Acenaphthene	ND	mg/kg	1.00				
Fluorene	ND	mg/kg	1.00				
Phenanthrene	ND	mg/kg	1.00				
Anthracene	ND	mg/kg	1.00				
Fluoranthene	ND	mg/kg	1.00				
Pyrene	ND	mg/kg	1.00				
Benzo(a)anthracene	ND	mg/kg	1.00				
Chrysene	ND	mg/kg	1.00				
Benzo(b)fluoranthene	ND	mg/kg	1.00				
Benzo(k)fluoranthene	ND	mg/kg	1.00				
Benzo(a)pyrene	ND	mg/kg	1.00				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	1.00				
Dibenzo(a,h)anthracene	ND	mg/kg	1.00				
Benzo(g,h,i)perylene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	53.0	%	40-140				
o-Terphenyl	69.0	%	40-140				
2-Fluorobiphenyl	69.0	%	40-140				
2-Bromonaphthalene	65.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401095

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
L0401095-01A	Vial MeOH preserved	A	NA	0.4 C	Y	Absent	VPH-DELUX
L0401095-01B	Amber 100ml unpreserved	A	NA	0.4 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

ALDRICH
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Fax (617) 886-7600

OIL

H&A FILE NO. (Burbank School ~~Tank~~ Release)
PROJECT NAME 30660-000
H&A CONTACT MATT COOMBS

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 2-3 DAY
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
ESW1-S3	2/9/04	1000	7	SOIL					X	X								Laboratory to use applicable DEP CAM methods, unless otherwise directed. (1)(2) EPH/VPH AND TARGET ANALYTES

Sampled and Relinquished by	Received by
Sign Todd R Butler	Sign [signature]
Print Todd Butler	Print Winslow
Firm H&A	Firm ALPHA
Date 2/9/04 Time	Date 2/9/04 Time 1740

Relinquished by	Received by
Sign [signature]	Sign Denise Ladebauche
Print	Print D. Ladebauche
Firm	Firm Alpha
Date 2/9/04 Time 1955	Date 2/9/04 Time 1955

Relinquished by	Received by
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID: VOA Vial / Amber Glass / Plastic Bottle / Preservative / Volume

SOLID: VOA Vial / Amber Glass / Clear Glass / Preservative / Volume

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled C NaOH E H_2SO_4 G Methanol
B Sample filtered D HNO_3 F HCL H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_______ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_______ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_______ This Chain of Custody Record (specify) _______ includes _______ does not include samples defined as Drinking Water Samples.

_______ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _______ analyze _______ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200

Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL OIL RELEASE

Laboratory Job Number: L0401138

Date Received: 10-FEB-2004

Date Reported: 13-FEB-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0401138
Date Reported: 13-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401138-01	BOT2-S1	BELMONT, MA
L0401138-02	ESW2-S2	BELMONT, MA
L0401138-03	WSW2-S2	BELMONT, MA
L0401138-04	NSW1-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401138

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0401138-01
BOT2-S1
Sample Matrix: SOIL

Date Collected: 10-FEB-2004 07:52
Date Received : 10-FEB-2004
Date Reported : 13-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0210 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-01
BOT2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0211 14:57	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.32
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.32
C9-C10 Aromatics	ND	mg/kg	2.32
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.32
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.32
Benzene	ND	mg/kg	0.116
Toluene	ND	mg/kg	0.116
Ethylbenzene	ND	mg/kg	0.116
p/m-Xylene	ND	mg/kg	0.116
o-Xylene	ND	mg/kg	0.116
Methyl tert butyl ether	ND	mg/kg	0.232
Naphthalene	ND	mg/kg	1.16

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	92.0	%	70-130
2,5-Dibromotoluene-FID	103.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-01
BOT2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0211 23:37	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	ND	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	47.0	%	40-140
o-Terphenyl	74.0	%	40-140
2-Fluorobiphenyl	67.0	%	40-140
2-Bromonaphthalene	65.0	%	40-140

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: L0401138-02
ESW2-S2
Sample Matrix: SOIL

Date Collected: 10-FEB-2004 11:15
Date Received : 10-FEB-2004
Date Reported : 13-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0210 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-02
ESW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0211 15:48	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.72
C9-C12 Aliphatics, Unadjusted	8.58	mg/kg	2.72
C9-C10 Aromatics	4.91	mg/kg	2.72
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.72
C9-C12 Aliphatics, Adjusted	3.67	mg/kg	2.72
Benzene	ND	mg/kg	0.136
Toluene	ND	mg/kg	0.136
Ethylbenzene	ND	mg/kg	0.136
p/m-Xylene	ND	mg/kg	0.136
o-Xylene	ND	mg/kg	0.136
Methyl tert butyl ether	ND	mg/kg	0.272
Naphthalene	ND	mg/kg	1.36

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	97.0	%	70-130
2,5-Dibromotoluene-FID	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: L0401138-02
ESW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0212 00:26	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	29.9	mg/kg	12.5
C19-C36 Aliphatics	33.4	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	34.7	mg/kg	12.5
C11-C22 Aromatics, Adjusted	34.7	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	56.0	%	40-140
o-Terphenyl	71.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0401138-03
WSW2-S2
Sample Matrix: SOIL

Date Collected: 10-FEB-2004 11:20
Date Received : 10-FEB-2004
Date Reported : 13-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0210 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-03
WSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0211 16:39	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.09
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.09
C9-C10 Aromatics	ND	mg/kg	3.09
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.09
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.09
Benzene	ND	mg/kg	0.154
Toluene	ND	mg/kg	0.154
Ethylbenzene	ND	mg/kg	0.154
p/m-Xylene	ND	mg/kg	0.154
o-Xylene	ND	mg/kg	0.154
Methyl tert butyl ether	ND	mg/kg	0.309
Naphthalene	ND	mg/kg	1.54

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	86.0	%	70-130
2,5-Dibromotoluene-FID	96.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-03
WSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0212 01:15	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	16.7	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	41.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	63.0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

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: L0401138-04
NSW1-S1
Sample Matrix: SOIL

Date Collected: 10-FEB-2004 12:00
Date Received : 10-FEB-2004
Date Reported : 13-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0210 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-04
NSW1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0211 17:29	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.29
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.29
C9-C10 Aromatics	ND	mg/kg	3.29
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.29
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.29
Benzene	ND	mg/kg	0.164
Toluene	ND	mg/kg	0.164
Ethylbenzene	ND	mg/kg	0.164
p/m-Xylene	ND	mg/kg	0.164
o-Xylene	ND	mg/kg	0.164
Methyl tert butyl ether	ND	mg/kg	0.329
Naphthalene	ND	mg/kg	1.64

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	93.0	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401138-04
NSW1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0212 02:04	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	47.0	%	40-140
o-Terphenyl	70.0	%	40-140
2-Fluorobiphenyl	71.0	%	40-140
2-Bromonaphthalene	69.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401138

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-04 (L0401131-01, WG162729)					
Solids, Total	86.	86.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-04 (L0401013-01, WG162579)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	110.	97.0	%	13	70-130
2,5-Dibromotoluene-FID	104.	98.0	%	6	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-04 (L0401138-01, WG162781)					
C9-C18 Aliphatics	ND	13.6	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	47.0	51.0	%	8	40-140
o-Terphenyl	74.0	72.0	%	3	40-140
2-Fluorobiphenyl	67.0	74.0	%	10	40-140
2-Bromonaphthalene	65.0	73.0	%	12	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401138

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-04 (WG162579)		
Benzene	120	70-130
Toluene	108	70-130
Ethylbenzene	112	70-130
p/m-Xylene	98	70-130
o-Xylene	114	70-130
Methyl tert butyl ether	102	70-130
Naphthalene	106	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	107	70-130
2,5-Dibromotoluene-FID	106	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-04 (WG162781)		
Naphthalene	42	40-140
Acenaphthene	51	40-140
Anthracene	68	40-140
Pyrene	79	40-140
Chrysene	80	40-140
Nonane (C9)	43	40-140
Tetradecane (C14)	56	40-140
Nonadecane (C19)	76	40-140
Eicosane (C20)	78	40-140
Octacosane (C28)	76	40-140
Surrogate(s)		
Chloro-Octadecane	53	40-140
o-Terphenyl	75	40-140
2-Fluorobiphenyl	60	40-140
2-Bromonaphthalene	59	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401138

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-04 (WG162579-6)							
Volatile Petroleum Hydrocarbons				47 98-1		0211 09:09	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	96.0	%	70-130				
2,5-Dibromotoluene-FID	106.	%	70-130				
Blank Analysis for sample(s) 01-04 (WG162781-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0210 18:50	0211 21:10	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	53.0	%	40-140				
o-Terphenyl	69.0	%	40-140				
2-Fluorobiphenyl	69.0	%	40-140				
2-Bromonaphthalene	65.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401138

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
L0401138-01A	Vial MeOH preserved	A	NA	4.4 C	Y	Absent	VPH-DELUX
L0401138-01B	Amber 100ml unpreserved	A	NA	4.4 C	Y	Absent	EPH-DELUX, TS
L0401138-02A	Vial MeOH preserved	A	NA	4.4 C	Y	Absent	VPH-DELUX
L0401138-02B	Amber 250ml unpreserved	A	NA	4.4 C	Y	Absent	EPH-DELUX, TS
L0401138-03A	Vial MeOH preserved	A	NA	4.4 C	Y	Absent	VPH-DELUX
L0401138-03B	Amber 250ml unpreserved	A	NA	4.4 C	Y	Absent	EPH-DELUX, TS
L0401138-04A	Vial MeOH preserved	A	NA	4.4 C	Y	Absent	VPH-DELUX
L0401138-04B	Amber 250ml unpreserved	A	NA	4.4 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30660-000 | LABORATORY ALPHA | DELIVERY DATE
PROJECT NAME BILLERICA SCHOOL OIL RELEASE | ADDRESS | TURNAROUND TIME 2-3 DAYS
H&A CONTACT MATT COOMBS | CONTACT | PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite (1) C-ranges only	EPH Full Suite (2) C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
BOT2-S1	2/10/04	0752	14	SOIL					X	X							2
ESW2-S2	"	1115	6-12	"					X	X							2
WSW2-S2	"	1120	6-12	"					X	X							2
NSW1-S1	"	1200	"	"					X	X							2

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

0 of (2) EPH/VPH AND TARGET ANALYTES

Sampled and Relinquished by	Received by
Sign Todd R Butler	Sign
Print Todd Butler	Print
Firm HEA	Firm ALPHA
Date 2/10/04 Time	Date 2/10/04 Time 1705
Relinquished by	**Received by**
Sign	Sign Vanessa Ladebauche
Print	Print D. Ladebauche
Firm	Firm ALPHA
Date 2/10/04 Time 1920	Date 2/10/04 Time 1920
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	SOLID
VOA Vial	VOA Vial
Amber Glass	Amber Glass
Plastic Bottle	Clear Glass
Preservative	Preservative
Volume	Volume

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Laboratory Job Number: L0401284

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Date Received: 12-FEB-2004

Attn: Mr. Steve Provencal
Date Reported: 17-FEB-2004

Project Number: 30660-000
Delivery Method: Alpha

Site: BURBANK SCHOOL OIL RELEASE

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	NA

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: James Todaro
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0401284
Date Reported: 17-FEB-2004

HA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401284-01	UST-STKPL4-S1	BELMONT, MA
L0401284-02	UST-STKPL5-S1	BELMONT, MA
L0401284-03	TRIP BLANK	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401284

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of PCB by method 8082 and for the analysis of SemiVolatile Organics by method 8270C.

Metals

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

L0401284-02 has an elevated limit of detection for Selenium due to dilutions required by the matrix interferences encountered during the analysis of the sample.

Volatile Organics

L0401284-02 has elevated limits of detection due to the dilutions required by the elevated concentrations of target compounds in the sample.

SemiVolatile Organics

The RCS-1/S-1 limit was not achieved for 3,3'-Dichlorobenzidine.

The project required reporting limits were not achieved on L0401284-01 due to the 2x dilution required by the elevated concentrations of target compounds in the sample.

The project required reporting limits were not achieved on L0401284-02 due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

In reference to question E, the LCS % recovery for Aniline (39%) is below the acceptance criteria for the method.

Non-MCP Related Narratives

TPH-8100

L0401284-01 has elevated limits of detection due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0401284-01
UST-STKPL4-S1
Sample Matrix: SOIL

Date Collected: 12-FEB-2004 07:30
Date Received : 12-FEB-2004
Date Reported : 17-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30	2540G		0212 23:00	LK
pH	6.6	SU	-	1	9045C		0212 21:30	LK
Flash Point	>150	deg F	70	1	1010		0216 10:00	ST
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		0213 15:00	JT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0213 15:00	JT
Total Metals				1	3051			
Arsenic, Total	9.1	mg/kg	0.46	54	6010B	0213 17:30	0216 13:39	MG
Barium, Total	57.	mg/kg	0.46	54	6010B	0213 17:30	0216 13:39	MG
Cadmium, Total	ND	mg/kg	0.46	54	6010B	0213 17:30	0216 13:39	MG
Chromium, Total	27.	mg/kg	0.46	54	6010B	0213 17:30	0216 13:39	MG
Lead, Total	21.	mg/kg	2.3	54	6010B	0213 17:30	0216 13:39	MG
Mercury, Total	ND	mg/kg	0.09	54	7471A	0213 15:25	0216 12:56	DM
Selenium, Total	ND	mg/kg	0.92	54	6010B	0213 17:30	0216 13:39	MG
Silver, Total	ND	mg/kg	0.46	54	6010B	0213 17:30	0216 13:39	MG
Volatile Organics by MCP 8260B/5035-High				54	8260B		0214 14:00	BT
Methylene chloride	ND	ug/kg	520					
1,1-Dichloroethane	ND	ug/kg	77.					
Chloroform	ND	ug/kg	77.					
Carbon tetrachloride	ND	ug/kg	52.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	52.					
1,1,2-Trichloroethane	ND	ug/kg	77.					
Tetrachloroethene	ND	ug/kg	52.					
Chlorobenzene	ND	ug/kg	52.					
Trichlorofluoromethane	ND	ug/kg	260					
1,2-Dichloroethane	ND	ug/kg	52.					
1,1,1-Trichloroethane	ND	ug/kg	52.					
Bromodichloromethane	ND	ug/kg	52.					
trans-1,3-Dichloropropene	ND	ug/kg	52.					
cis-1,3-Dichloropropene	ND	ug/kg	52.					
1,1-Dichloropropene	ND	ug/kg	260					
Bromoform	ND	ug/kg	210					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401284-01
UST-STKPL4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0214 14:00	BT
1,1,2,2-Tetrachloroethane	ND	ug/kg	52.				
Benzene	ND	ug/kg	52.				
Toluene	ND	ug/kg	77.				
Ethylbenzene	68.	ug/kg	52.				
Chloromethane	ND	ug/kg	260				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	52.				
trans-1,2-Dichloroethene	ND	ug/kg	77.				
Trichloroethene	ND	ug/kg	52.				
1,2-Dichlorobenzene	ND	ug/kg	260				
1,3-Dichlorobenzene	ND	ug/kg	260				
1,4-Dichlorobenzene	ND	ug/kg	260				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	210	ug/kg	52.				
o-Xylene	220	ug/kg	52.				
cis-1,2-Dichloroethene	ND	ug/kg	52.				
Dibromomethane	ND	ug/kg	520				
1,2,3-Trichloropropane	ND	ug/kg	520				
Styrene	ND	ug/kg	52.				
Dichlorodifluoromethane	ND	ug/kg	520				
Acetone	ND	ug/kg	520				
Carbon disulfide	ND	ug/kg	520				
2-Butanone	ND	ug/kg	520				
4-Methyl-2-pentanone	ND	ug/kg	520				
2-Hexanone	ND	ug/kg	520				
Bromochloromethane	ND	ug/kg	260				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	260				
1,2-Dibromoethane	ND	ug/kg	260				
1,3-Dichloropropane	ND	ug/kg	260				
1,1,1,2-Tetrachloroethane	ND	ug/kg	52.				
Bromobenzene	ND	ug/kg	260				
n-Butylbenzene	360	ug/kg	52.				
sec-Butylbenzene	150	ug/kg	52.				
tert-Butylbenzene	ND	ug/kg	260				
o-Chlorotoluene	ND	ug/kg	260				
p-Chlorotoluene	ND	ug/kg	260				
1,2-Dibromo-3-chloropropane	ND	ug/kg	260				
Hexachlorobutadiene	ND	ug/kg	260				
Isopropylbenzene	67.	ug/kg	52.				
p-Isopropyltoluene	160	ug/kg	52.				
Naphthalene	1400	ug/kg	260				
n-Propylbenzene	160	ug/kg	52.				
1,2,3-Trichlorobenzene	ND	ug/kg	260				
1,2,4-Trichlorobenzene	ND	ug/kg	260				
1,3,5-Trimethylbenzene	420	ug/kg	260				
1,2,4-Trimethylbenzene	1100	ug/kg	260				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401284-01
UST-STKPL4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0214 14:00	BT
Ethyl ether	ND	ug/kg	260				
Isopropyl Ether	ND	ug/kg	210				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	210				
Tertiary-Amyl Methyl Ether	ND	ug/kg	210				
1,4-Dioxane	ND	ug/kg	26000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	94.0	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	97.0	%	70-130				
Dibromofluoromethane	90.0	%	70-130				
Semivolatile Organics by MCP 8270C				54 8270C	0212 16:40	0213 19:40	HL
Acenaphthene	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	1200				
Hexachlorobenzene	ND	ug/kg	1200				
Bis(2-chloroethyl)ether	ND	ug/kg	1200				
2-Chloronaphthalene	ND	ug/kg	1200				
1,2-Dichlorobenzene	ND	ug/kg	1200				
1,3-Dichlorobenzene	ND	ug/kg	1200				
1,4-Dichlorobenzene	ND	ug/kg	1200				
3,3'-Dichlorobenzidine	ND	ug/kg	2300				
2,4-Dinitrotoluene	ND	ug/kg	1200				
2,6-Dinitrotoluene	ND	ug/kg	1200				
Azobenzene	ND	ug/kg	1200				
Fluoranthene	ND	ug/kg	1200				
4-Bromophenyl phenyl ether	ND	ug/kg	1200				
Bis(2-chloroisopropyl)ether	ND	ug/kg	1200				
Bis(2-chloroethoxy)methane	ND	ug/kg	1200				
Hexachlorobutadiene	ND	ug/kg	2300				
Hexachloroethane	ND	ug/kg	1200				
Isophorone	ND	ug/kg	1200				
Naphthalene	ND	ug/kg	1200				
Nitrobenzene	ND	ug/kg	1200				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	2300				
Butyl benzyl phthalate	ND	ug/kg	1200				
Di-n-butylphthalate	ND	ug/kg	1200				
Di-n-octylphthalate	ND	ug/kg	1200				
Diethyl phthalate	ND	ug/kg	1200				
Dimethyl phthalate	ND	ug/kg	1200				
Benzo(a)anthracene	ND	ug/kg	1200				
Benzo(a)pyrene	ND	ug/kg	1200				
Benzo(b)fluoranthene	ND	ug/kg	1200				
Benzo(k)fluoranthene	ND	ug/kg	1200				
Chrysene	ND	ug/kg	1200				
Acenaphthylene	ND	ug/kg	1200				
Anthracene	ND	ug/kg	1200				
Benzo(ghi)perylene	ND	ug/kg	1200				
Fluorene	ND	ug/kg	1200				

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

Laboratory Sample Number: L0401284-01
UST-STKPL4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by MCP 8270C continued				54 8270C	0212 16:40	0213 19:40	HL
Phenanthrene	ND	ug/kg	1200				
Dibenzo(a,h)anthracene	ND	ug/kg	1200				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	1200				
Pyrene	ND	ug/kg	1200				
Aniline	ND	ug/kg	2300				
4-Chloroaniline	ND	ug/kg	1200				
Dibenzofuran	ND	ug/kg	1200				
2-Methylnaphthalene	2000	ug/kg	1200				
Acetophenone	ND	ug/kg	4600				
2,4,6-Trichlorophenol	ND	ug/kg	1200				
2-Chlorophenol	ND	ug/kg	1400				
2,4-Dichlorophenol	ND	ug/kg	2300				
2,4-Dimethylphenol	ND	ug/kg	1200				
2-Nitrophenol	ND	ug/kg	4600				
4-Nitrophenol	ND	ug/kg	2300				
2,4-Dinitrophenol	ND	ug/kg	4600				
Pentachlorophenol	ND	ug/kg	4600				
Phenol	ND	ug/kg	1600				
2-Methylphenol	ND	ug/kg	1400				
3-Methylphenol/4-Methylphenol	ND	ug/kg	1400				
2,4,5-Trichlorophenol	ND	ug/kg	1200				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	45.0	%	30-130				
Phenol-d6	50.0	%	30-130				
Nitrobenzene-d5	47.0	%	30-130				
2-Fluorobiphenyl	64.0	%	30-130				
2,4,6-Tribromophenol	39.0	%	30-130				
4-Terphenyl-d14	78.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0214 13:09	AK
Aroclor 1221	ND	ug/kg	58.1				
Aroclor 1232	ND	ug/kg	58.1				
Aroclor 1242/1016	ND	ug/kg	58.1				
Aroclor 1248	ND	ug/kg	58.1				
Aroclor 1254	ND	ug/kg	58.1				
Aroclor 1260	ND	ug/kg	58.1				
Aroclor 1262	ND	ug/kg	58.1				
Aroclor 1268	ND	ug/kg	58.1				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	63.0	%	30-150				
Decachlorobiphenyl	64.0	%	30-150				
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0214 13:09	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	58.0	%	30-150				
Decachlorobiphenyl	58.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401284-01
UST-STKPL4-S1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M				1	8100M	0212 21:00	0216 15:41	JB
Mineral Spirits	ND	mg/kg	580					
Gasoline	ND	mg/kg	580					
Fuel Oil #2/Diesel	ND	mg/kg	580					
Fuel Oil #4	ND	mg/kg	580					
Fuel Oil #6	2100	mg/kg	580					
Motor Oil	ND	mg/kg	580					
Kerosene	ND	mg/kg	580					
Transformer Oil	ND	mg/kg	580					
Unknown Hydrocarbon	ND	mg/kg	580					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	92.0	%	40-140					

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: L0401284-02
UST-STKPL5-S1
Sample Matrix: SOIL

Date Collected: 12-FEB-2004 07:20
Date Received : 12-FEB-2004
Date Reported : 17-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

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

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	88.	%	0.10	30	2540G		0212 23:00	LK
pH	9.9	SU	-	1	9045C		0212 21:30	LK
Flash Point	>150	deg F	70	1	1010		0216 10:00	ST
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		0213 15:00	JT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0213 15:00	JT
Total Metals				1	3051			
Arsenic, Total	8.1	mg/kg	0.44	54	6010B	0213 17:30	0216 13:44	MG
Barium, Total	64.	mg/kg	0.44	54	6010B	0213 17:30	0216 13:44	MG
Cadmium, Total	ND	mg/kg	0.44	54	6010B	0213 17:30	0216 13:44	MG
Chromium, Total	31.	mg/kg	0.44	54	6010B	0213 17:30	0216 13:44	MG
Lead, Total	13.	mg/kg	2.2	54	6010B	0213 17:30	0216 13:44	MG
Mercury, Total	ND	mg/kg	0.09	54	7471A	0213 15:25	0216 12:58	DM
Selenium, Total	ND	mg/kg	2.2	54	6010B	0213 17:30	0217 11:24	MG
Silver, Total	ND	mg/kg	0.44	54	6010B	0213 17:30	0216 13:44	MG
Volatile Organics by MCP 8260B/5035-High				54	8260B		0217 11:03	BT
Methylene chloride	ND	ug/kg	2500					
1,1-Dichloroethane	ND	ug/kg	380					
Chloroform	ND	ug/kg	380					
Carbon tetrachloride	ND	ug/kg	250					
1,2-Dichloropropane	ND	ug/kg	880					
Dibromochloromethane	ND	ug/kg	250					
1,1,2-Trichloroethane	ND	ug/kg	380					
Tetrachloroethene	ND	ug/kg	250					
Chlorobenzene	ND	ug/kg	250					
Trichlorofluoromethane	ND	ug/kg	1200					
1,2-Dichloroethane	ND	ug/kg	250					
1,1,1-Trichloroethane	ND	ug/kg	250					
Bromodichloromethane	ND	ug/kg	250					
trans-1,3-Dichloropropene	ND	ug/kg	250					
cis-1,3-Dichloropropene	ND	ug/kg	250					
1,1-Dichloropropene	ND	ug/kg	1200					
Bromoform	ND	ug/kg	1000					

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

Laboratory Sample Number: L0401284-02
UST-STKPL5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0217 11:03	BT
1,1,2,2-Tetrachloroethane	ND	ug/kg	250				
Benzene	ND	ug/kg	250				
Toluene	ND	ug/kg	380				
Ethylbenzene	ND	ug/kg	250				
Chloromethane	ND	ug/kg	1200				
Bromomethane	ND	ug/kg	500				
Vinyl chloride	ND	ug/kg	500				
Chloroethane	ND	ug/kg	500				
1,1-Dichloroethene	ND	ug/kg	250				
trans-1,2-Dichloroethene	ND	ug/kg	380				
Trichloroethene	ND	ug/kg	250				
1,2-Dichlorobenzene	ND	ug/kg	1200				
1,3-Dichlorobenzene	ND	ug/kg	1200				
1,4-Dichlorobenzene	ND	ug/kg	1200				
Methyl tert butyl ether	ND	ug/kg	500				
p/m-Xylene	960	ug/kg	250				
o-Xylene	760	ug/kg	250				
cis-1,2-Dichloroethene	ND	ug/kg	250				
Dibromomethane	ND	ug/kg	2500				
1,2,3-Trichloropropane	ND	ug/kg	2500				
Styrene	ND	ug/kg	250				
Dichlorodifluoromethane	ND	ug/kg	2500				
Acetone	ND	ug/kg	2500				
Carbon disulfide	ND	ug/kg	2500				
2-Butanone	ND	ug/kg	2500				
4-Methyl-2-pentanone	ND	ug/kg	2500				
2-Hexanone	ND	ug/kg	2500				
Bromochloromethane	ND	ug/kg	1200				
Tetrahydrofuran	ND	ug/kg	5000				
2,2-Dichloropropane	ND	ug/kg	1200				
1,2-Dibromoethane	ND	ug/kg	1200				
1,3-Dichloropropane	ND	ug/kg	1200				
1,1,1,2-Tetrachloroethane	ND	ug/kg	250				
Bromobenzene	ND	ug/kg	1200				
n-Butylbenzene	1100	ug/kg	250				
sec-Butylbenzene	460	ug/kg	250				
tert-Butylbenzene	ND	ug/kg	1200				
o-Chlorotoluene	ND	ug/kg	1200				
p-Chlorotoluene	ND	ug/kg	1200				
1,2-Dibromo-3-chloropropane	ND	ug/kg	1200				
Hexachlorobutadiene	ND	ug/kg	1200				
Isopropylbenzene	ND	ug/kg	250				
p-Isopropyltoluene	500	ug/kg	250				
Naphthalene	4600	ug/kg	1200				
n-Propylbenzene	480	ug/kg	250				
1,2,3-Trichlorobenzene	ND	ug/kg	1200				
1,2,4-Trichlorobenzene	ND	ug/kg	1200				
1,3,5-Trimethylbenzene	1300	ug/kg	1200				
1,2,4-Trimethylbenzene	4000	ug/kg	1200				

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

Laboratory Sample Number: L0401284-02
UST-STKPL5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0217 11:03	BT
Ethyl ether	ND	ug/kg	1200				
Isopropyl Ether	ND	ug/kg	1000				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	1000				
Tertiary-Amyl Methyl Ether	ND	ug/kg	1000				
1,4-Dioxane	ND	ug/kg	120000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	97.0	%	70-130				
Toluene-d8	100.	%	70-130				
4-Bromofluorobenzene	94.0	%	70-130				
Dibromofluoromethane	93.0	%	70-130				
Semivolatile Organics by MCP 8270C				54 8270C	0212 16:40	0213 20:25	HL
Acenaphthene	ND	ug/kg	2800				
1,2,4-Trichlorobenzene	ND	ug/kg	2800				
Hexachlorobenzene	ND	ug/kg	2800				
Bis(2-chloroethyl)ether	ND	ug/kg	2800				
2-Chloronaphthalene	ND	ug/kg	2800				
1,2-Dichlorobenzene	ND	ug/kg	2800				
1,3-Dichlorobenzene	ND	ug/kg	2800				
1,4-Dichlorobenzene	ND	ug/kg	2800				
3,3'-Dichlorobenzidine	ND	ug/kg	5700				
2,4-Dinitrotoluene	ND	ug/kg	2800				
2,6-Dinitrotoluene	ND	ug/kg	2800				
Azobenzene	ND	ug/kg	2800				
Fluoranthene	ND	ug/kg	2800				
4-Bromophenyl phenyl ether	ND	ug/kg	2800				
Bis(2-chloroisopropyl)ether	ND	ug/kg	2800				
Bis(2-chloroethoxy)methane	ND	ug/kg	2800				
Hexachlorobutadiene	ND	ug/kg	5700				
Hexachloroethane	ND	ug/kg	2800				
Isophorone	ND	ug/kg	2800				
Naphthalene	3600	ug/kg	2800				
Nitrobenzene	ND	ug/kg	2800				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	5700				
Butyl benzyl phthalate	ND	ug/kg	2800				
Di-n-butylphthalate	ND	ug/kg	2800				
Di-n-octylphthalate	ND	ug/kg	2800				
Diethyl phthalate	ND	ug/kg	2800				
Dimethyl phthalate	ND	ug/kg	2800				
Benzo(a)anthracene	ND	ug/kg	2800				
Benzo(a)pyrene	ND	ug/kg	2800				
Benzo(b)fluoranthene	ND	ug/kg	2800				
Benzo(k)fluoranthene	ND	ug/kg	2800				
Chrysene	ND	ug/kg	2800				
Acenaphthylene	ND	ug/kg	2800				
Anthracene	ND	ug/kg	2800				
Benzo(ghi)perylene	ND	ug/kg	2800				
Fluorene	ND	ug/kg	2800				

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

Laboratory Sample Number: L0401284-02
UST-STKPL5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by MCP 8270C continued				54 8270C	0212 16:40	0213 20:25	HL
Phenanthrene	4600	ug/kg	2800				
Dibenzo(a,h)anthracene	ND	ug/kg	2800				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	2800				
Pyrene	ND	ug/kg	2800				
Aniline	ND	ug/kg	5700				
4-Chloroaniline	ND	ug/kg	2800				
Dibenzofuran	ND	ug/kg	2800				
2-Methylnaphthalene	14000	ug/kg	2800				
Acetophenone	ND	ug/kg	11000				
2,4,6-Trichlorophenol	ND	ug/kg	2800				
2-Chlorophenol	ND	ug/kg	3400				
2,4-Dichlorophenol	ND	ug/kg	5700				
2,4-Dimethylphenol	ND	ug/kg	2800				
2-Nitrophenol	ND	ug/kg	11000				
4-Nitrophenol	ND	ug/kg	5700				
2,4-Dinitrophenol	ND	ug/kg	11000				
Pentachlorophenol	ND	ug/kg	11000				
Phenol	ND	ug/kg	4000				
2-Methylphenol	ND	ug/kg	3400				
3-Methylphenol/4-Methylphenol	ND	ug/kg	3400				
2,4,5-Trichlorophenol	ND	ug/kg	2800				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	67.0	%	30-130				
Phenol-d6	77.0	%	30-130				
Nitrobenzene-d5	79.0	%	30-130				
2-Fluorobiphenyl	86.0	%	30-130				
2,4,6-Tribromophenol	37.0	%	30-130				
4-Terphenyl-d14	87.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0214 13:37	AK
Aroclor 1221	ND	ug/kg	56.8				
Aroclor 1232	ND	ug/kg	56.8				
Aroclor 1242/1016	ND	ug/kg	56.8				
Aroclor 1248	ND	ug/kg	56.8				
Aroclor 1254	ND	ug/kg	56.8				
Aroclor 1260	ND	ug/kg	56.8				
Aroclor 1262	ND	ug/kg	56.8				
Aroclor 1268	ND	ug/kg	56.8				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	52.0	%	30-150				
Decachlorobiphenyl	51.0	%	30-150				
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0214 13:37	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	49.0	%	30-150				
Decachlorobiphenyl	49.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401284-02
UST-STKPL5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M				1 8100M	0212 21:00	0213 23:45	JB
Mineral Spirits	ND	mg/kg	110				
Gasoline	ND	mg/kg	110				
Fuel Oil #2/Diesel	ND	mg/kg	110				
Fuel Oil #4	ND	mg/kg	110				
Fuel Oil #6	ND	mg/kg	110				
Motor Oil	ND	mg/kg	110				
Kerosene	ND	mg/kg	110				
Transformer Oil	ND	mg/kg	110				
Unknown Hydrocarbon	330	mg/kg	110				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	68.0	%	40-140				

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: L0401284-03
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 11-FEB-2004 09:20
Date Received : 12-FEB-2004
Date Reported : 17-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High				54 8260B		0214 15:37	BT
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401284-03
TRIP BLANK

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0214 15:37	BT
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	93.0	%	70-130
Toluene-d8	98.0	%	70-130
4-Bromofluorobenzene	99.0	%	70-130
Dibromofluoromethane	88.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401284

Parameter	Value 1	Value 2	Units	RPD	RPD Limits	
Solids, Total for sample(s) 01-02 (L0401257-01, WG162954)						
Solids, Total	78.	78.	%	0		
pH for sample(s) 01-02 (L0401284-01, WG162953)						
pH	6.6	6.8	SU	3		
Cyanide, Reactive for sample(s) 01-02 (L0401145-07, WG163076)						
Cyanide, Reactive	ND	ND	mg/kg	NC		
Sulfide, Reactive for sample(s) 01-02 (L0401145-07, WG163075)						
Sulfide, Reactive	12.	12.	mg/kg	0		
Hydrocarbon Scan by GC 8100M for sample(s) 01-02 (L0401164-02, WG162987)						
Mineral Spirits	ND	ND	mg/kg	NC	40	
Gasoline	ND	ND	mg/kg	NC	40	
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40	
Fuel Oil #4	ND	ND	mg/kg	NC	40	
Fuel Oil #6	ND	ND	mg/kg	NC	40	
Motor Oil	ND	ND	mg/kg	NC	40	
Kerosene	ND	ND	mg/kg	NC	40	
Transformer Oil	ND	ND	mg/kg	NC	40	
Unknown Hydrocarbon	250	200	mg/kg	22	40	
Surrogate(s)	Recovery					QC Criteria
o-Terphenyl	61.0	65.0	%	6		40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Parameter	% Recovery	QC Criteria
pH LCS for sample(s) 01-02 (WG162953)		
pH	101	
Sulfide, Reactive LCS for sample(s) 01-02 (WG163075)		
Sulfide, Reactive	84	
Total Metals LCS for sample(s) 01-02 (WG163108)		
Arsenic, Total	110	75-125
Barium, Total	100	75-125
Cadmium, Total	99	75-125
Chromium, Total	101	75-125
Lead, Total	104	75-125
Selenium, Total	110	75-125
Silver, Total	101	75-125
Total Metals LCS for sample(s) 01-02 (WG163033)		
Mercury, Total	97	75-125
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01,03 (WG162641)		
Methylene chloride	99	70-130
1,1-Dichloroethane	95	70-130
Chloroform	98	70-130
Carbon tetrachloride	98	70-130
1,2-Dichloropropane	99	70-130
Dibromochloromethane	95	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	101	70-130
Chlorobenzene	94	70-130
Trichlorofluoromethane	96	70-130
1,2-Dichloroethane	96	70-130
1,1,1-Trichloroethane	100	70-130
Bromodichloromethane	98	70-130
trans-1,3-Dichloropropene	91	70-130
cis-1,3-Dichloropropene	97	70-130
1,1-Dichloropropene	92	70-130
Bromoform	98	70-130
1,1,2,2-Tetrachloroethane	91	70-130
Benzene	93	70-130
Toluene	96	70-130
Ethylbenzene	99	70-130
Chloromethane	102	70-130
Bromomethane	112	70-130
Vinyl chloride	117	70-130
Chloroethane	99	70-130
1,1-Dichloroethene	86	70-130
trans-1,2-Dichloroethene	89	70-130
Trichloroethene	102	70-130
1,2-Dichlorobenzene	96	70-130
1,3-Dichlorobenzene	96	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01,03 (WG162641)		
1,4-Dichlorobenzene	95	70-130
Methyl tert butyl ether	98	70-130
p/m-Xylene	99	70-130
o-Xylene	98	70-130
cis-1,2-Dichloroethene	91	70-130
Dibromomethane	97	70-130
1,2,3-Trichloropropane	97	70-130
Styrene	101	70-130
Dichlorodifluoromethane	103	70-130
Acetone	102	70-130
Carbon disulfide	97	70-130
2-Butanone	99	70-130
4-Methyl-2-pentanone	96	70-130
2-Hexanone	100	70-130
Bromochloromethane	100	70-130
Tetrahydrofuran	95	70-130
2,2-Dichloropropane	100	70-130
1,2-Dibromoethane	97	70-130
1,3-Dichloropropane	97	70-130
1,1,1,2-Tetrachloroethane	101	70-130
Bromobenzene	99	70-130
n-Butylbenzene	96	70-130
sec-Butylbenzene	97	70-130
tert-Butylbenzene	99	70-130
o-Chlorotoluene	98	70-130
p-Chlorotoluene	98	70-130
1,2-Dibromo-3-chloropropane	95	70-130
Hexachlorobutadiene	99	70-130
Isopropylbenzene	97	70-130
p-Isopropyltoluene	100	70-130
Naphthalene	98	70-130
n-Propylbenzene	99	70-130
1,2,3-Trichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	98	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	103	70-130
Ethyl ether	99	70-130
Isopropyl Ether	96	70-130
Ethyl-Tert-Butyl-Ether	96	70-130
Tertiary-Amyl Methyl Ether	97	70-130
1,4-Dioxane	93	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130
Dibromofluoromethane	96	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 02 (WG163002)		
Methylene chloride	95	70-130
1,1-Dichloroethane	93	70-130
Chloroform	94	70-130
Carbon tetrachloride	95	70-130
1,2-Dichloropropane	97	70-130
Dibromochloromethane	92	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	101	70-130
Chlorobenzene	98	70-130
Trichlorofluoromethane	92	70-130
1,2-Dichloroethane	89	70-130
1,1,1-Trichloroethane	95	70-130
Bromodichloromethane	91	70-130
trans-1,3-Dichloropropene	90	70-130
cis-1,3-Dichloropropene	96	70-130
1,1-Dichloropropene	93	70-130
Bromoform	99	70-130
1,1,2,2-Tetrachloroethane	87	70-130
Benzene	94	70-130
Toluene	95	70-130
Ethylbenzene	101	70-130
Chloromethane	109	70-130
Bromomethane	107	70-130
Vinyl chloride	116	70-130
Chloroethane	97	70-130
1,1-Dichloroethene	92	70-130
trans-1,2-Dichloroethene	90	70-130
Trichloroethene	100	70-130
1,2-Dichlorobenzene	96	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	98	70-130
Methyl tert butyl ether	91	70-130
p/m-Xylene	102	70-130
o-Xylene	102	70-130
cis-1,2-Dichloroethene	93	70-130
Dibromomethane	93	70-130
1,2,3-Trichloropropane	93	70-130
Styrene	104	70-130
Dichlorodifluoromethane	94	70-130
Acetone	92	70-130
Carbon disulfide	97	70-130
2-Butanone	90	70-130
4-Methyl-2-pentanone	98	70-130
2-Hexanone	95	70-130
Bromochloromethane	100	70-130
Tetrahydrofuran	90	70-130
2,2-Dichloropropane	99	70-130
1,2-Dibromoethane	96	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 02 (WG163002)		
1,3-Dichloropropane	93	70-130
1,1,1,2-Tetrachloroethane	101	70-130
Bromobenzene	101	70-130
n-Butylbenzene	101	70-130
sec-Butylbenzene	101	70-130
tert-Butylbenzene	102	70-130
o-Chlorotoluene	99	70-130
p-Chlorotoluene	98	70-130
1,2-Dibromo-3-chloropropane	90	70-130
Hexachlorobutadiene	102	70-130
Isopropylbenzene	100	70-130
p-Isopropyltoluene	103	70-130
Naphthalene	104	70-130
n-Propylbenzene	102	70-130
1,2,3-Trichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	100	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	105	70-130
Ethyl ether	93	70-130
Isopropyl Ether	92	70-130
Ethyl-Tert-Butyl-Ether	94	70-130
Tertiary-Amyl Methyl Ether	97	70-130
1,4-Dioxane	89	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130
Dibromofluoromethane	97	70-130
Semivolatile Organics by MCP 8270C LCS for sample(s) 01-02 (WG162976)		
Acenaphthene	68	40-140
1,2,4-Trichlorobenzene	60	40-140
Hexachlorobenzene	90	40-140
Bis(2-chloroethyl)ether	55	40-140
2-Chloronaphthalene	68	40-140
1,2-Dichlorobenzene	54	40-140
1,3-Dichlorobenzene	54	40-140
1,4-Dichlorobenzene	55	40-140
3,3'-Dichlorobenzidine	88	40-140
2,4-Dinitrotoluene	120	40-140
2,6-Dinitrotoluene	100	40-140
Azobenzene	91	40-140
Fluoranthene	97	40-140
4-Bromophenyl phenyl ether	89	40-140
Bis(2-chloroisopropyl)ether	53	40-140
Bis(2-chloroethoxy)methane	53	40-140
Hexachlorobutadiene	61	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 01-02 (WG162976)		
Hexachloroethane	54	40-140
Isophorone	54	40-140
Naphthalene	59	40-140
Nitrobenzene	59	40-140
Bis(2-Ethylhexyl)phthalate	110	40-140
Butyl benzyl phthalate	100	40-140
Di-n-butylphthalate	100	40-140
Di-n-octylphthalate	120	40-140
Diethyl phthalate	96	40-140
Dimethyl phthalate	84	40-140
Benzo(a)anthracene	100	40-140
Benzo(a)pyrene	100	40-140
Benzo(b)fluoranthene	110	40-140
Benzo(k)fluoranthene	100	40-140
Chrysene	95	40-140
Acenaphthylene	66	40-140
Anthracene	94	40-140
Benzo(ghi)perylene	110	40-140
Fluorene	82	40-140
Phenanthrene	91	40-140
Dibenzo(a,h)anthracene	110	40-140
Indeno(1,2,3-cd)Pyrene	110	40-140
Pyrene	96	40-140
Aniline	39	40-140
4-Chloroaniline	50	40-140
Dibenzofuran	72	40-140
2-Methylnaphthalene	59	40-140
Acetophenone	55	40-140
2,4,6-Trichlorophenol	75	30-130
2-Chlorophenol	54	30-130
2,4-Dichlorophenol	59	30-130
2,4-Dimethylphenol	48	30-130
2-Nitrophenol	56	30-130
4-Nitrophenol	79	30-130
2,4-Dinitrophenol	81	30-130
Pentachlorophenol	85	30-130
Phenol	51	30-130
2-Methylphenol	51	30-130
3-Methylphenol/4-Methylphenol	51	30-130
2,4,5-Trichlorophenol	80	30-130
Surrogate(s)		
2-Fluorophenol	48	30-130
Phenol-d6	51	30-130
Nitrobenzene-d5	52	30-130
2-Fluorobiphenyl	59	30-130
2,4,6-Tribromophenol	43	30-130
4-Terphenyl-d14	77	30-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401284

Continued

Parameter	% Recovery	QC Criteria
Polychlorinated Biphenyls by MCP 8082 LCS for sample(s) 01-02 (WG162984)		
Aroclor 1242/1016	80	40-140
Aroclor 1260	88	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	69	30-150
2,4,5,6-Tetrachloro-m-xylene	68	30-150
Decachlorobiphenyl	81	30-150
Decachlorobiphenyl	74	30-150
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01-02 (WG162987)		
Petroleum Spike	71	40-140
Surrogate(s)		
o-Terphenyl	70	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG163076-1)								
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		0213 15:00	JT
Blank Analysis for sample(s) 01-02 (WG163075-1)								
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0213 15:00	JT
Blank Analysis for sample(s) 01-02 (WG163108-1)								
Total Metals				1	3051			
Arsenic, Total	ND	mg/kg	0.40	54	6010B	0213 17:30	0216 12:20	MG
Barium, Total	ND	mg/kg	0.40	54	6010B	0213 17:30	0216 12:20	MG
Cadmium, Total	ND	mg/kg	0.40	54	6010B	0213 17:30	0216 12:20	MG
Chromium, Total	ND	mg/kg	0.40	54	6010B	0213 17:30	0216 12:20	MG
Lead, Total	ND	mg/kg	2.0	54	6010B	0213 17:30	0216 12:20	MG
Selenium, Total	ND	mg/kg	0.80	54	6010B	0213 17:30	0216 12:20	MG
Silver, Total	ND	mg/kg	0.40	54	6010B	0213 17:30	0216 12:20	MG
Blank Analysis for sample(s) 01-02 (WG163033-2)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	54	7471A	0213 15:25	0216 12:29	DM
Blank Analysis for sample(s) 01,03 (WG162641-4)								
Volatile Organics by MCP 8260B/5035-High				54	8260B		0214 09:59	BT
Methylene chloride	ND	ug/kg	500					
1,1-Dichloroethane	ND	ug/kg	75.					
Chloroform	ND	ug/kg	75.					
Carbon tetrachloride	ND	ug/kg	50.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	50.					
1,1,2-Trichloroethane	ND	ug/kg	75.					
Tetrachloroethene	ND	ug/kg	50.					
Chlorobenzene	ND	ug/kg	50.					
Trichlorofluoromethane	ND	ug/kg	250					
1,2-Dichloroethane	ND	ug/kg	50.					
1,1,1-Trichloroethane	ND	ug/kg	50.					
Bromodichloromethane	ND	ug/kg	50.					
trans-1,3-Dichloropropene	ND	ug/kg	50.					
cis-1,3-Dichloropropene	ND	ug/kg	50.					
1,1-Dichloropropene	ND	ug/kg	250					
Bromoform	ND	ug/kg	200					
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.					
Benzene	ND	ug/kg	50.					
Toluene	ND	ug/kg	75.					
Ethylbenzene	ND	ug/kg	50.					
Chloromethane	ND	ug/kg	250					
Bromomethane	ND	ug/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01,03 (WG162641-4)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0214 09:59	BT
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01,03 (WG162641-4)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0214 09:59	BT
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	101.	%	70-130				
Toluene-d8	98.0	%	70-130				
4-Bromofluorobenzene	98.0	%	70-130				
Dibromofluoromethane	91.0	%	70-130				
Blank Analysis for sample(s) 02 (WG163002-6)							
Volatile Organics by MCP 8260B/5035-High				54 8260B		0217 10:14	BT
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG163002-6)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0217 10:14	BT
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	96.0	%	70-130				
Toluene-d8	104.	%	70-130				
4-Bromofluorobenzene	99.0	%	70-130				
Dibromofluoromethane	93.0	%	70-130				
Blank Analysis for sample(s) 01-02 (WG162976-1)							
Semivolatile Organics by MCP 8270C				54 8270C	0212 16:40	0213 15:04	HL
Acenaphthene	ND	ug/kg	500				
1,2,4-Trichlorobenzene	ND	ug/kg	500				
Hexachlorobenzene	ND	ug/kg	500				
Bis(2-chloroethyl)ether	ND	ug/kg	500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG162976-1)							
Semivolatile Organics by MCP 8270C continued				54 8270C	0212 16:40	0213 15:04	HL
2-Chloronaphthalene	ND	ug/kg	500				
1,2-Dichlorobenzene	ND	ug/kg	500				
1,3-Dichlorobenzene	ND	ug/kg	500				
1,4-Dichlorobenzene	ND	ug/kg	500				
3,3'-Dichlorobenzidine	ND	ug/kg	1000				
2,4-Dinitrotoluene	ND	ug/kg	500				
2,6-Dinitrotoluene	ND	ug/kg	500				
Azobenzene	ND	ug/kg	500				
Fluoranthene	ND	ug/kg	500				
4-Bromophenyl phenyl ether	ND	ug/kg	500				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	500				
Hexachlorobutadiene	ND	ug/kg	1000				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	500				
Naphthalene	ND	ug/kg	500				
Nitrobenzene	ND	ug/kg	500				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	1000				
Butyl benzyl phthalate	ND	ug/kg	500				
Di-n-butylphthalate	ND	ug/kg	500				
Di-n-octylphthalate	ND	ug/kg	500				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	500				
Benzo(a)pyrene	ND	ug/kg	500				
Benzo(b)fluoranthene	ND	ug/kg	500				
Benzo(k)fluoranthene	ND	ug/kg	500				
Chrysene	ND	ug/kg	500				
Acenaphthylene	ND	ug/kg	500				
Anthracene	ND	ug/kg	500				
Benzo(ghi)perylene	ND	ug/kg	500				
Fluorene	ND	ug/kg	500				
Phenanthrene	ND	ug/kg	500				
Dibenzo(a,h)anthracene	ND	ug/kg	500				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	500				
Pyrene	ND	ug/kg	500				
Aniline	ND	ug/kg	1000				
4-Chloroaniline	ND	ug/kg	500				
Dibenzofuran	ND	ug/kg	500				
2-Methylnaphthalene	ND	ug/kg	500				
Acetophenone	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	500				
2-Chlorophenol	ND	ug/kg	600				
2,4-Dichlorophenol	ND	ug/kg	1000				
2,4-Dimethylphenol	ND	ug/kg	500				
2-Nitrophenol	ND	ug/kg	2000				
4-Nitrophenol	ND	ug/kg	1000				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG162976-1)							
Semivolatile Organics by MCP 8270C continued				54 8270C	0212 16:40	0213 15:04	HL
2,4-Dinitrophenol	ND	ug/kg	2000				
Pentachlorophenol	ND	ug/kg	2000				
Phenol	ND	ug/kg	700				
2-Methylphenol	ND	ug/kg	600				
3-Methylphenol/4-Methylphenol	ND	ug/kg	600				
2,4,5-Trichlorophenol	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	53.0	%	30-130				
Phenol-d6	55.0	%	30-130				
Nitrobenzene-d5	58.0	%	30-130				
2-Fluorobiphenyl	60.0	%	30-130				
2,4,6-Tribromophenol	36.0	%	30-130				
4-Terphenyl-d14	81.0	%	30-130				
Blank Analysis for sample(s) 01-02 (WG162984-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0213 11:39	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	96.0	%	30-150				
Decachlorobiphenyl	112.	%	30-150				
Blank Analysis for sample(s) 01-02 (WG162984-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0212 21:30	0213 11:39	AK
Aroclor 1221	ND	ug/kg	200.				
Aroclor 1232	ND	ug/kg	200.				
Aroclor 1242/1016	ND	ug/kg	200.				
Aroclor 1248	ND	ug/kg	200.				
Aroclor 1254	ND	ug/kg	200.				
Aroclor 1260	ND	ug/kg	200.				
Aroclor 1262	ND	ug/kg	200.				
Aroclor 1268	ND	ug/kg	200.				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	92.0	%	30-150				
Decachlorobiphenyl	101.	%	30-150				
Blank Analysis for sample(s) 01-02 (WG162987-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0212 21:00	0213 18:27	JB
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401284

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG162987-1)							
Hydrocarbon Scan by GC 8100M continued				1 8100M	0212 21:00	0213 18:27	JB
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	72.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401284

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
L0401284-01A	Vial MeOH preserved	A	NA	0.4 C	Y	Absent	MCP-8260H
L0401284-01B	Amber 250ml unpreserved	A	NA	0.4 C	Y	Absent	AG-TI, AS-TI, BA-TI, CD-TI, CR-TI, HG-T, MCP-8082, MCP-8270, PB-TI, PREPT, SE-TI, TPH-8100
L0401284-01C	Amber 250ml unpreserved	A	NA	0.4 C	Y	Absent	FLASH, PH-9045, REACTCN, REACTS, TS
L0401284-02A	Vial MeOH preserved	A	NA	0.4 C	Y	Absent	MCP-8260H
L0401284-02B	Amber 250ml unpreserved	A	NA	0.4 C	Y	Absent	AG-TI, AS-TI, BA-TI, CD-TI, CR-TI, HG-T, MCP-8082, MCP-8270, PB-TI, PREPT, SE-TI, TPH-8100
L0401284-02C	Amber 250ml unpreserved	A	NA	0.4 C	Y	Absent	FLASH, PH-9045, REACTCN, REACTS, TS
L0401284-03A	Vial MeOH preserved	A	NA	0.4 C	Y	Absent	MCP-8260H

Container Comments

Container ID	Comments

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

Page of

H&A FILE NO. 30660-000
PROJECT NAME Burbank School Oil Release
H&A CONTACT Matt Coombs

LABORATORY Alpha
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 2-3 DAYS
PROJECT MANAGER Joel Mackey

Sample No.	Date	Time	Depth	Type	Analysis Requested: (1) VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	(2) TPH (specify)	TCLP (specify)	(3) Reactivity Ignitability Corrosivity	(4)	(5)		Number of Containers
UST-STKPL4-S1	2/12/04	0930	—	SOIL	X			X			X		X	X	X		3
UST-STKPL5-S1	"	0920	—	"	X			X			X		X	X	X		3
TRIP BLK 8260 HIGH	2/11/04	720	—	—	X												

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.
(1) VOCs (8260 HIGH)
(2) TPH by GC-FID (8100M)
(3) Waste Characteristics (flash, reactivity, pH)
(4) RCRA 8 Metals
(5) SVOCs (8270)

Sampled and Relinquished by	Received by
Sign Todd R Burton	Sign
Print Todd Burner	Print
Firm H&A	Firm
Date 2/12/04 Time	Date 2/12/04 Time 1910
Relinquished by	**Received by**
Sign	Sign Denise Ladebauche
Print	Print D. Ladebauche
Firm	Firm Alpha
Date 2/12/04 Time 1910	Date 2/12/04 Time 1910
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Volume

SOLID	VOA Vial	Amber Glass	Clear Glass	Preservative	Volume
	X	X	X	X	X
		1	1	1	1
		2oz	2oz	2oz	2oz

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

YES The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NO Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

____ This Chain of Custody Record (specify) ____ includes ✓ does not include samples defined as Drinking Water Samples.

N/A If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ____ analyze ____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☑ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☑ GW3

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0401423

Date Received: 17-FEB-2004

Date Reported: 18-FEB-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401423-01	BG1-S1	BELMONT, MA
L0401423-02	BG2-S1	BELMONT, MA
L0401423-03	BG3-S1	BELMONT, MA
L0401423-04	CCP-SW1-S1	BELMONT, MA
L0401423-05	CCP-SW2-S1	BELMONT, MA

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
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: L0401423-01
BG1-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 14:00
Date Received : 17-FEB-2004
Date Reported : 18-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	58.	%	0.10	30 2540G		0218 08:15	ED
Hydrocarbon Scan by GC 8100M				1 8100M	0217 15:40	0218 13:20	JB
Mineral Spirits	ND	mg/kg	170				
Gasoline	ND	mg/kg	170				
Fuel Oil #2/Diesel	ND	mg/kg	170				
Fuel Oil #4	ND	mg/kg	170				
Fuel Oil #6	ND	mg/kg	170				
Motor Oil	ND	mg/kg	170				
Kerosene	ND	mg/kg	170				
Transformer Oil	ND	mg/kg	170				
Unknown Hydrocarbon	280	mg/kg	170				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	92.0	%	40-140				

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: L0401423-02
BG2-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 13:56
Date Received : 17-FEB-2004
Date Reported : 18-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	73.	%	0.10	30 2540G		0218 08:15	ED
Hydrocarbon Scan by GC 8100M				1 8100M	0217 15:40	0218 13:20	JB
Mineral Spirits	ND	mg/kg	140				
Gasoline	ND	mg/kg	140				
Fuel Oil #2/Diesel	ND	mg/kg	140				
Fuel Oil #4	ND	mg/kg	140				
Fuel Oil #6	ND	mg/kg	140				
Motor Oil	ND	mg/kg	140				
Kerosene	ND	mg/kg	140				
Transformer Oil	ND	mg/kg	140				
Unknown Hydrocarbon	160	mg/kg	140				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	79.0	%	40-140				

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: L0401423-03
BG3-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 13:51
Date Received : 17-FEB-2004
Date Reported : 18-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30 2540G		0217 23:45	LK
Hydrocarbon Scan by GC 8100M				1 8100M	0217 15:40	0218 14:23	JB
Mineral Spirits	ND	mg/kg	120				
Gasoline	ND	mg/kg	120				
Fuel Oil #2/Diesel	ND	mg/kg	120				
Fuel Oil #4	ND	mg/kg	120				
Fuel Oil #6	ND	mg/kg	120				
Motor Oil	ND	mg/kg	120				
Kerosene	ND	mg/kg	120				
Transformer Oil	ND	mg/kg	120				
Unknown Hydrocarbon	320	mg/kg	120				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	89.0	%	40-140				

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: L0401423-04
CCP-SW1-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 09:12
Date Received : 17-FEB-2004
Date Reported : 18-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0218 08:15	ED
Hydrocarbon Scan by GC 8100M				1 8100M	0217 15:40	0218 11:17	JB
Mineral Spirits	ND	mg/kg	120				
Gasoline	ND	mg/kg	120				
Fuel Oil #2/Diesel	ND	mg/kg	120				
Fuel Oil #4	ND	mg/kg	120				
Fuel Oil #6	ND	mg/kg	120				
Motor Oil	ND	mg/kg	120				
Kerosene	ND	mg/kg	120				
Transformer Oil	ND	mg/kg	120				
Unknown Hydrocarbon	480	mg/kg	120				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	98.0	%	40-140				

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: L0401423-05
CCP-SW2-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 11:00
Date Received : 17-FEB-2004
Date Reported : 18-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	75.	%	0.10	30 2540G		0217 23:45	LK
Hydrocarbon Scan by GC 8100M				1 8100M	0217 15:40	0218 12:16	JB
Mineral Spirits	ND	mg/kg	130				
Gasoline	ND	mg/kg	130				
Fuel Oil #2/Diesel	ND	mg/kg	130				
Fuel Oil #4	ND	mg/kg	130				
Fuel Oil #6	ND	mg/kg	130				
Motor Oil	ND	mg/kg	130				
Kerosene	ND	mg/kg	130				
Transformer Oil	ND	mg/kg	130				
Unknown Hydrocarbon	320	mg/kg	130				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	88.0	%	40-140				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401423

Parameter	Value 1	Value 2	Units	RPD	RPD Limits	
Solids, Total for sample(s) 03,05 (L0401300-01, WG163317)						
Solids, Total	91.	91.	%	0		
Solids, Total for sample(s) 01-02,04 (L0401423-01, WG163328)						
Solids, Total	58.	60.	%	3		
Hydrocarbon Scan by GC 8100M for sample(s) 01-05 (L0401385-02, WG163309)						
Mineral Spirits	ND	ND	mg/kg	NC	40	
Gasoline	ND	ND	mg/kg	NC	40	
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40	
Fuel Oil #4	ND	ND	mg/kg	NC	40	
Fuel Oil #6	ND	ND	mg/kg	NC	40	
Motor Oil	ND	ND	mg/kg	NC	40	
Kerosene	ND	ND	mg/kg	NC	40	
Transformer Oil	ND	ND	mg/kg	NC	40	
Unknown Hydrocarbon	370	330	mg/kg	11	40	
Surrogate(s)	Recovery					QC Criteria
o-Terphenyl	96.0	87.0	%	10		40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401423

Parameter	% Recovery	QC Criteria
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01-05 (WG163309)		
Petroleum Spike	101	40-140
Surrogate(s)		
o-Terphenyl	99	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401423

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG163309-1)								
Hydrocarbon Scan by GC 8100M				1	8100M	0217 15:40	0218 09:08	JB
Mineral Spirits	ND	mg/kg	100					
Gasoline	ND	mg/kg	100					
Fuel Oil #2/Diesel	ND	mg/kg	100					
Fuel Oil #4	ND	mg/kg	100					
Fuel Oil #6	ND	mg/kg	100					
Motor Oil	ND	mg/kg	100					
Kerosene	ND	mg/kg	100					
Transformer Oil	ND	mg/kg	100					
Unknown Hydrocarbon	ND	mg/kg	100					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	90.0	%	40-140					

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME BROAD SCHOOL
H&A CONTACT MATT COOMBS

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE 2-17-2004
TURNAROUND TIME STD COMMENTS
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	(3) TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity	Number of Containers
BG1-S1	2/17/04	1400	—	SOIL					X	X	X			2
BG2-S1		1356	—						X	X	X			2
BG3-S1		1351	—						X	X	X			2
CCP-SW1-S1		0912	—						X	X	X			2
CCP-SW2-S1		1100	—						X	X	X			2

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) & (2) EPH/VPH & TARGET ANALYTES
(3) TPH BY 8100M
* TPH TURNAROUND 24 HRS
** EPH/TPH TURNAROUND 2-3 DAYS

Sampled and Relinquished by	Received by
Sign Todd Burke	Sign
Print Todd Burke	Print
Firm H&A	Firm
Date 2/17/04 Time 1525	Date 2/17/04 Time 1525

Relinquished by	Received by
Sign	Sign
Print	Print Asker Desai
Firm	Firm Alpha
Date 2/17/04 Time 1745	Date 2/17/04 Time 1745

Relinquished by	Received by
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID											
											VOA Vial
											Amber Glass
											Plastic Bottle
											Preservative
											Volume

SOLID											
				X							VOA Vial
					X	X					Amber Glass
											Clear Glass
				F	A	A					Preservative
				4oz	4oz	4oz					Volume

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0401424
Date Received: 17-FEB-2004
Date Reported: 20-FEB-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

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

Laboratory Job Number: L0401424
Date Reported: 20-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401424-01	BG1-SS1	BELMONT, MA
L0401424-02	BG2-SS1	BELMONT, MA
L0401424-03	BG3-SS1	BELMONT, MA
L0401424-04	CCP-SW1-S1	BELMONT, MA
L0401424-05	CCP-SW2-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401424

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0401424-01
BG1-SS1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 14:00
Date Received : 17-FEB-2004
Date Reported : 20-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	58.	%	0.10	30 2540G		0218 08:15	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-01
BG1-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0218 12:05	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	5.56
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	5.56
C9-C10 Aromatics	ND	mg/kg	5.56
C5-C8 Aliphatics, Adjusted	ND	mg/kg	5.56
C9-C12 Aliphatics, Adjusted	ND	mg/kg	5.56
Benzene	ND	mg/kg	0.278
Toluene	ND	mg/kg	0.278
Ethylbenzene	ND	mg/kg	0.278
p/m-Xylene	ND	mg/kg	0.278
o-Xylene	ND	mg/kg	0.278
Methyl tert butyl ether	ND	mg/kg	0.556
Naphthalene	ND	mg/kg	2.78

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	93.0	%	70-130
2,5-Dibromotoluene-FID	96.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-01
BG1-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0219 21:48	LL

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	23.0	mg/kg	17.2
C19-C36 Aliphatics	80.0	mg/kg	17.2
C11-C22 Aromatics, Unadjusted	182.	mg/kg	17.2
C11-C22 Aromatics, Adjusted	157.	mg/kg	17.2
Naphthalene	ND	mg/kg	0.862
2-Methylnaphthalene	ND	mg/kg	0.862
Acenaphthylene	ND	mg/kg	0.862
Acenaphthene	ND	mg/kg	0.862
Fluorene	ND	mg/kg	0.862
Phenanthrene	2.28	mg/kg	0.862
Anthracene	ND	mg/kg	0.862
Fluoranthene	3.55	mg/kg	0.862
Pyrene	3.85	mg/kg	0.862
Benzo(a)anthracene	2.03	mg/kg	0.862
Chrysene	2.53	mg/kg	0.862
Benzo(b)fluoranthene	2.55	mg/kg	0.862
Benzo(k)fluoranthene	1.95	mg/kg	0.862
Benzo(a)pyrene	2.47	mg/kg	0.862
Indeno(1,2,3-cd)Pyrene	1.55	mg/kg	0.862
Dibenzo(a,h)anthracene	ND	mg/kg	0.862
Benzo(g,h,i)perylene	1.59	mg/kg	0.862

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	71.0	%	40-140
o-Terphenyl	100.	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	84.0	%	40-140

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: L0401424-02
BG2-SS1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 13:56
Date Received : 17-FEB-2004
Date Reported : 20-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	73.	%	0.10	30 2540G		0218 08:15	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-02
BG2-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0218 14:37	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	4.19
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	4.19
C9-C10 Aromatics	ND	mg/kg	4.19
C5-C8 Aliphatics, Adjusted	ND	mg/kg	4.19
C9-C12 Aliphatics, Adjusted	ND	mg/kg	4.19
Benzene	ND	mg/kg	0.210
Toluene	ND	mg/kg	0.210
Ethylbenzene	ND	mg/kg	0.210
p/m-Xylene	ND	mg/kg	0.210
o-Xylene	ND	mg/kg	0.210
Methyl tert butyl ether	ND	mg/kg	0.419
Naphthalene	ND	mg/kg	2.10

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	92.0	%	70-130
2,5-Dibromotoluene-FID	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: L0401424-02
BG2-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0219 22:34	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	15.0	mg/kg	13.7
C19-C36 Aliphatics	30.5	mg/kg	13.7
C11-C22 Aromatics, Unadjusted	31.4	mg/kg	13.7
C11-C22 Aromatics, Adjusted	31.4	mg/kg	13.7
Naphthalene	ND	mg/kg	0.685
2-Methylnaphthalene	ND	mg/kg	0.685
Acenaphthylene	ND	mg/kg	0.685
Acenaphthene	ND	mg/kg	0.685
Fluorene	ND	mg/kg	0.685
Phenanthrene	ND	mg/kg	0.685
Anthracene	ND	mg/kg	0.685
Fluoranthene	ND	mg/kg	0.685
Pyrene	ND	mg/kg	0.685
Benzo(a)anthracene	ND	mg/kg	0.685
Chrysene	ND	mg/kg	0.685
Benzo(b)fluoranthene	ND	mg/kg	0.685
Benzo(k)fluoranthene	ND	mg/kg	0.685
Benzo(a)pyrene	ND	mg/kg	0.685
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.685
Dibenzo(a,h)anthracene	ND	mg/kg	0.685
Benzo(g,h,i)perylene	ND	mg/kg	0.685

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	70.0	%	40-140
o-Terphenyl	79.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	83.0	%	40-140

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: L0401424-03
BG3-SS1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 13:51
Date Received : 17-FEB-2004
Date Reported : 20-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30 2540G		0217 23:45	ST

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-03
BG3-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0218 15:28	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.77
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.77
C9-C10 Aromatics	ND	mg/kg	2.77
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.77
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.77
Benzene	ND	mg/kg	0.138
Toluene	ND	mg/kg	0.138
Ethylbenzene	ND	mg/kg	0.138
p/m-Xylene	ND	mg/kg	0.138
o-Xylene	ND	mg/kg	0.138
Methyl tert butyl ether	ND	mg/kg	0.277
Naphthalene	ND	mg/kg	1.38

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	90.0	%	70-130
2,5-Dibromotoluene-FID	95.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-03
BG3-SS1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0219 23:19	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.6
C19-C36 Aliphatics	32.3	mg/kg	11.6
C11-C22 Aromatics, Unadjusted	41.8	mg/kg	11.6
C11-C22 Aromatics, Adjusted	41.8	mg/kg	11.6
Naphthalene	ND	mg/kg	0.581
2-Methylnaphthalene	ND	mg/kg	0.581
Acenaphthylene	ND	mg/kg	0.581
Acenaphthene	ND	mg/kg	0.581
Fluorene	ND	mg/kg	0.581
Phenanthrene	ND	mg/kg	0.581
Anthracene	ND	mg/kg	0.581
Fluoranthene	ND	mg/kg	0.581
Pyrene	ND	mg/kg	0.581
Benzo(a)anthracene	ND	mg/kg	0.581
Chrysene	ND	mg/kg	0.581
Benzo(b)fluoranthene	ND	mg/kg	0.581
Benzo(k)fluoranthene	ND	mg/kg	0.581
Benzo(a)pyrene	ND	mg/kg	0.581
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.581
Dibenzo(a,h)anthracene	ND	mg/kg	0.581
Benzo(g,h,i)perylene	ND	mg/kg	0.581

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	62.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	70.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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: L0401424-04
CCP-SW1-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 09:12
Date Received : 17-FEB-2004
Date Reported : 20-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0218 08:15	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-04
CCP-SW1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0218 16:18	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.75
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.75
C9-C10 Aromatics	ND	mg/kg	2.75
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.75
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.75
Benzene	ND	mg/kg	0.138
Toluene	ND	mg/kg	0.138
Ethylbenzene	ND	mg/kg	0.138
p/m-Xylene	ND	mg/kg	0.138
o-Xylene	ND	mg/kg	0.138
Methyl tert butyl ether	ND	mg/kg	0.275
Naphthalene	ND	mg/kg	1.38

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	99.0	%	70-130
2,5-Dibromotoluene-FID	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: L0401424-04
CCP-SW1-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0220 00:05	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	42.2	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	161.	mg/kg	12.2
C11-C22 Aromatics, Adjusted	135.	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	1.09	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	2.09	mg/kg	0.610
Anthracene	0.782	mg/kg	0.610
Fluoranthene	2.94	mg/kg	0.610
Pyrene	4.04	mg/kg	0.610
Benzo(a)anthracene	2.05	mg/kg	0.610
Chrysene	2.50	mg/kg	0.610
Benzo(b)fluoranthene	2.18	mg/kg	0.610
Benzo(k)fluoranthene	2.56	mg/kg	0.610
Benzo(a)pyrene	2.55	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	1.62	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	1.88	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	57.0	%	40-140
o-Terphenyl	108.	%	40-140
2-Fluorobiphenyl	70.0	%	40-140
2-Bromonaphthalene	82.0	%	40-140

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: L0401424-05
CCP-SW2-S1
Sample Matrix: SOIL

Date Collected: 17-FEB-2004 11:00
Date Received : 17-FEB-2004
Date Reported : 20-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	75.	%	0.10	30 2540G		0217 23:45	ST

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

Laboratory Sample Number: L0401424-05
CCP-SW2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0218 17:09	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.82
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.82
C9-C10 Aromatics	ND	mg/kg	2.82
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.82
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.82
Benzene	ND	mg/kg	0.141
Toluene	ND	mg/kg	0.141
Ethylbenzene	ND	mg/kg	0.141
p/m-Xylene	ND	mg/kg	0.141
o-Xylene	ND	mg/kg	0.141
Methyl tert butyl ether	ND	mg/kg	0.282
Naphthalene	ND	mg/kg	1.41

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	79.0	%	70-130
2,5-Dibromotoluene-FID	86.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401424-05
CCP-SW2-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0220 00:51	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	13.3
C19-C36 Aliphatics	28.4	mg/kg	13.3
C11-C22 Aromatics, Unadjusted	44.0	mg/kg	13.3
C11-C22 Aromatics, Adjusted	42.5	mg/kg	13.3
Naphthalene	ND	mg/kg	0.667
2-Methylnaphthalene	ND	mg/kg	0.667
Acenaphthylene	ND	mg/kg	0.667
Acenaphthene	ND	mg/kg	0.667
Fluorene	ND	mg/kg	0.667
Phenanthrene	ND	mg/kg	0.667
Anthracene	ND	mg/kg	0.667
Fluoranthene	0.690	mg/kg	0.667
Pyrene	0.782	mg/kg	0.667
Benzo(a)anthracene	ND	mg/kg	0.667
Chrysene	ND	mg/kg	0.667
Benzo(b)fluoranthene	ND	mg/kg	0.667
Benzo(k)fluoranthene	ND	mg/kg	0.667
Benzo(a)pyrene	ND	mg/kg	0.667
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.667
Dibenzo(a,h)anthracene	ND	mg/kg	0.667
Benzo(g,h,i)perylene	ND	mg/kg	0.667

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	56.0	%	40-140
o-Terphenyl	77.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401424

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02,04 (L0401423-01, WG163328)					
Solids, Total	58.	60.	%	3	
Volatile Petroleum Hydrocarbons for sample(s) 01-05 (L0401424-01, WG163439)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	93.0	87.0	%	7	70-130
2,5-Dibromotoluene-FID	96.0	93.0	%	3	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (L0401328-02, WG163304)					
C9-C18 Aliphatics	ND	10.5	mg/kg	NC	50
C19-C36 Aliphatics	12.9	13.2	mg/kg	2	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	49.0	55.0	%	12	40-140
o-Terphenyl	66.0	63.0	%	5	40-140
2-Fluorobiphenyl	81.0	69.0	%	16	40-140
2-Bromonaphthalene	83.0	74.0	%	11	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401424

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG163439)		
Benzene	109	70-130
Toluene	99	70-130
Ethylbenzene	114	70-130
p/m-Xylene	100	70-130
o-Xylene	103	70-130
Methyl tert butyl ether	94	70-130
Naphthalene	107	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	104	70-130
2,5-Dibromotoluene-FID	106	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG163304)		
Naphthalene	40	40-140
Acenaphthene	47	40-140
Anthracene	79	40-140
Pyrene	80	40-140
Chrysene	84	40-140
Nonane (C9)	47	40-140
Tetradecane (C14)	53	40-140
Nonadecane (C19)	74	40-140
Eicosane (C20)	73	40-140
Octacosane (C28)	70	40-140
Surrogate(s)		
Chloro-Octadecane	60	40-140
o-Terphenyl	92	40-140
2-Fluorobiphenyl	63	40-140
2-Bromonaphthalene	71	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401424

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG163439-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0218 10:00	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	93.0	%	70-130				
2,5-Dibromotoluene-FID	98.0	%	70-130				
Blank Analysis for sample(s) 01-05 (WG163304-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0217 17:25	0220 10:34	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	55.0	%	40-140				
o-Terphenyl	56.0	%	40-140				
2-Fluorobiphenyl	60.0	%	40-140				
2-Bromonaphthalene	60.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401424

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
L0401424-01A	Vial MeOH preserved	A	N/A	0.6 C	Y	Absent	VPH-DELUX
L0401424-01B	Amber 100ml unpreserved	A	N/A	0.6 C	Y	Absent	EPH-DELUX
L0401424-02A	Vial MeOH preserved	A	N/A	0.6 C	Y	Absent	VPH-DELUX
L0401424-02B	Amber 100ml unpreserved	A	N/A	0.6 C	Y	Absent	EPH-DELUX
L0401424-03A	Vial MeOH preserved	A	N/A	0.6 C	Y	Absent	VPH-DELUX
L0401424-03B	Amber 100ml unpreserved	A	N/A	0.6 C	Y	Absent	EPH-DELUX
L0401424-04A	Vial MeOH preserved	A	N/A	0.6 C	Y	Absent	VPH-DELUX
L0401424-04B	Amber 250ml unpreserved	A	N/A	0.6 C	Y	Absent	EPH-DELUX
L0401424-05A	Vial MeOH preserved	A	N/A	0.6 C	Y	Absent	VPH-DELUX
L0401424-05B	Amber 250ml unpreserved	A	N/A	0.6 C	Y	Absent	EPH-DELUX

Container Comments

Container ID	Comments

CHAIN OF CUSTODY RECORD

ALDRICH 465 Medford St., Suite 2200, Boston, MA 02129-1400

Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	30660-000	LABORATORY	ALPHA
PROJECT NAME	BROOK SCHOOL	ADDRESS	
H&A CONTACT	MATT COMBS	CONTACT	
		DELIVERY DATE	2-17-2004
		TURNAROUND TIME	SEE COMMENTS
		PROJECT MANAGER	JOEL MOONEY

Sample No.	Date	Time	Depth	Type	Analysis Requested: VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	(3) TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
BG1-S1	2/17/04	1400	—	SOIL					X	X	X						2
BG2-S1		1356	—						X	X	X						2
BG3-S1		1351	—						X	X	X						2
CCP-SW1-S1		0912	—						X	X	X						2
CCP-SW2-S1		1100	—						X	X	X						2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) & (2) EPH/VPH & TARGET ANALYTES

(3) TPH BY 8100M

* TPH TURNAROUND 24 HRS

** EPH/TPH TURNAROUND 2-3 DAYS

Sampled and Relinquished by	Received by
Sign Todd Burke	Sign
Print Todd Burke	Print
Firm H&A	Firm
Date 2/17/04 Time 1525	Date 2/17/04 Time 1525
Relinquished by	**Received by**
Sign	Sign
Print	Print Peter Dessel
Firm	Firm Alpha
Date 2/17/04 Time 1745	Date 2/17/04 Time 1745
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Volume

SOLID	VOA Vial	Amber Glass	Clear Glass	Preservative	Volume
	X				
		X	X		
				F	4oz
				A	4oz
				A	4oz

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003 AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0401927
Date Received: 01-MAR-2004
Date Reported: 04-MAR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	NA

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	YES
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

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: L0401927
Date Reported: 04-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401927-01	UST-STKPL4-S2	BELMONT, MA
L0401927-02	UST-STKPL5-S2	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0401927

MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0401927-01
UST-STKPL4-S2
Sample Matrix: SOIL

Date Collected: 26-FEB-2004 16:00
Date Received : 01-MAR-2004
Date Reported : 04-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89.	%	0.10	30 2540G		0301 22:00	LK
Volatile Organics by MCP 8260B/5035-Low				54 8260B		0304 00:16	BT
Methylene chloride	ND	ug/kg	13.				
1,1-Dichloroethane	ND	ug/kg	2.0				
Chloroform	ND	ug/kg	2.0				
Carbon tetrachloride	ND	ug/kg	1.3				
1,2-Dichloropropane	ND	ug/kg	4.6				
Dibromochloromethane	ND	ug/kg	1.3				
1,1,2-Trichloroethane	ND	ug/kg	2.0				
Tetrachloroethene	ND	ug/kg	1.3				
Chlorobenzene	ND	ug/kg	1.3				
Trichlorofluoromethane	ND	ug/kg	6.5				
1,2-Dichloroethane	ND	ug/kg	1.3				
1,1,1-Trichloroethane	ND	ug/kg	1.3				
Bromodichloromethane	ND	ug/kg	1.3				
trans-1,3-Dichloropropene	ND	ug/kg	1.3				
cis-1,3-Dichloropropene	ND	ug/kg	1.3				
1,1-Dichloropropene	ND	ug/kg	6.5				
Bromoform	ND	ug/kg	5.2				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.3				
Benzene	ND	ug/kg	1.3				
Toluene	6.8	ug/kg	2.0				
Ethylbenzene	ND	ug/kg	1.3				
Chloromethane	ND	ug/kg	6.5				
Bromomethane	ND	ug/kg	2.6				
Vinyl chloride	ND	ug/kg	2.6				
Chloroethane	ND	ug/kg	2.6				
1,1-Dichloroethene	ND	ug/kg	1.3				
trans-1,2-Dichloroethene	ND	ug/kg	2.0				
Trichloroethene	ND	ug/kg	1.3				
1,2-Dichlorobenzene	ND	ug/kg	6.5				
1,3-Dichlorobenzene	ND	ug/kg	6.5				
1,4-Dichlorobenzene	ND	ug/kg	6.5				
Methyl tert butyl ether	ND	ug/kg	2.6				
p/m-Xylene	1.7	ug/kg	1.3				
o-Xylene	2.2	ug/kg	1.3				
cis-1,2-Dichloroethene	ND	ug/kg	1.3				
Dibromomethane	ND	ug/kg	13.				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0401927-01
UST-STKPL4-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-Low continued				54 8260B		0304 00:16	BT
1,2,3-Trichloropropane	ND	ug/kg	13.				
Styrene	ND	ug/kg	1.3				
Dichlorodifluoromethane	ND	ug/kg	13.				
Acetone	120	ug/kg	13.				
Carbon disulfide	ND	ug/kg	13.				
2-Butanone	ND	ug/kg	13.				
4-Methyl-2-pentanone	ND	ug/kg	13.				
2-Hexanone	ND	ug/kg	13.				
Bromochloromethane	ND	ug/kg	6.5				
Tetrahydrofuran	ND	ug/kg	26.				
2,2-Dichloropropane	ND	ug/kg	6.5				
1,2-Dibromoethane	ND	ug/kg	6.5				
1,3-Dichloropropane	ND	ug/kg	6.5				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.3				
Bromobenzene	ND	ug/kg	6.5				
n-Butylbenzene	3.2	ug/kg	1.3				
sec-Butylbenzene	ND	ug/kg	1.3				
tert-Butylbenzene	ND	ug/kg	6.5				
o-Chlorotoluene	ND	ug/kg	6.5				
p-Chlorotoluene	ND	ug/kg	6.5				
1,2-Dibromo-3-chloropropane	ND	ug/kg	6.5				
Hexachlorobutadiene	ND	ug/kg	6.5				
Isopropylbenzene	ND	ug/kg	1.3				
p-Isopropyltoluene	19.	ug/kg	1.3				
Naphthalene	6.9	ug/kg	6.5				
n-Propylbenzene	ND	ug/kg	1.3				
1,2,3-Trichlorobenzene	ND	ug/kg	6.5				
1,2,4-Trichlorobenzene	ND	ug/kg	6.5				
1,3,5-Trimethylbenzene	8.3	ug/kg	6.5				
1,2,4-Trimethylbenzene	10.	ug/kg	6.5				
Ethyl ether	ND	ug/kg	6.5				
Isopropyl Ether	ND	ug/kg	5.2				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	5.2				
Tertiary-Amyl Methyl Ether	ND	ug/kg	5.2				
1,4-Dioxane	ND	ug/kg	650				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	98.0	%	70-130
Toluene-d8	88.0	%	70-130
4-Bromofluorobenzene	96.0	%	70-130
Dibromofluoromethane	85.0	%	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: L0401927-02
UST-STKPL5-S2
Sample Matrix: SOIL

Date Collected: 26-FEB-2004 16:00
Date Received : 01-MAR-2004
Date Reported : 04-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89.	%	0.10	30 2540G		0301 22:00	LK
Volatile Organics by MCP 8260B/5035-High				54 8260B		0302 16:10	BT
Methylene chloride	ND	ug/kg	1200				
1,1-Dichloroethane	ND	ug/kg	180				
Chloroform	ND	ug/kg	180				
Carbon tetrachloride	ND	ug/kg	120				
1,2-Dichloropropane	ND	ug/kg	430				
Dibromochloromethane	ND	ug/kg	120				
1,1,2-Trichloroethane	ND	ug/kg	180				
Tetrachloroethene	ND	ug/kg	120				
Chlorobenzene	ND	ug/kg	120				
Trichlorofluoromethane	ND	ug/kg	610				
1,2-Dichloroethane	ND	ug/kg	120				
1,1,1-Trichloroethane	ND	ug/kg	120				
Bromodichloromethane	ND	ug/kg	120				
trans-1,3-Dichloropropene	ND	ug/kg	120				
cis-1,3-Dichloropropene	ND	ug/kg	120				
1,1-Dichloropropene	ND	ug/kg	610				
Bromoform	ND	ug/kg	490				
1,1,2,2-Tetrachloroethane	ND	ug/kg	120				
Benzene	ND	ug/kg	120				
Toluene	ND	ug/kg	180				
Ethylbenzene	ND	ug/kg	120				
Chloromethane	ND	ug/kg	610				
Bromomethane	ND	ug/kg	240				
Vinyl chloride	ND	ug/kg	240				
Chloroethane	ND	ug/kg	240				
1,1-Dichloroethene	ND	ug/kg	120				
trans-1,2-Dichloroethene	ND	ug/kg	180				
Trichloroethene	ND	ug/kg	120				
1,2-Dichlorobenzene	ND	ug/kg	610				
1,3-Dichlorobenzene	ND	ug/kg	610				
1,4-Dichlorobenzene	ND	ug/kg	610				
Methyl tert butyl ether	ND	ug/kg	240				
p/m-Xylene	ND	ug/kg	120				
o-Xylene	ND	ug/kg	120				
cis-1,2-Dichloroethene	ND	ug/kg	120				
Dibromomethane	ND	ug/kg	1200				

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

Laboratory Sample Number: L0401927-02
UST-STKPL5-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0302 16:10	BT
1,2,3-Trichloropropane	ND	ug/kg	1200				
Styrene	ND	ug/kg	120				
Dichlorodifluoromethane	ND	ug/kg	1200				
Acetone	ND	ug/kg	1200				
Carbon disulfide	ND	ug/kg	1200				
2-Butanone	ND	ug/kg	1200				
4-Methyl-2-pentanone	ND	ug/kg	1200				
2-Hexanone	ND	ug/kg	1200				
Bromochloromethane	ND	ug/kg	610				
Tetrahydrofuran	ND	ug/kg	2400				
2,2-Dichloropropane	ND	ug/kg	610				
1,2-Dibromoethane	ND	ug/kg	610				
1,3-Dichloropropane	ND	ug/kg	610				
1,1,1,2-Tetrachloroethane	ND	ug/kg	120				
Bromobenzene	ND	ug/kg	610				
n-Butylbenzene	ND	ug/kg	120				
sec-Butylbenzene	ND	ug/kg	120				
tert-Butylbenzene	ND	ug/kg	610				
o-Chlorotoluene	ND	ug/kg	610				
p-Chlorotoluene	ND	ug/kg	610				
1,2-Dibromo-3-chloropropane	ND	ug/kg	610				
Hexachlorobutadiene	ND	ug/kg	610				
Isopropylbenzene	ND	ug/kg	120				
p-Isopropyltoluene	ND	ug/kg	120				
Naphthalene	720	ug/kg	610				
n-Propylbenzene	ND	ug/kg	120				
1,2,3-Trichlorobenzene	ND	ug/kg	610				
1,2,4-Trichlorobenzene	ND	ug/kg	610				
1,3,5-Trimethylbenzene	ND	ug/kg	610				
1,2,4-Trimethylbenzene	ND	ug/kg	610				
Ethyl ether	ND	ug/kg	610				
Isopropyl Ether	ND	ug/kg	490				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	490				
Tertiary-Amyl Methyl Ether	ND	ug/kg	490				
1,4-Dioxane	ND	ug/kg	61000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	94.0	%	70-130				
Toluene-d8	78.0	%	70-130				
4-Bromofluorobenzene	76.0	%	70-130				
Dibromofluoromethane	79.0	%	70-130				

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401927

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0401901-01, WG164358)					
Solids, Total	88.	89.	%	1	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401927

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-Low LCS for sample(s) 01 (WG164091)		
Methylene chloride	100	70-130
1,1-Dichloroethane	97	70-130
Chloroform	101	70-130
Carbon tetrachloride	104	70-130
1,2-Dichloropropane	93	70-130
Dibromochloromethane	97	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	97	70-130
Chlorobenzene	88	70-130
Trichlorofluoromethane	102	70-130
1,2-Dichloroethane	107	70-130
1,1,1-Trichloroethane	107	70-130
Bromodichloromethane	100	70-130
trans-1,3-Dichloropropene	92	70-130
cis-1,3-Dichloropropene	94	70-130
1,1-Dichloropropene	90	70-130
Bromoform	103	70-130
1,1,2,2-Tetrachloroethane	79	70-130
Benzene	90	70-130
Toluene	91	70-130
Ethylbenzene	96	70-130
Chloromethane	91	70-130
Bromomethane	92	70-130
Vinyl chloride	106	70-130
Chloroethane	93	70-130
1,1-Dichloroethene	90	70-130
trans-1,2-Dichloroethene	94	70-130
Trichloroethene	104	70-130
1,2-Dichlorobenzene	90	70-130
1,3-Dichlorobenzene	90	70-130
1,4-Dichlorobenzene	91	70-130
Methyl tert butyl ether	108	70-130
p/m-Xylene	93	70-130
o-Xylene	91	70-130
cis-1,2-Dichloroethene	86	70-130
Dibromomethane	99	70-130
1,2,3-Trichloropropane	97	70-130
Styrene	95	70-130
Dichlorodifluoromethane	75	70-130
Acetone	113	70-130
Carbon disulfide	93	70-130
2-Butanone	94	70-130
4-Methyl-2-pentanone	93	70-130
2-Hexanone	92	70-130
Bromochloromethane	98	70-130
Tetrahydrofuran	107	70-130
2,2-Dichloropropane	105	70-130
1,2-Dibromoethane	96	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401927

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-Low LCS for sample(s) 01 (WG164091)		
1,3-Dichloropropane	96	70-130
1,1,1,2-Tetrachloroethane	101	70-130
Bromobenzene	95	70-130
n-Butylbenzene	97	70-130
sec-Butylbenzene	94	70-130
tert-Butylbenzene	95	70-130
o-Chlorotoluene	98	70-130
p-Chlorotoluene	95	70-130
1,2-Dibromo-3-chloropropane	99	70-130
Hexachlorobutadiene	99	70-130
Isopropylbenzene	94	70-130
p-Isopropyltoluene	97	70-130
Naphthalene	102	70-130
n-Propylbenzene	97	70-130
1,2,3-Trichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	94	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	101	70-130
Ethyl ether	106	70-130
Isopropyl Ether	93	70-130
Ethyl-Tert-Butyl-Ether	94	70-130
Tertiary-Amyl Methyl Ether	94	70-130
1,4-Dioxane	103	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	81	70-130
4-Bromofluorobenzene	82	70-130
Dibromofluoromethane	85	70-130
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 02 (WG164225)		
Methylene chloride	101	70-130
1,1-Dichloroethane	99	70-130
Chloroform	106	70-130
Carbon tetrachloride	114	70-130
1,2-Dichloropropane	92	70-130
Dibromochloromethane	107	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	101	70-130
Chlorobenzene	88	70-130
Trichlorofluoromethane	118	70-130
1,2-Dichloroethane	115	70-130
1,1,1-Trichloroethane	114	70-130
Bromodichloromethane	110	70-130
trans-1,3-Dichloropropene	99	70-130
cis-1,3-Dichloropropene	97	70-130
1,1-Dichloropropene	91	70-130
Bromoform	106	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401927

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 02 (WG164225)		
1,1,2,2-Tetrachloroethane	82	70-130
Benzene	88	70-130
Toluene	93	70-130
Ethylbenzene	98	70-130
Chloromethane	100	70-130
Bromomethane	97	70-130
Vinyl chloride	120	70-130
Chloroethane	95	70-130
1,1-Dichloroethene	94	70-130
trans-1,2-Dichloroethene	95	70-130
Trichloroethene	107	70-130
1,2-Dichlorobenzene	94	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	94	70-130
Methyl tert butyl ether	113	70-130
p/m-Xylene	94	70-130
o-Xylene	92	70-130
cis-1,2-Dichloroethene	90	70-130
Dibromomethane	111	70-130
1,2,3-Trichloropropane	100	70-130
Styrene	95	70-130
Dichlorodifluoromethane	74	70-130
Acetone	121	70-130
Carbon disulfide	97	70-130
2-Butanone	102	70-130
4-Methyl-2-pentanone	95	70-130
2-Hexanone	99	70-130
Bromochloromethane	95	70-130
Tetrahydrofuran	97	70-130
2,2-Dichloropropane	113	70-130
1,2-Dibromoethane	100	70-130
1,3-Dichloropropane	99	70-130
1,1,1,2-Tetrachloroethane	107	70-130
Bromobenzene	98	70-130
n-Butylbenzene	102	70-130
sec-Butylbenzene	98	70-130
tert-Butylbenzene	98	70-130
o-Chlorotoluene	103	70-130
p-Chlorotoluene	101	70-130
1,2-Dibromo-3-chloropropane	104	70-130
Hexachlorobutadiene	102	70-130
Isopropylbenzene	98	70-130
p-Isopropyltoluene	100	70-130
Naphthalene	101	70-130
n-Propylbenzene	100	70-130
1,2,3-Trichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	95	70-130
1,3,5-Trimethylbenzene	104	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401927

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 02 (WG164225)		
1,2,4-Trimethylbenzene	106	70-130
Ethyl ether	109	70-130
Isopropyl Ether	92	70-130
Ethyl-Tert-Butyl-Ether	92	70-130
Tertiary-Amyl Methyl Ether	90	70-130
1,4-Dioxane	95	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	81	70-130
4-Bromofluorobenzene	82	70-130
Dibromofluoromethane	86	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401927

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG164091-8)							
Volatile Organics by MCP 8260B/5035-Low				54 8260B		0303 15:24	BT
Methylene chloride	ND	ug/kg	10.				
1,1-Dichloroethane	ND	ug/kg	1.5				
Chloroform	ND	ug/kg	1.5				
Carbon tetrachloride	ND	ug/kg	1.0				
1,2-Dichloropropane	ND	ug/kg	3.5				
Dibromochloromethane	ND	ug/kg	1.0				
1,1,2-Trichloroethane	ND	ug/kg	1.5				
Tetrachloroethene	ND	ug/kg	1.0				
Chlorobenzene	ND	ug/kg	1.0				
Trichlorofluoromethane	ND	ug/kg	5.0				
1,2-Dichloroethane	ND	ug/kg	1.0				
1,1,1-Trichloroethane	ND	ug/kg	1.0				
Bromodichloromethane	ND	ug/kg	1.0				
trans-1,3-Dichloropropene	ND	ug/kg	1.0				
cis-1,3-Dichloropropene	ND	ug/kg	1.0				
1,1-Dichloropropene	ND	ug/kg	5.0				
Bromoform	ND	ug/kg	4.0				
1,1,2,2-Tetrachloroethane	ND	ug/kg	1.0				
Benzene	ND	ug/kg	1.0				
Toluene	ND	ug/kg	1.5				
Ethylbenzene	ND	ug/kg	1.0				
Chloromethane	ND	ug/kg	5.0				
Bromomethane	ND	ug/kg	2.0				
Vinyl chloride	ND	ug/kg	2.0				
Chloroethane	ND	ug/kg	2.0				
1,1-Dichloroethene	ND	ug/kg	1.0				
trans-1,2-Dichloroethene	ND	ug/kg	1.5				
Trichloroethene	ND	ug/kg	1.0				
1,2-Dichlorobenzene	ND	ug/kg	5.0				
1,3-Dichlorobenzene	ND	ug/kg	5.0				
1,4-Dichlorobenzene	ND	ug/kg	5.0				
Methyl tert butyl ether	ND	ug/kg	2.0				
p/m-Xylene	ND	ug/kg	1.0				
o-Xylene	ND	ug/kg	1.0				
cis-1,2-Dichloroethene	ND	ug/kg	1.0				
Dibromomethane	ND	ug/kg	10.				
1,2,3-Trichloropropane	ND	ug/kg	10.				
Styrene	ND	ug/kg	1.0				
Dichlorodifluoromethane	ND	ug/kg	10.				
Acetone	ND	ug/kg	10.				
Carbon disulfide	ND	ug/kg	10.				
2-Butanone	ND	ug/kg	10.				
4-Methyl-2-pentanone	ND	ug/kg	10.				
2-Hexanone	ND	ug/kg	10.				
Bromochloromethane	ND	ug/kg	5.0				
Tetrahydrofuran	ND	ug/kg	20.				
2,2-Dichloropropane	ND	ug/kg	5.0				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401927

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG164091-8)							
Volatile Organics by MCP 8260B/5035-Low continued				54 8260B		0303 15:24	BT
1,2-Dibromoethane	ND	ug/kg	5.0				
1,3-Dichloropropane	ND	ug/kg	5.0				
1,1,1,2-Tetrachloroethane	ND	ug/kg	1.0				
Bromobenzene	ND	ug/kg	5.0				
n-Butylbenzene	ND	ug/kg	1.0				
sec-Butylbenzene	ND	ug/kg	1.0				
tert-Butylbenzene	ND	ug/kg	5.0				
o-Chlorotoluene	ND	ug/kg	5.0				
p-Chlorotoluene	ND	ug/kg	5.0				
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0				
Hexachlorobutadiene	ND	ug/kg	5.0				
Isopropylbenzene	ND	ug/kg	1.0				
p-Isopropyltoluene	ND	ug/kg	1.0				
Naphthalene	ND	ug/kg	5.0				
n-Propylbenzene	ND	ug/kg	1.0				
1,2,3-Trichlorobenzene	ND	ug/kg	5.0				
1,2,4-Trichlorobenzene	ND	ug/kg	5.0				
1,3,5-Trimethylbenzene	ND	ug/kg	5.0				
1,2,4-Trimethylbenzene	ND	ug/kg	5.0				
Ethyl ether	ND	ug/kg	5.0				
Isopropyl Ether	ND	ug/kg	4.0				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	4.0				
Tertiary-Amyl Methyl Ether	ND	ug/kg	4.0				
1,4-Dioxane	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	99.0	%	70-130				
Toluene-d8	78.0	%	70-130				
4-Bromofluorobenzene	81.0	%	70-130				
Dibromofluoromethane	84.0	%	70-130				
Blank Analysis for sample(s) 02 (WG164225-8)							
Volatile Organics by MCP 8260B/5035-High				54 8260B		0302 13:45	BT
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401927

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG164225-8)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0302 13:45	BT
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401927

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02 (WG164225-8)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0302 13:45	BT
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	114.	%	70-130				
Toluene-d8	78.0	%	70-130				
4-Bromofluorobenzene	83.0	%	70-130				
Dibromofluoromethane	88.0	%	70-130				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0401927

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
L0401927-01A	Vial MeOH preserved	A	NA	1.1 C	Y	Absent	MCP-8260L-G
L0401927-01B	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260L-G
L0401927-01C	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260L-G
L0401927-01D	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260L-G
L0401927-01E	Plastic 2oz unpreserved for Tota	A	NA	1.1 C	Y	Absent	TS
L0401927-02A	Vial MeOH preserved	A	NA	1.1 C	Y	Absent	MCP-8260H
L0401927-02B	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260H
L0401927-02C	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260H
L0401927-02D	Vial NaHSO4 preserved	A	NA	1.1 C	Y	Absent	MCP-8260H
L0401927-02E	Plastic 2oz unpreserved for Tota	A	NA	1.1 C	Y	Absent	TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO.	30660-000	LABORATORY	ACCUTEST
PROJECT NAME	BUCKNELL SCHOOL	ADDRESS	
H&A CONTACT	STEVE PROVENCAL	CONTACT	
DELIVERY DATE	03/01/04		
TURNAROUND TIME	3 DAYS		
PROJECT MANAGER	JACK MOONEY		

Sample No.	Date	Time	Depth	Type	Analysis Requested: VOA (1)	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity	(1)			Number of Containers
UST-STKPL4-S2	2/26/04	1600	—	SOIL	X									X			5 4
UST-STKPL5-S2	"	"	—	SOIL	X									X			5 4

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) VOC's MEnt 8260

(2) TOTAL SOLIDS

Sampled and Relinquished by	Received by
Sign Todd R Burke	Sign Desmond Crawford
Print Todd Burke	Print DESMOND CRAWFORD
Firm H&A	Firm H&A
Date 2/26/04 Time 1700	Date 02/26/04 Time 17:00
Relinquished by	**Received by**
Sign Desmond Crawford	Sign
Print DESMOND CRAWFORD	Print
Firm H&A	Firm
Date 03/01/04 Time 15:45	Date 3/1/04 Time 535
Relinquished by	**Received by**
Sign	Sign
Print	Print Keller Dosed
Firm	Firm ACCUTEST
Date 3/1/04 Time 1810	Date 3/1/04 Time 1810

LIQUID														
														VOA Vial
														Amber Glass
														Plastic Bottle
														Preservative
														Volume

SOLID														
X														VOA Vial
														Amber Glass
														Clear Glass
6														Preservative
40ML														Volume

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0402296

Date Received: 10-MAR-2004

Date Reported: 18-MAR-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402296
Date Reported: 18-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402296-01	CCP-SW3-S1	BELMONT, MA
L0402296-02	CCP-SW4-S1	BELMONT, MA
L0402296-03	CCP-SW5-S1	BELMONT, MA
L0402296-04	CCP-SW6-S1	BELMONT, MA
L0402296-05	CCP-SW7-S1	BELMONT, MA
L0402296-06	TRIP BLANK	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0402296

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

EPH

L0402296-01 has elevated limits of detection due to 2x dilutions required by the matrix interferences encountered during the extraction, concentration, and/or digestion of the sample.

In reference to question E, one or more surrogate percent recoveries on L0402296-03 are below the acceptance criteria for the method apparently due to sample matrix (1-chloro-octadecane and o-Terphenyl). Re-extraction was performed within hold time and confirmed the original results with one or more surrogate percent recoveries below the acceptance criteria for the method (1-chloro-octadecane and o-Terphenyl). Both sets of data have been reported.

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: L0402296-01
CCP-SW3-S1
Sample Matrix: SOIL

Date Collected: 10-MAR-2004 11:35
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	51.	%	0.10	30 2540G		0311 19:15	DD

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-01
CCP-SW3-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0311 11:01	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	7.17
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	7.17
C9-C10 Aromatics	ND	mg/kg	7.17
C5-C8 Aliphatics, Adjusted	ND	mg/kg	7.17
C9-C12 Aliphatics, Adjusted	ND	mg/kg	7.17
Benzene	ND	mg/kg	0.359
Toluene	ND	mg/kg	0.359
Ethylbenzene	ND	mg/kg	0.359
p/m-Xylene	ND	mg/kg	0.359
o-Xylene	ND	mg/kg	0.359
Methyl tert butyl ether	ND	mg/kg	0.717
Naphthalene	ND	mg/kg	3.59

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	98.0	%	70-130
2,5-Dibromotoluene-FID	97.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-01
CCP-SW3-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0311 10:30	0317 05:07	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	39.2
C19-C36 Aliphatics	83.6	mg/kg	39.2
C11-C22 Aromatics, Unadjusted	291.	mg/kg	39.2
C11-C22 Aromatics, Adjusted	252.	mg/kg	39.2
Naphthalene	ND	mg/kg	1.96
2-Methylnaphthalene	ND	mg/kg	1.96
Acenaphthylene	2.10	mg/kg	1.96
Acenaphthene	ND	mg/kg	1.96
Fluorene	ND	mg/kg	1.96
Phenanthrene	2.03	mg/kg	1.96
Anthracene	ND	mg/kg	1.96
Fluoranthene	3.91	mg/kg	1.96
Pyrene	5.33	mg/kg	1.96
Benzo(a)anthracene	2.40	mg/kg	1.96
Chrysene	3.66	mg/kg	1.96
Benzo(b)fluoranthene	4.57	mg/kg	1.96
Benzo(k)fluoranthene	3.88	mg/kg	1.96
Benzo(a)pyrene	3.96	mg/kg	1.96
Indeno(1,2,3-cd)Pyrene	3.10	mg/kg	1.96
Dibenzo(a,h)anthracene	ND	mg/kg	1.96
Benzo(g,h,i)perylene	3.51	mg/kg	1.96

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	46.0	%	40-140
o-Terphenyl	85.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	83.0	%	40-140

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: L0402296-02
CCP-SW4-S1
Sample Matrix: SOIL

Date Collected: 10-MAR-2004 11:40
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	70.	%	0.10	30 2540G		0311 19:15	DD

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-02
CCP-SW4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0311 11:52	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.17
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.17
C9-C10 Aromatics	ND	mg/kg	3.17
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.17
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.17
Benzene	ND	mg/kg	0.159
Toluene	ND	mg/kg	0.159
Ethylbenzene	ND	mg/kg	0.159
p/m-Xylene	ND	mg/kg	0.159
o-Xylene	ND	mg/kg	0.159
Methyl tert butyl ether	ND	mg/kg	0.317
Naphthalene	ND	mg/kg	1.59

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	95.0	%	70-130
2,5-Dibromotoluene-FID	97.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-02
CCP-SW4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0311 10:30	0317 05:53	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	14.3
C19-C36 Aliphatics	32.0	mg/kg	14.3
C11-C22 Aromatics, Unadjusted	72.1	mg/kg	14.3
C11-C22 Aromatics, Adjusted	62.9	mg/kg	14.3
Naphthalene	ND	mg/kg	0.714
2-Methylnaphthalene	ND	mg/kg	0.714
Acenaphthylene	ND	mg/kg	0.714
Acenaphthene	ND	mg/kg	0.714
Fluorene	ND	mg/kg	0.714
Phenanthrene	1.24	mg/kg	0.714
Anthracene	ND	mg/kg	0.714
Fluoranthene	1.68	mg/kg	0.714
Pyrene	1.78	mg/kg	0.714
Benzo(a)anthracene	0.795	mg/kg	0.714
Chrysene	1.08	mg/kg	0.714
Benzo(b)fluoranthene	0.795	mg/kg	0.714
Benzo(k)fluoranthene	0.943	mg/kg	0.714
Benzo(a)pyrene	0.886	mg/kg	0.714
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.714
Dibenzo(a,h)anthracene	ND	mg/kg	0.714
Benzo(g,h,i)perylene	ND	mg/kg	0.714

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	74.0	%	40-140
2-Fluorobiphenyl	81.0	%	40-140
2-Bromonaphthalene	83.0	%	40-140

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: L0402296-03
CCP-SW5-S1
Sample Matrix: SOIL

Date Collected: 10-MAR-2004 11:50
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	23.	%	0.10	30 2540G		0311 19:15	DD

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-03
CCP-SW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0311 12:42	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	14.8
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	14.8
C9-C10 Aromatics	ND	mg/kg	14.8
C5-C8 Aliphatics, Adjusted	ND	mg/kg	14.8
C9-C12 Aliphatics, Adjusted	ND	mg/kg	14.8
Benzene	ND	mg/kg	0.741
Toluene	ND	mg/kg	0.741
Ethylbenzene	ND	mg/kg	0.741
p/m-Xylene	ND	mg/kg	0.741
o-Xylene	ND	mg/kg	0.741
Methyl tert butyl ether	ND	mg/kg	1.48
Naphthalene	ND	mg/kg	7.41

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	101.	%	70-130
2,5-Dibromotoluene-FID	100.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-03
CCP-SW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0311 10:30	0317 04:22	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	43.5
C19-C36 Aliphatics	116.	mg/kg	43.5
C11-C22 Aromatics, Unadjusted	97.0	mg/kg	43.5
C11-C22 Aromatics, Adjusted	97.0	mg/kg	43.5
Naphthalene	ND	mg/kg	2.17
2-Methylnaphthalene	ND	mg/kg	2.17
Acenaphthylene	ND	mg/kg	2.17
Acenaphthene	ND	mg/kg	2.17
Fluorene	ND	mg/kg	2.17
Phenanthrene	ND	mg/kg	2.17
Anthracene	ND	mg/kg	2.17
Fluoranthene	ND	mg/kg	2.17
Pyrene	ND	mg/kg	2.17
Benzo(a)anthracene	ND	mg/kg	2.17
Chrysene	ND	mg/kg	2.17
Benzo(b)fluoranthene	ND	mg/kg	2.17
Benzo(k)fluoranthene	ND	mg/kg	2.17
Benzo(a)pyrene	ND	mg/kg	2.17
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	2.17
Dibenzo(a,h)anthracene	ND	mg/kg	2.17
Benzo(g,h,i)perylene	ND	mg/kg	2.17

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	27.0	%	40-140
o-Terphenyl	34.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	84.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-03
CCP-SW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0317 12:00	0318 12:58	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	43.5
C19-C36 Aliphatics	139.	mg/kg	43.5
C11-C22 Aromatics, Unadjusted	52.3	mg/kg	43.5
C11-C22 Aromatics, Adjusted	52.3	mg/kg	43.5
Naphthalene	ND	mg/kg	2.17
2-Methylnaphthalene	ND	mg/kg	2.17
Acenaphthylene	ND	mg/kg	2.17
Acenaphthene	ND	mg/kg	2.17
Fluorene	ND	mg/kg	2.17
Phenanthrene	ND	mg/kg	2.17
Anthracene	ND	mg/kg	2.17
Fluoranthene	ND	mg/kg	2.17
Pyrene	ND	mg/kg	2.17
Benzo(a)anthracene	ND	mg/kg	2.17
Chrysene	ND	mg/kg	2.17
Benzo(b)fluoranthene	ND	mg/kg	2.17
Benzo(k)fluoranthene	ND	mg/kg	2.17
Benzo(a)pyrene	ND	mg/kg	2.17
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	2.17
Dibenzo(a,h)anthracene	ND	mg/kg	2.17
Benzo(g,h,i)perylene	ND	mg/kg	2.17

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	27.0	%	40-140
o-Terphenyl	35.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	78.0	%	40-140

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: L0402296-04
CCP-SW6-S1
Sample Matrix: SOIL

Date Collected: 10-MAR-2004 12:05
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0311 19:15	DD

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-04
CCP-SW6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0312 00:27	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.94
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.94
C9-C10 Aromatics	ND	mg/kg	2.94
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.94
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.94
Benzene	ND	mg/kg	0.147
Toluene	ND	mg/kg	0.147
Ethylbenzene	ND	mg/kg	0.147
p/m-Xylene	ND	mg/kg	0.147
o-Xylene	ND	mg/kg	0.147
Methyl tert butyl ether	ND	mg/kg	0.294
Naphthalene	ND	mg/kg	1.47

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	94.0	%	70-130
2,5-Dibromotoluene-FID	94.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-04
CCP-SW6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0318 12:00	0318 11:26	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	54.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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: L0402296-05
CCP-SW7-S1
Sample Matrix: SOIL

Date Collected: 10-MAR-2004 12:15
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	69.	%	0.10	30 2540G		0311 19:15	DD

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

Laboratory Sample Number: L0402296-05
CCP-SW7-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0312 01:18	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.15
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.15
C9-C10 Aromatics	ND	mg/kg	3.15
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.15
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.15
Benzene	ND	mg/kg	0.158
Toluene	ND	mg/kg	0.158
Ethylbenzene	ND	mg/kg	0.158
p/m-Xylene	ND	mg/kg	0.158
o-Xylene	ND	mg/kg	0.158
Methyl tert butyl ether	ND	mg/kg	0.315
Naphthalene	ND	mg/kg	1.58

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	85.0	%	70-130
2,5-Dibromotoluene-FID	87.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402296-05
CCP-SW7-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0318 12:00	0318 12:15	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	14.5
C19-C36 Aliphatics	21.8	mg/kg	14.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	14.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	14.5
Naphthalene	ND	mg/kg	0.725
2-Methylnaphthalene	ND	mg/kg	0.725
Acenaphthylene	ND	mg/kg	0.725
Acenaphthene	ND	mg/kg	0.725
Fluorene	ND	mg/kg	0.725
Phenanthrene	ND	mg/kg	0.725
Anthracene	ND	mg/kg	0.725
Fluoranthene	ND	mg/kg	0.725
Pyrene	ND	mg/kg	0.725
Benzo(a)anthracene	ND	mg/kg	0.725
Chrysene	ND	mg/kg	0.725
Benzo(b)fluoranthene	ND	mg/kg	0.725
Benzo(k)fluoranthene	ND	mg/kg	0.725
Benzo(a)pyrene	ND	mg/kg	0.725
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.725
Dibenzo(a,h)anthracene	ND	mg/kg	0.725
Benzo(g,h,i)perylene	ND	mg/kg	0.725

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	52.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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: L0402296-06
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 14-FEB-2004 09:45
Date Received : 10-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0312 02:08	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	86.0	%	70-130
2,5-Dibromotoluene-FID	90.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402296

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-05 (L0402295-01, WG165160)					
Solids, Total	86.	86.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-06 (L0402161-02, WG164984)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	98.0	105.	%	7	70-130
2,5-Dibromotoluene-FID	91.0	101.	%	10	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-03 (L0402271-01, WG165145)					
C9-C18 Aliphatics	183.	171.	mg/kg	7	50
C19-C36 Aliphatics	651.	682.	mg/kg	5	50
C11-C22 Aromatics	368.	333.	mg/kg	10	50
C11-C22 Aromatics, Adjusted	367.	332.	mg/kg	10	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	65.0	63.0	%	3	40-140
o-Terphenyl	85.0	83.0	%	2	40-140
2-Fluorobiphenyl	77.0	83.0	%	8	40-140
2-Bromonaphthalene	88.0	91.0	%	3	40-140
Extractable Petroleum Hydrocarbons for sample(s) 04-05 (L0401911-21, WG165661)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	34.8	31.9	mg/kg	9	50
C11-C22 Aromatics	10.8	12.0	mg/kg	11	50
C11-C22 Aromatics, Adjusted	10.8	12.0	mg/kg	11	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402296

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 04-05 (L0401911-21, WG165661)					
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	25.0	27.0	%	8	40-140
o-Terphenyl	35.0	35.0	%	0	40-140
2-Fluorobiphenyl	75.0	79.0	%	5	40-140
2-Bromonaphthalene	74.0	78.0	%	5	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402296

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-06 (WG164984)		
Benzene	112	70-130
Toluene	100	70-130
Ethylbenzene	105	70-130
p/m-Xylene	92	70-130
o-Xylene	104	70-130
Methyl tert butyl ether	95	70-130
Naphthalene	100	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	98	70-130
2,5-Dibromotoluene-FID	91	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG165145)		
Naphthalene	58	40-140
Acenaphthene	63	40-140
Anthracene	83	40-140
Pyrene	82	40-140
Chrysene	85	40-140
Nonane (C9)	52	40-140
Tetradecane (C14)	63	40-140
Nonadecane (C19)	78	40-140
Eicosane (C20)	77	40-140
Octacosane (C28)	74	40-140
Surrogate(s)		
Chloro-Octadecane	57	40-140
o-Terphenyl	96	40-140
2-Fluorobiphenyl	75	40-140
2-Bromonaphthalene	77	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 04-05 (WG165661)		
Naphthalene	52	40-140
Acenaphthene	62	40-140
Anthracene	77	40-140
Pyrene	80	40-140
Chrysene	83	40-140
Nonane (C9)	51	40-140
Tetradecane (C14)	67	40-140
Nonadecane (C19)	84	40-140
Eicosane (C20)	83	40-140
Octacosane (C28)	81	40-140
Surrogate(s)		
Chloro-Octadecane	64	40-140
o-Terphenyl	77	40-140
2-Fluorobiphenyl	76	40-140
2-Bromonaphthalene	71	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402296

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-06 (WG164984-5)							
Volatile Petroleum Hydrocarbons				47 98-1		0311 08:19	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	102.	%	70-130				
2,5-Dibromotoluene-FID	99.0	%	70-130				
Blank Analysis for sample(s) 01-03 (WG165145-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0311 10:30	0316 07:46	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	59.0	%	40-140				
o-Terphenyl	75.0	%	40-140				
2-Fluorobiphenyl	75.0	%	40-140				
2-Bromonaphthalene	77.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402296

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 04-05 (WG165661-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0318 12:00	0318 13:20	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	65.0	%	40-140				
o-Terphenyl	85.0	%	40-140				
2-Fluorobiphenyl	85.0	%	40-140				
2-Bromonaphthalene	84.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402296

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
L0402296-01A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0402296-01B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0402296-02A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0402296-02B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0402296-03A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0402296-03B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0402296-04A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0402296-04B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0402296-05A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0402296-05B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0402296-06A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF COUSTODY RECORD

H&A FILE NO. 30660-000
PROJECT NAME Burbank School
H&A CONTACT Steve Provensal

LABORATORY Alpha
ADDRESS Westborough, MA
CONTACT

DELIVERY DATE 03/10/04
TURNAROUND TIME 5 DAYS
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth (in.)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	① VPH Full Suite C-ranges only	① EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
CCP-SW3-S1	3/10/04	1135	0-6	Soil					X	X							2
CCP-SW4-S1	↓	1140	↓	↓					X	X							2
CCP-SW5-S1	↓	1150	↓	↓					X	X							2
CCP-SW6-S1	↓	1205	↓	↓					X	X							2
CCP-SW7-S1	↓	1215	↓	↓					X	X							2
Trip Blank									X								1

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

① ② EPH/VPH and target analytes.

Sampling Comments

* Please fax data care of Mike Cronin
Fax No. 617.886.7777

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	
Clear Glass	
Preservative	
Volume	

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Sampled and Relinquished by
Sign Todd R Butler
Print Todd Butler
Firm H&A
Date 3/10/04 Time 1445

Received by
Sign Desmond Crawford
Print Desmond Crawford
Firm H&A
Date 3/10/04 Time 14:45

Relinquished by
Sign Desmond Crawford
Print Desmond Crawford
Firm H&A
Date 3/10/04 Time 16:05

Received by
Sign [signature]
Print W. Wilson
Firm AA
Date 3/10/04 Time 1605

Relinquished by
Sign [signature]
Print
Firm
Date 3/10/04 Time 1745

Received by
Sign
Print Kim Bailey
Firm
Date 3/10/04 Time 1745

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

HA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

___ This Chain of Custody Record (specify) ______ includes ✓ does not include samples defined as Drinking Water Samples.

HA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ______ analyze ______ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1 ☑ S1 ☐ GW1
- ☐ RC-S2 ☐ S2 ☑ GW2
- ☐ RC-GW1 ☐ S3 ☐ GW3
- ☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0402475
Date Received: 16-MAR-2004
Date Reported: 18-MAR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? NA

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO

F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402475
Date Reported: 18-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402475-01	UST-STKPL4-S3	BELMONT, MA
L0402475-02	UST-STKPL5-S3	BELMONT, MA

Laboratory Job Number: L0402475

Volatile Organics

The analysis of Volatile Organics by EPA Method 5035/8260B Low-Level could not be performed due to the high concentrations of non-target compounds present in the samples.

In reference to question E, the LCS has a low recovery for dichlorodifluoromethane, a known difficult analyte. The LCS also has high recoveries for Tetrahydrofuran, sec butyl benzene, and p-isopropyl toluene.

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: L0402475-01
UST-STKPL4-S3
Sample Matrix: SOIL

Date Collected: 16-MAR-2004 13:00
Date Received : 16-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89.	%	0.10	30 2540G		0317 22:30	LK
Volatile Organics by MCP 8260B/5035-High				54 8260B		0318 10:25	RY
Methylene chloride	ND	ug/kg	560				
1,1-Dichloroethane	ND	ug/kg	84.				
Chloroform	ND	ug/kg	84.				
Carbon tetrachloride	ND	ug/kg	56.				
1,2-Dichloropropane	ND	ug/kg	200				
Dibromochloromethane	ND	ug/kg	56.				
1,1,2-Trichloroethane	ND	ug/kg	84.				
Tetrachloroethene	ND	ug/kg	56.				
Chlorobenzene	ND	ug/kg	56.				
Trichlorofluoromethane	ND	ug/kg	280				
1,2-Dichloroethane	ND	ug/kg	56.				
1,1,1-Trichloroethane	ND	ug/kg	56.				
Bromodichloromethane	ND	ug/kg	56.				
trans-1,3-Dichloropropene	ND	ug/kg	56.				
cis-1,3-Dichloropropene	ND	ug/kg	56.				
1,1-Dichloropropene	ND	ug/kg	280				
Bromoform	ND	ug/kg	220				
1,1,2,2-Tetrachloroethane	ND	ug/kg	56.				
Benzene	ND	ug/kg	56.				
Toluene	ND	ug/kg	84.				
Ethylbenzene	ND	ug/kg	56.				
Chloromethane	ND	ug/kg	280				
Bromomethane	ND	ug/kg	110				
Vinyl chloride	ND	ug/kg	110				
Chloroethane	ND	ug/kg	110				
1,1-Dichloroethene	ND	ug/kg	56.				
trans-1,2-Dichloroethene	ND	ug/kg	84.				
Trichloroethene	ND	ug/kg	56.				
1,2-Dichlorobenzene	ND	ug/kg	280				
1,3-Dichlorobenzene	ND	ug/kg	280				
1,4-Dichlorobenzene	ND	ug/kg	280				
Methyl tert butyl ether	ND	ug/kg	110				
p/m-Xylene	ND	ug/kg	56.				
o-Xylene	ND	ug/kg	56.				
cis-1,2-Dichloroethene	ND	ug/kg	56.				
Dibromomethane	ND	ug/kg	560				

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

Laboratory Sample Number: L0402475-01
UST-STKPL4-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0318 10:25	RY
1,2,3-Trichloropropane	ND	ug/kg	560				
Styrene	ND	ug/kg	56.				
Dichlorodifluoromethane	ND	ug/kg	560				
Acetone	ND	ug/kg	560				
Carbon disulfide	ND	ug/kg	560				
2-Butanone	ND	ug/kg	560				
4-Methyl-2-pentanone	ND	ug/kg	560				
2-Hexanone	ND	ug/kg	560				
Bromochloromethane	ND	ug/kg	280				
Tetrahydrofuran	ND	ug/kg	1100				
2,2-Dichloropropane	ND	ug/kg	280				
1,2-Dibromoethane	ND	ug/kg	280				
1,3-Dichloropropane	ND	ug/kg	280				
1,1,1,2-Tetrachloroethane	ND	ug/kg	56.				
Bromobenzene	ND	ug/kg	280				
n-Butylbenzene	87.	ug/kg	56.				
sec-Butylbenzene	ND	ug/kg	56.				
tert-Butylbenzene	ND	ug/kg	280				
o-Chlorotoluene	ND	ug/kg	280				
p-Chlorotoluene	ND	ug/kg	280				
1,2-Dibromo-3-chloropropane	ND	ug/kg	280				
Hexachlorobutadiene	ND	ug/kg	280				
Isopropylbenzene	ND	ug/kg	56.				
p-Isopropyltoluene	ND	ug/kg	56.				
Naphthalene	ND	ug/kg	280				
n-Propylbenzene	ND	ug/kg	56.				
1,2,3-Trichlorobenzene	ND	ug/kg	280				
1,2,4-Trichlorobenzene	ND	ug/kg	280				
1,3,5-Trimethylbenzene	ND	ug/kg	280				
1,2,4-Trimethylbenzene	ND	ug/kg	280				
Ethyl ether	ND	ug/kg	280				
Isopropyl Ether	ND	ug/kg	220				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	220				
Tertiary-Amyl Methyl Ether	ND	ug/kg	220				
1,4-Dioxane	ND	ug/kg	28000				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	98.0	%	70-130
Toluene-d8	98.0	%	70-130
4-Bromofluorobenzene	83.0	%	70-130
Dibromofluoromethane	92.0	%	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: L0402475-02
UST-STKPL5-S3
Sample Matrix: SOIL

Date Collected: 16-MAR-2004 13:15
Date Received : 16-MAR-2004
Date Reported : 18-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0317 22:30	LK
Volatile Organics by MCP 8260B/5035-High				54 8260B		0318 11:01	RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	170				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				

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

Laboratory Sample Number: L0402475-02
UST-STKPL5-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0318 11:01	RY
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				

Surrogate(s)	Recovery		QC Criteria
1,2-Dichloroethane-d4	103.	%	70-130
Toluene-d8	95.0	%	70-130
4-Bromofluorobenzene	84.0	%	70-130
Dibromofluoromethane	92.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402475

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0402475-01, WG165581)					
Solids, Total	89.	91.	%	2	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402475

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01-02 (WG165641)		
Methylene chloride	84	70-130
1,1-Dichloroethane	97	70-130
Chloroform	100	70-130
Carbon tetrachloride	110	70-130
1,2-Dichloropropane	95	70-130
Dibromochloromethane	97	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	110	70-130
Chlorobenzene	108	70-130
Trichlorofluoromethane	90	70-130
1,2-Dichloroethane	97	70-130
1,1,1-Trichloroethane	104	70-130
Bromodichloromethane	100	70-130
trans-1,3-Dichloropropene	92	70-130
cis-1,3-Dichloropropene	94	70-130
1,1-Dichloropropene	94	70-130
Bromoform	95	70-130
1,1,2,2-Tetrachloroethane	73	70-130
Benzene	95	70-130
Toluene	105	70-130
Ethylbenzene	114	70-130
Chloromethane	71	70-130
Bromomethane	75	70-130
Vinyl chloride	81	70-130
Chloroethane	83	70-130
1,1-Dichloroethene	84	70-130
trans-1,2-Dichloroethene	91	70-130
Trichloroethene	97	70-130
1,2-Dichlorobenzene	108	70-130
1,3-Dichlorobenzene	115	70-130
1,4-Dichlorobenzene	110	70-130
Methyl tert butyl ether	85	70-130
p/m-Xylene	117	70-130
o-Xylene	116	70-130
cis-1,2-Dichloroethene	97	70-130
Dibromomethane	96	70-130
1,2,3-Trichloropropane	72	70-130
Styrene	110	70-130
Dichlorodifluoromethane	61	70-130
Acetone	84	70-130
Carbon disulfide	84	70-130
2-Butanone	72	70-130
4-Methyl-2-pentanone	78	70-130
2-Hexanone	75	70-130
Bromochloromethane	97	70-130
Tetrahydrofuran	322	70-130
2,2-Dichloropropane	103	70-130
1,2-Dibromoethane	101	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402475

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01-02 (WG165641)		
1,3-Dichloropropane	95	70-130
1,1,1,2-Tetrachloroethane	107	70-130
Bromobenzene	86	70-130
n-Butylbenzene	124	70-130
sec-Butylbenzene	142	70-130
tert-Butylbenzene	130	70-130
o-Chlorotoluene	112	70-130
p-Chlorotoluene	107	70-130
1,2-Dibromo-3-chloropropane	82	70-130
Hexachlorobutadiene	90	70-130
Isopropylbenzene	127	70-130
p-Isopropyltoluene	133	70-130
Naphthalene	93	70-130
n-Propylbenzene	121	70-130
1,2,3-Trichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	103	70-130
1,3,5-Trimethylbenzene	125	70-130
1,2,4-Trimethylbenzene	125	70-130
Ethyl ether	88	70-130
Isopropyl Ether	70	70-130
Ethyl-Tert-Butyl-Ether	71	70-130
Tertiary-Amyl Methyl Ether	73	70-130
1,4-Dioxane	83	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	79	70-130
Dibromofluoromethane	96	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402475

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG165641-2)							
Volatile Organics by MCP 8260B/5035-High				54 8260B		0318 09:42	RY
Methylene chloride	ND	ug/kg	500				
1,1-Dichloroethane	ND	ug/kg	75.				
Chloroform	ND	ug/kg	75.				
Carbon tetrachloride	ND	ug/kg	50.				
1,2-Dichloropropane	ND	ug/kg	180				
Dibromochloromethane	ND	ug/kg	50.				
1,1,2-Trichloroethane	ND	ug/kg	75.				
Tetrachloroethene	ND	ug/kg	50.				
Chlorobenzene	ND	ug/kg	50.				
Trichlorofluoromethane	ND	ug/kg	250				
1,2-Dichloroethane	ND	ug/kg	50.				
1,1,1-Trichloroethane	ND	ug/kg	50.				
Bromodichloromethane	ND	ug/kg	50.				
trans-1,3-Dichloropropene	ND	ug/kg	50.				
cis-1,3-Dichloropropene	ND	ug/kg	50.				
1,1-Dichloropropene	ND	ug/kg	250				
Bromoform	ND	ug/kg	200				
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.				
Benzene	ND	ug/kg	50.				
Toluene	ND	ug/kg	75.				
Ethylbenzene	ND	ug/kg	50.				
Chloromethane	ND	ug/kg	250				
Bromomethane	ND	ug/kg	100				
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402475

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG165641-2)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0318 09:42	RY
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	102.	%	70-130				
Toluene-d8	96.0	%	70-130				
4-Bromofluorobenzene	89.0	%	70-130				
Dibromofluoromethane	96.0	%	70-130				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402475

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
C	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0402475-01A	Vial MeOH preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-01B	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-01C	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-01D	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-01E	Plastic 2oz unpreserved for TS	C	N/A	0.7C	Y	Absent	TS
L0402475-02A	Vial MeOH preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-02B	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-02C	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-02D	Vial NaHSO4 preserved	C	N/A	0.7C	Y	Absent	MCP-8260H
L0402475-02E	Plastic 2oz unpreserved for TS	C	N/A	0.7C	Y	Absent	TS

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7406
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	30660-000	LABORATORY	ALPHA
PROJECT NAME	BOSTON SCHOOL	ADDRESS	
H&A CONTACT	STEVE PROVENSER	CONTACT	
DELIVERY DATE	3/16/04		
TURNAROUND TIME	3 DAYS		
PROJECT MANAGER	JOHN MANNEL		

Sample No.	Date	Time	Depth	Type	Analysis Requested: (1) VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity	(1)			Number of Containers
UST-STKPL4-S3	3/16/04	1300	—	SOIL	X									X			5
UST-STKPL5-S3	"	1315	—	SOIL	X									X			5

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) VOCs 8260

(1) TOTAL SOLIDS

Sampled and Relinquished by	Received by
Sign Todd Quinn	Sign
Print Todd Brian	Print
Firm H&A	Firm ALPHA
Date 3/16/04 Time 1430	Date 3/16/04 Time 1530
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 3-16-04 Time 1920	Date 3-16-04 Time 1920
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	X
Amber Glass	
Clear Glass	X
Preservative	A
Volume	2oz

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

___ This Chain of Custody Record (specify) _____ includes ✓ does not include samples defined as Drinking Water Samples.

NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☑ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☑ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003 AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0402380
Date Received: 12-MAR-2004
Date Reported: 19-MAR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402380
Date Reported: 19-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402380-01	CCP-SW8-S1	BELMONT, MA
L0402380-02	CCP-SW9-S1	BELMONT, MA
L0402380-03	CCP-SW10-S1	BELMONT, MA
L0402380-04	CCP-SW11-S1	BELMONT, MA
L0402380-05	CCP-SW12-S1	BELMONT, MA
L0402380-06	CCP-SW13-S1	BELMONT, MA
L0402380-07	CCP-SW14-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0402380

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

EPH

The S-1 limits could not be achieved on L0402380-03, -04 and -07 due to sample matrix.

In reference to question E, the surrogate % recovery for o-Terphenyl (176%) on L0402380-03 is above the acceptance criteria for the method due to co-elution of product with surrogate

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: L0402380-01
CCP-SW8-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:10
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	74.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-01
CCP-SW8-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0316 19:52	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.63
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.63
C9-C10 Aromatics	ND	mg/kg	2.63
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.63
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.63
Benzene	ND	mg/kg	0.132
Toluene	ND	mg/kg	0.132
Ethylbenzene	ND	mg/kg	0.132
p/m-Xylene	ND	mg/kg	0.132
o-Xylene	ND	mg/kg	0.132
Methyl tert butyl ether	ND	mg/kg	0.263
Naphthalene	ND	mg/kg	1.32

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	93.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-01
CCP-SW8-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 00:24	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	13.5
C19-C36 Aliphatics	16.8	mg/kg	13.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	13.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	13.5
Naphthalene	ND	mg/kg	0.676
2-Methylnaphthalene	ND	mg/kg	0.676
Acenaphthylene	ND	mg/kg	0.676
Acenaphthene	ND	mg/kg	0.676
Fluorene	ND	mg/kg	0.676
Phenanthrene	ND	mg/kg	0.676
Anthracene	ND	mg/kg	0.676
Fluoranthene	ND	mg/kg	0.676
Pyrene	ND	mg/kg	0.676
Benzo(a)anthracene	ND	mg/kg	0.676
Chrysene	ND	mg/kg	0.676
Benzo(b)fluoranthene	ND	mg/kg	0.676
Benzo(k)fluoranthene	ND	mg/kg	0.676
Benzo(a)pyrene	ND	mg/kg	0.676
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.676
Dibenzo(a,h)anthracene	ND	mg/kg	0.676
Benzo(g,h,i)perylene	ND	mg/kg	0.676

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	91.0	%	40-140
2-Bromonaphthalene	92.0	%	40-140

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: L0402380-02
CCP-SW9-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:15
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-02
CCP-SW9-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0316 20:42	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C10 Aromatics	ND	mg/kg	2.29
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.29
Benzene	ND	mg/kg	0.114
Toluene	ND	mg/kg	0.114
Ethylbenzene	ND	mg/kg	0.114
p/m-Xylene	ND	mg/kg	0.114
o-Xylene	ND	mg/kg	0.114
Methyl tert butyl ether	ND	mg/kg	0.229
Naphthalene	ND	mg/kg	1.14

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	95.0	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-02
CCP-SW9-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 01:09	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	63.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	88.0	%	40-140
2-Bromonaphthalene	87.0	%	40-140

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: L0402380-03
CCP-SW10-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:22
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	67.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-03
CCP-SW10-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0316 21:33	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.32
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.32
C9-C10 Aromatics	ND	mg/kg	3.32
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.32
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.32
Benzene	ND	mg/kg	0.166
Toluene	ND	mg/kg	0.166
Ethylbenzene	ND	mg/kg	0.166
p/m-Xylene	ND	mg/kg	0.166
o-Xylene	ND	mg/kg	0.166
Methyl tert butyl ether	ND	mg/kg	0.332
Naphthalene	ND	mg/kg	1.66

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	77.0	%	70-130
2,5-Dibromotoluene-FID	83.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-03
CCP-SW10-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 01:55	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were greater than 140%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	251.	mg/kg	14.9
C19-C36 Aliphatics	547.	mg/kg	14.9
C11-C22 Aromatics, Unadjusted	494.	mg/kg	14.9
C11-C22 Aromatics, Adjusted	488.	mg/kg	14.9
Naphthalene	ND	mg/kg	0.746
2-Methylnaphthalene	ND	mg/kg	0.746
Acenaphthylene	ND	mg/kg	0.746
Acenaphthene	ND	mg/kg	0.746
Fluorene	ND	mg/kg	0.746
Phenanthrene	2.45	mg/kg	0.746
Anthracene	ND	mg/kg	0.746
Fluoranthene	ND	mg/kg	0.746
Pyrene	1.58	mg/kg	0.746
Benzo(a)anthracene	ND	mg/kg	0.746
Chrysene	1.28	mg/kg	0.746
Benzo(b)fluoranthene	ND	mg/kg	0.746
Benzo(k)fluoranthene	ND	mg/kg	0.746
Benzo(a)pyrene	ND	mg/kg	0.746
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.746
Dibenzo(a,h)anthracene	ND	mg/kg	0.746
Benzo(g,h,i)perylene	ND	mg/kg	0.746

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	79.0	%	40-140
o-Terphenyl	176.	%	40-140
2-Fluorobiphenyl	91.0	%	40-140
2-Bromonaphthalene	95.0	%	40-140

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: L0402380-04
CCP-SW11-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:35
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	40.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-04
CCP-SW11-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0316 23:14	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	5.07
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	5.07
C9-C10 Aromatics	ND	mg/kg	5.07
C5-C8 Aliphatics, Adjusted	ND	mg/kg	5.07
C9-C12 Aliphatics, Adjusted	ND	mg/kg	5.07
Benzene	ND	mg/kg	0.253
Toluene	ND	mg/kg	0.253
Ethylbenzene	ND	mg/kg	0.253
p/m-Xylene	ND	mg/kg	0.253
o-Xylene	ND	mg/kg	0.253
Methyl tert butyl ether	ND	mg/kg	0.507
Naphthalene	ND	mg/kg	2.53

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	86.0	%	70-130
2,5-Dibromotoluene-FID	92.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-04
CCP-SW11-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 02:41	LL

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	25.0
C19-C36 Aliphatics	60.1	mg/kg	25.0
C11-C22 Aromatics, Unadjusted	38.2	mg/kg	25.0
C11-C22 Aromatics, Adjusted	38.2	mg/kg	25.0
Naphthalene	ND	mg/kg	1.25
2-Methylnaphthalene	ND	mg/kg	1.25
Acenaphthylene	ND	mg/kg	1.25
Acenaphthene	ND	mg/kg	1.25
Fluorene	ND	mg/kg	1.25
Phenanthrene	ND	mg/kg	1.25
Anthracene	ND	mg/kg	1.25
Fluoranthene	ND	mg/kg	1.25
Pyrene	ND	mg/kg	1.25
Benzo(a)anthracene	ND	mg/kg	1.25
Chrysene	ND	mg/kg	1.25
Benzo(b)fluoranthene	ND	mg/kg	1.25
Benzo(k)fluoranthene	ND	mg/kg	1.25
Benzo(a)pyrene	ND	mg/kg	1.25
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	1.25
Dibenzo(a,h)anthracene	ND	mg/kg	1.25
Benzo(g,h,i)perylene	ND	mg/kg	1.25

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	56.0	%	40-140
o-Terphenyl	66.0	%	40-140
2-Fluorobiphenyl	86.0	%	40-140
2-Bromonaphthalene	85.0	%	40-140

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: L0402380-05
CCP-SW12-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:45
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-05
CCP-SW12-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0317 00:05	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.76
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.76
C9-C10 Aromatics	ND	mg/kg	2.76
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.76
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.76
Benzene	ND	mg/kg	0.138
Toluene	ND	mg/kg	0.138
Ethylbenzene	ND	mg/kg	0.138
p/m-Xylene	ND	mg/kg	0.138
o-Xylene	ND	mg/kg	0.138
Methyl tert butyl ether	ND	mg/kg	0.276
Naphthalene	ND	mg/kg	1.38

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	88.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-05
CCP-SW12-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 03:26	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	12.8	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	18.1	mg/kg	12.3
C11-C22 Aromatics, Adjusted	18.1	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	61.0	%	40-140
o-Terphenyl	80.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	86.0	%	40-140

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: L0402380-06
CCP-SW13-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 09:55
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-06
CCP-SW13-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0317 00:55	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.91
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.91
C9-C10 Aromatics	ND	mg/kg	2.91
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.91
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.91
Benzene	ND	mg/kg	0.146
Toluene	ND	mg/kg	0.146
Ethylbenzene	ND	mg/kg	0.146
p/m-Xylene	ND	mg/kg	0.146
o-Xylene	ND	mg/kg	0.146
Methyl tert butyl ether	ND	mg/kg	0.291
Naphthalene	ND	mg/kg	1.46

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	76.0	%	70-130
2,5-Dibromotoluene-FID	81.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-06
CCP-SW13-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0318 22:53	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	41.0	%	40-140
o-Terphenyl	57.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

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: L0402380-07
CCP-SW14-S1
Sample Matrix: SOIL

Date Collected: 12-MAR-2004 10:50
Date Received : 12-MAR-2004
Date Reported : 19-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	59.	%	0.10	30 2540G		0316 18:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-07
CCP-SW14-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0317 01:46	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	4.34
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	4.34
C9-C10 Aromatics	ND	mg/kg	4.34
C5-C8 Aliphatics, Adjusted	ND	mg/kg	4.34
C9-C12 Aliphatics, Adjusted	ND	mg/kg	4.34
Benzene	ND	mg/kg	0.217
Toluene	ND	mg/kg	0.217
Ethylbenzene	ND	mg/kg	0.217
p/m-Xylene	ND	mg/kg	0.217
o-Xylene	ND	mg/kg	0.217
Methyl tert butyl ether	ND	mg/kg	0.434
Naphthalene	ND	mg/kg	2.17

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	78.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402380-07
CCP-SW14-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0319 04:12	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	33.9
C19-C36 Aliphatics	190.	mg/kg	33.9
C11-C22 Aromatics, Unadjusted	299.	mg/kg	33.9
C11-C22 Aromatics, Adjusted	253.	mg/kg	33.9
Naphthalene	ND	mg/kg	1.69
2-Methylnaphthalene	ND	mg/kg	1.69
Acenaphthylene	ND	mg/kg	1.69
Acenaphthene	ND	mg/kg	1.69
Fluorene	ND	mg/kg	1.69
Phenanthrene	5.40	mg/kg	1.69
Anthracene	ND	mg/kg	1.69
Fluoranthene	8.29	mg/kg	1.69
Pyrene	7.53	mg/kg	1.69
Benzo(a)anthracene	3.20	mg/kg	1.69
Chrysene	4.82	mg/kg	1.69
Benzo(b)fluoranthene	5.12	mg/kg	1.69
Benzo(k)fluoranthene	4.14	mg/kg	1.69
Benzo(a)pyrene	3.90	mg/kg	1.69
Indeno(1,2,3-cd)Pyrene	3.35	mg/kg	1.69
Dibenzo(a,h)anthracene	ND	mg/kg	1.69
Benzo(g,h,i)perylene	ND	mg/kg	1.69

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	65.0	%	40-140
o-Terphenyl	116.	%	40-140
2-Fluorobiphenyl	82.0	%	40-140
2-Bromonaphthalene	87.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Job Number: L0402380

ter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-07 (L0402335-01, WG165442)					
lids, Total	88.	87.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-02,06-07 (L0402332-15, WG165316)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	87.0	80.0	%	8	70-130
2,5-Dibromotoluene-FID	92.0	81.0	%	13	70-130
Volatile Petroleum Hydrocarbons for sample(s) 03-05 (L0402380-03, WG165623)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	77.0	93.0	%	19	70-130
2,5-Dibromotoluene-FID	83.0	109.	%	27	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-07 (L0402380-06, WG165363)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	12.8	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402380

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-07 (L0402380-06, WG165363)					
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	41.0	39.0	%	5	40-140
o-Terphenyl	57.0	52.0	%	9	40-140
2-Fluorobiphenyl	76.0	82.0	%	8	40-140
2-Bromonaphthalene	77.0	84.0	%	9	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402380

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02,06-07 (WG165316)		
Benzene	99	70-130
Toluene	89	70-130
Ethylbenzene	104	70-130
p/m-Xylene	93	70-130
o-Xylene	93	70-130
Methyl tert butyl ether	85	70-130
Naphthalene	92	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	93	70-130
2,5-Dibromotoluene-FID	97	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 03-05 (WG165623)		
Benzene	95	70-130
Toluene	86	70-130
Ethylbenzene	102	70-130
p/m-Xylene	92	70-130
o-Xylene	91	70-130
Methyl tert butyl ether	82	70-130
Naphthalene	92	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	92	70-130
2,5-Dibromotoluene-FID	97	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-07 (WG165363)		
Naphthalene	65	40-140
Acenaphthene	69	40-140
Anthracene	90	40-140
Pyrene	92	40-140
Chrysene	98	40-140
Nonane (C9)	61	40-140
Tetradecane (C14)	74	40-140
Nonadecane (C19)	96	40-140
Eicosane (C20)	96	40-140
Octacosane (C28)	93	40-140
Surrogate(s)		
Chloro-Octadecane	75	40-140
o-Terphenyl	95	40-140
2-Fluorobiphenyl	86	40-140
2-Bromonaphthalene	87	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402380

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02,06-07 (WG165316-5)							
Volatile Petroleum Hydrocarbons				47 98-1		0316 08:12	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	94.0	%	70-130				
2,5-Dibromotoluene-FID	97.0	%	70-130				
Blank Analysis for sample(s) 03-05 (WG165623-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0316 08:12	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	94.0	%	70-130				
2,5-Dibromotoluene-FID	97.0	%	70-130				
Blank Analysis for sample(s) 01-07 (WG165363-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0315 20:00	0318 21:21	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402380

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-07 (WG165363-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0315 20:00	0318 21:21	LL
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	59.0	%	40-140				
o-Terphenyl	74.0	%	40-140				
2-Fluorobiphenyl	82.0	%	40-140				
2-Bromonaphthalene	83.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402380

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
L0402380-01A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-01B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-02A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-02B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-03A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-03B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-04A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-04B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-05A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-05B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-06A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-06B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402380-07A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402380-07B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF COUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 30660-000	LABORATORY Alpha	DELIVERY DATE	
PROJECT NAME Burdonik School	ADDRESS	TURNAROUND TIME 5 Days	
H&A CONTACT Steve Provenbol	CONTACT	PROJECT MANAGER Joel Mooney	

Analysis Requested

Sample No.	Date	Time	Depth (in)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
CCP-SW8-S1	3/12/04	910	0-6	Soil					X	X							2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
CCP-SW9-S1	↓	915	↓	↓					X	X							2	(1)&(2) EPH/VPH and
CCP-SW10-S1	↓	922	↓	↓					X	X							2	Target Analytes
CCP-SW11-S1	↓	935	↓	↓					X	X							2	
CCP-SW12-S1	↓	945	↓	↓					X	X							2	
CCP-SW13-S1	↓	955	↓	↓					X	X							2	
CCP-SW14-S1	↓	1050	↓	↓					X	X							2	

Sampled and Relinquished by	Received by
Sign [signature]	Sign [signature]
Print Todd Burgan	Print Mark Dobday
Firm H&A	Firm H&A
Date 3/12/04 Time 1250	Date 3/12/04 Time 1250

Relinquished by	Received by
Sign [signature]	Sign [signature]
Print Mark Dobday	Print [illegible]
Firm H&A	Firm Alpha
Date 3/12/04 Time 1619	Date 3/12/04 Time [illegible]

Relinquished by	Received by
Sign [signature]	Sign [signature]
Print	Print
Firm	Firm
Date 3/12 Time 1815	Date 3/12 Time 1815

LIQUID

	VPH	EPH
VOA Vial		
Amber Glass		
Plastic Bottle		
Preservative		
Volume		

SOLID

	VPH	EPH
VOA Vial	X	
Amber Glass		X
Clear Glass		
Preservative	G	A
Volume	[illegible]	8oz

Sampling Comments

* Please fax results to Mike Cuonato @ 617.886.7717

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

____ This Chain of Custody Record (specify) ____ includes ✓ does not include samples defined as Drinking Water Samples.

NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ____ analyze ____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☑ RC-S1 ☑ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☑ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200

Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0402771

Date Received: 24-MAR-2004

Date Reported: 29-MAR-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO

F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402771
Date Reported: 29-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402771-01	ESW1-S4	BELMONT, MA
L0402771-02	SSW3-S1	BELMONT, MA

Laboratory Job Number: L0402771

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

EPH

In reference to question E, the Surrogate % Recovery for Chloro-octadecane on the associated duplicate is below acceptable limits.

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: L0402771-01
ESW1-S4
Sample Matrix: SOIL

Date Collected: 23-MAR-2004 09:25
Date Received : 24-MAR-2004
Date Reported : 29-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0324 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402771-01
ESW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0325 10:46	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.08
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.08
C9-C10 Aromatics	ND	mg/kg	3.08
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.08
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.08
Benzene	ND	mg/kg	0.154
Toluene	ND	mg/kg	0.154
Ethylbenzene	ND	mg/kg	0.154
p/m-Xylene	ND	mg/kg	0.154
o-Xylene	ND	mg/kg	0.154
Methyl tert butyl ether	ND	mg/kg	0.308
Naphthalene	ND	mg/kg	1.54

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	98.0	%	70-130
2,5-Dibromotoluene-FID	94.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402771-01
ESW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0325 10:30	0327 22:47	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	55.0	%	40-140
o-Terphenyl	61.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	76.0	%	40-140

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: L0402771-02
SSW3-S1
Sample Matrix: SOIL

Date Collected: 23-MAR-2004 11:20
Date Received : 24-MAR-2004
Date Reported : 29-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0324 22:00	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402771-02
SSW3-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0325 11:37	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.99
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.99
C9-C10 Aromatics	ND	mg/kg	1.99
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.99
C9-C12 Aliphatics, Adjusted	ND	mg/kg	1.99
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.199
Naphthalene	ND	mg/kg	0.997

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	97.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402771-02
SSW3-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0325 10:30	0327 23:32	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.6
C19-C36 Aliphatics	ND	mg/kg	10.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.6
Naphthalene	ND	mg/kg	0.532
2-Methylnaphthalene	ND	mg/kg	0.532
Acenaphthylene	ND	mg/kg	0.532
Acenaphthene	ND	mg/kg	0.532
Fluorene	ND	mg/kg	0.532
Phenanthrene	ND	mg/kg	0.532
Anthracene	ND	mg/kg	0.532
Fluoranthene	ND	mg/kg	0.532
Pyrene	ND	mg/kg	0.532
Benzo(a)anthracene	ND	mg/kg	0.532
Chrysene	ND	mg/kg	0.532
Benzo(b)fluoranthene	ND	mg/kg	0.532
Benzo(k)fluoranthene	ND	mg/kg	0.532
Benzo(a)pyrene	ND	mg/kg	0.532
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.532
Dibenzo(a,h)anthracene	ND	mg/kg	0.532
Benzo(g,h,i)perylene	ND	mg/kg	0.532

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	61.0	%	40-140
o-Terphenyl	81.0	%	40-140
2-Fluorobiphenyl	81.0	%	40-140
2-Bromonaphthalene	83.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402771

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-02 (L0402750-01, WG166101)					
Solids, Total	89.	89.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01-02 (L0402771-01, WG166253)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	98.0	106.	%	8	70-130
2,5-Dibromotoluene-FID	94.0	111.	%	17	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-02 (L0402771-02, WG166158)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	61.0	32.0	%	62	40-140
o-Terphenyl	81.0	41.0	%	66	40-140
2-Fluorobiphenyl	81.0	71.0	%	13	40-140
2-Bromonaphthalene	83.0	74.0	%	11	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402771

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG166253)		
Benzene	100	70-130
Toluene	91	70-130
Ethylbenzene	106	70-130
p/m-Xylene	94	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	86	70-130
Naphthalene	97	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	89	70-130
2,5-Dibromotoluene-FID	89	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG166158)		
Naphthalene	40	40-140
Acenaphthene	43	40-140
Anthracene	55	40-140
Pyrene	60	40-140
Chrysene	64	40-140
Nonane (C9)	41	40-140
Tetradecane (C14)	46	40-140
Nonadecane (C19)	58	40-140
Eicosane (C20)	59	40-140
Octacosane (C28)	59	40-140
Surrogate(s)		
Chloro-Octadecane	47	40-140
o-Terphenyl	58	40-140
2-Fluorobiphenyl	72	40-140
2-Bromonaphthalene	76	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402771

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG166253-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0325 08:12	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01-02 (WG166158-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0325 10:30	0327 20:30	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	50.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	75.0	%	40-140				
2-Bromonaphthalene	78.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402771

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
L0402771-01A	Vial MeOH preserved	A	NA	3.2 C	Y	Absent	VPH-DELUX
L0402771-01B	Amber 250ml unpreserved	A	NA	3.2 C	Y	Absent	EPH-DELUX, TS
L0402771-02A	Vial MeOH preserved	A	NA	3.2 C	Y	Absent	VPH-DELUX
L0402771-02B	Amber 250ml unpreserved	A	NA	3.2 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

03/26/2004 FRI 1:39 FAX

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30660-000
PROJECT NAME Burbank School
H&A CONTACT Steve Pearnsol

LABORATORY Alpha
ADDRESS
CONTACT

DELIVERY DATE 03/24/04
TURNAROUND TIME 3 DAYS
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth (ft)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH ① Full Suite Carbons only	EPH ② Full Suite Carbons only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
SS101-S4	3/23/04	925	7	Soil					X	X							1	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
SSW3-S1	"	1120	7	"					2	2							2	①② EPH/VPH & Target Analytes

REVISED 25 MARCH 2004
[signature]
Haley & Aldrich

Sampled and Relinquished by	Received by
Sign Todd Butler	Sign Deshond Crawford
Print Todd Buter	Print Desmond Crawford
Firm H&A	Firm H&A
Date 3/23/04 Time 1635	Date 03/23/04 Time 16:35
Relinquished by	**Received by**
Sign Deshond Crawford	Sign [signature]
Print Desmond Crawford	Print Winslow
Firm H&A	Firm [illegible]
Date 03/24/04 Time 16:15	Date [illegible] Time
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print	Print Adler Desan
Firm	Firm Alpha
Date Time	Date 3/24/04 Time 18:28

LIQUID

VOA Vial											
Amber Glass											
Plastic Bottle											
Preservative											
Volume											

SOLID

	VPH	EPH									
VOA Vial	X										
Amber Glass		X									
Clear Glass											
Preservative	G	A									
Volume											

PRESERVATION KEY

A Sample chilled   C NaOH   E H_2SO_4 G Methanol
B Sample filtered   D HNO_3 F HCL   H Water/NaHSO4 (circle)

Sampling Comments
Please Fax Data to Mike Crowley @ 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) ___ includes ___ does not include samples defined as Drinking Water Samples.
NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ___ analyze ___ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☐ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

WHITE - Laboratory   CANARY - Project Manager   PINK - Haley & Aldrich Laboratory   GOLDENROD - Haley & Aldrich Contact

Form 3003   AUGUST 2003

FAX TO: KIM BAILEY @ ALPHA 508-898-9193

Thanks Joel

** TOTAL PAGE.01 **

001/001

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

Page 1 of 1

H&A FILE NO.	30660-000	LABORATORY	NEPHA
PROJECT NAME	BURBANK SCHOOL	ADDRESS	
H&A CONTACT	STEVE REVERSOL	CONTACT	
DELIVERY DATE	03/24/04		
TURNAROUND TIME	3 DAYS		
PROJECT MANAGER	JOEL MOONEY		

Sample No.	Date	Time	Depth (ft)	Type	Analysis Requested: VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
ESW01-S4	3/23/04	925	7	SOIL					X	X							2
	"	1120	7	"					X	X							2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) (2) EPH/VPH & TARGET ANALYTES

Sampled and Relinquished by	Received by
Sign Todd R Bulte	Sign Desmond Crawford
Print Todd Boren	Print DESMOND CRAWFORD
Firm H+A	Firm H+A
Date 3/23/04 Time 1635	Date 03/23/04 Time 16:35
Relinquished by	**Received by**
Sign Desmond Crawford	Sign [illegible]
Print DESMOND CRAWFORD	Print [illegible]
Firm H+A	Firm [illegible]
Date 03/24/04 Time 16:15	Date [illegible] Time [illegible]
Relinquished by	**Received by**
Sign [illegible]	Sign [illegible]
Print	Print Asher Desen
Firm	Firm NEPH
Date Time	Date 3/24/04 Time 1825

	VOA Vial	Amber Glass	Plastic Bottle	Clear Glass	Preservative	Volume
LIQUID						
SOLID	X	X			G	40ml
					A	80z

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

PLEASE FAX DATA TO MIKE CROWLEY @ 617.886.7777

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ___ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
- NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☐ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☐ GW2
- ☐ GW3

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-102
Site: BURBANK SCHOOL

Laboratory Job Number: L0402773
Date Received: 24-MAR-2004
Date Reported: 29-MAR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402773
Date Reported: 29-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402773-01	WSW1-S2	

Laboratory Job Number: L0402773

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

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: L0402773-01
WSW1-S2
Sample Matrix: SOIL

Date Collected: 24-MAR-2004 10:00
Date Received : 24-MAR-2004
Date Reported : 29-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0324 22:00	LK

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

Laboratory Sample Number: L0402773-01
WSW1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0325 12:27	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	4.02
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	4.02
C9-C10 Aromatics	ND	mg/kg	4.02
C5-C8 Aliphatics, Adjusted	ND	mg/kg	4.02
C9-C12 Aliphatics, Adjusted	ND	mg/kg	4.02
Benzene	ND	mg/kg	0.201
Toluene	ND	mg/kg	0.201
Ethylbenzene	ND	mg/kg	0.201
p/m-Xylene	ND	mg/kg	0.201
o-Xylene	ND	mg/kg	0.201
Methyl tert butyl ether	ND	mg/kg	0.402
Naphthalene	ND	mg/kg	2.01

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	100.	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402773-01
WSW1-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0325 10:30	0328 00:18	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	52.0	%	40-140
o-Terphenyl	71.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	86.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402773

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0402750-01, WG166101)					
Solids, Total	89.	89.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0402771-01, WG166253)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	98.0	106.	%	8	70-130
2,5-Dibromotoluene-FID	94.0	111.	%	17	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0402771-02, WG166158)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	61.0	32.0	%	62	40-140
o-Terphenyl	81.0	41.0	%	66	40-140
2-Fluorobiphenyl	81.0	71.0	%	13	40-140
2-Bromonaphthalene	83.0	74.0	%	11	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402773

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG166253)		
Benzene	100	70-130
Toluene	91	70-130
Ethylbenzene	106	70-130
p/m-Xylene	94	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	86	70-130
Naphthalene	97	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	89	70-130
2,5-Dibromotoluene-FID	89	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG166158)		
Naphthalene	40	40-140
Acenaphthene	43	40-140
Anthracene	55	40-140
Pyrene	60	40-140
Chrysene	64	40-140
Nonane (C9)	41	40-140
Tetradecane (C14)	46	40-140
Nonadecane (C19)	58	40-140
Eicosane (C20)	59	40-140
Octacosane (C28)	59	40-140
Surrogate(s)		
Chloro-Octadecane	47	40-140
o-Terphenyl	58	40-140
2-Fluorobiphenyl	72	40-140
2-Bromonaphthalene	76	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402773

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166253-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0325 08:12	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01 (WG166158-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0325 10:30	0327 20:30	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	50.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	75.0	%	40-140				
2-Bromonaphthalene	78.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402773

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
L0402773-01A	Vial MeOH preserved	A	NA	3.2 C	Y	Absent	VPH-DELUX
L0402773-01B	Amber 250ml unpreserved	A	NA	3.2 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO.	30660-102	LABORATORY	Alpha	DELIVERY DATE	03/24/04
PROJECT NAME	Burbank School	ADDRESS		TURNAROUND TIME	3 Days
H&A CONTACT	Steve Provenzal	CONTACT		PROJECT MANAGER	Joel Mooney

Analysis Requested

Sample No.	Date	Time	Depth (Ft)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	① (VPH) Full Suite C-ranges only	② (EPH) Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
W5W1-S2	3/24/04	1000	6-12	Soil					X	X							2	Laboratory to use applicable DEP CAM methods, unless otherwise directed. (1)&(2) EDH/VPH & Target Analytes

Sampled and Relinquished by	Received by
Sign Todd R Butt	Sign [illegible]
Print Todd Buter	Print [illegible]
Firm H&A	Firm Alpha
Date 3/24/04 Time 1520	Date 3/24/04 Time 1615
Relinquished by	**Received by**
Sign [illegible]	Sign [illegible]
Print	Print D. Ladebauche
Firm	Firm Alpha
Date 3/24/04 Time 1825	Date 3/24/04 Time 1825
Relinquished by	**Received by**
Sign	Sign [illegible]
Print	Print [illegible]
Firm	Firm Alpha
Date Time	Date 3/24/04 Time 1828

LIQUID	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	① VPH	② EPH	TPH	TCLP	Reactivity			
VOA Vial												
Amber Glass												
Plastic Bottle												
Preservative												
Volume												
SOLID												
VOA Vial					X							
Amber Glass						X						
Clear Glass												
Preservative					A	A						
Volume					40z	8oz						

Sampling Comments

Please Fax Results to Mike Ceravino @ 617.886.7777

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_________ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_________ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_________ This Chain of Custody Record (specify) _________ includes _________ does not include samples defined as Drinking Water Samples.

_________ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _________ analyze _________ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☐ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client:	Haley & Aldrich, Inc.	**Laboratory Job Number:**	L0402832
Address:	465 Medford Street, Suite 2200		
	Boston, MA 02129-1400	**Date Received:**	25-MAR-2004
Attn:	Mr. Steve Provencal	**Date Reported:**	31-MAR-2004
Project Number:	30660-000	**Delivery Method:**	Alpha
Site:	BURBANK SCHOOL		

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?	YES

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?	YES

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

Laboratory Job Number: L0402832
Date Reported: 31-MAR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402832-01	SW-CORNER-S2	BELMONT, MA
L0402832-02	CB-ESW-S2	BELMONT, MA
L0402832-03	CB-BOT-S2	BELMONT, MA
L0402832-04	TRIP BLANK-VPH	BELMONT, MA

Laboratory Job Number: L0402832

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0402832-01
SW-CORNER-S2
Sample Matrix: SOIL

Date Collected: 25-MAR-2004 08:30
Date Received : 25-MAR-2004
Date Reported : 31-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0325 23:15	LK

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

Laboratory Sample Number: L0402832-01
SW-CORNER-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0326 15:05	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.40
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.40
C9-C10 Aromatics	ND	mg/kg	2.40
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.40
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.40
Benzene	ND	mg/kg	0.120
Toluene	ND	mg/kg	0.120
Ethylbenzene	ND	mg/kg	0.120
p/m-Xylene	ND	mg/kg	0.120
o-Xylene	ND	mg/kg	0.120
Methyl tert butyl ether	ND	mg/kg	0.240
Naphthalene	ND	mg/kg	1.20

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	92.0	%	70-130
2,5-Dibromotoluene-FID	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: L0402832-01
SW-CORNER-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0330 08:45	0330 17:14	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	68.0	%	40-140
2-Fluorobiphenyl	66.0	%	40-140
2-Bromonaphthalene	68.0	%	40-140

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: L0402832-02
CB-ESW-S2
Sample Matrix: SOIL

Date Collected: 25-MAR-2004 14:10
Date Received : 25-MAR-2004
Date Reported : 31-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0325 23:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402832-02
CB-ESW-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0326 16:47	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.18
C9-C12 Aliphatics, Unadjusted	3.26	mg/kg	2.18
C9-C10 Aromatics	ND	mg/kg	2.18
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.18
C9-C12 Aliphatics, Adjusted	3.26	mg/kg	2.18
Benzene	ND	mg/kg	0.109
Toluene	ND	mg/kg	0.109
Ethylbenzene	ND	mg/kg	0.109
p/m-Xylene	ND	mg/kg	0.109
o-Xylene	ND	mg/kg	0.109
Methyl tert butyl ether	ND	mg/kg	0.218
Naphthalene	ND	mg/kg	1.09

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	87.0	%	70-130
2,5-Dibromotoluene-FID	97.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402832-02
CB-ESW-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0330 08:45	0330 16:25	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	75.0	%	40-140
2-Fluorobiphenyl	75.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

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: L0402832-03
CB-BOT-S2
Sample Matrix: SOIL

Date Collected: 25-MAR-2004 14:05
Date Received : 25-MAR-2004
Date Reported : 31-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0325 23:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402832-03
CB-BOT-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0326 17:37	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.81
C9-C12 Aliphatics, Unadjusted	2.70	mg/kg	1.81
C9-C10 Aromatics	ND	mg/kg	1.81
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.81
C9-C12 Aliphatics, Adjusted	2.70	mg/kg	1.81
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.181
Naphthalene	ND	mg/kg	0.903

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	84.0	%	70-130
2,5-Dibromotoluene-FID	92.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402832-03
CB-BOT-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0330 08:45	0330 17:08	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	54.0	%	40-140
o-Terphenyl	68.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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: L0402832-04
TRIP BLANK-VPH
Sample Matrix: SOIL

Date Collected: 25-MAR-2004 00:00
Date Received : 25-MAR-2004
Date Reported : 31-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0326 11:13	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	100.	%	70-130
2,5-Dibromotoluene-FID	107.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402832

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-03 (L0402832-01, WG166213)					
Solids, Total	96.	96.	%	0	
Volatile Petroleum Hydrocarbons for sample(s) 02-04 (L0402771-01, WG166253)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	98.0	106.	%	8	70-130
2,5-Dibromotoluene-FID	94.0	111.	%	17	70-130
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0402832-01, WG166384)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	92.0	90.0	%	2	70-130
2,5-Dibromotoluene-FID	104.	99.0	%	5	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-03 (L0402832-01, WG166496)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402832

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01-03 (L0402832-01, WG166496)					
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	51.0	60.0	%	16	40-140
o-Terphenyl	68.0	71.0	%	4	40-140
2-Fluorobiphenyl	66.0	70.0	%	6	40-140
2-Bromonaphthalene	68.0	71.0	%	4	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402832

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 02-04 (WG166253)		
Benzene	100	70-130
Toluene	91	70-130
Ethylbenzene	106	70-130
p/m-Xylene	94	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	86	70-130
Naphthalene	97	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	89	70-130
2,5-Dibromotoluene-FID	89	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG166384)		
Benzene	96	70-130
Toluene	90	70-130
Ethylbenzene	106	70-130
p/m-Xylene	95	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	82	70-130
Naphthalene	87	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	96	70-130
2,5-Dibromotoluene-FID	98	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG166496)		
Naphthalene	50	40-140
Acenaphthene	59	40-140
Anthracene	72	40-140
Pyrene	78	40-140
Chrysene	79	40-140
Nonane (C9)	50	40-140
Tetradecane (C14)	61	40-140
Nonadecane (C19)	76	40-140
Eicosane (C20)	77	40-140
Octacosane (C28)	73	40-140
Surrogate(s)		
Chloro-Octadecane	58	40-140
o-Terphenyl	78	40-140
2-Fluorobiphenyl	65	40-140
2-Bromonaphthalene	59	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402832

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-04 (WG166253-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0326 09:02	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01 (WG166384-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0326 09:02	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	99.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01-03 (WG166496-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0330 08:45	0330 16:25	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402832

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG166496-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0330 08:45	0330 16:25	LL
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	55.0	%	40-140				
o-Terphenyl	75.0	%	40-140				
2-Fluorobiphenyl	72.0	%	40-140				
2-Bromonaphthalene	66.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402832

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
L0402832-01A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402832-01B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402832-02A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402832-02B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402832-03A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX
L0402832-03B	Amber 250ml unpreserved	A	N/A	1.9 C	Y	Absent	EPH-DELUX, TS
L0402832-04A	Vial MeOH preserved	A	N/A	1.9 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO. 30100-000
PROJECT NAME BURBANK SCHOOL
H&A CONTACT STEVE PROVENCAL

LABORATORY ICON A
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 3 DAYS
PROJECT MANAGER JOEL MCCOREY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
SW-CORNER-S2	3/25/04	0830	—	SOIL					X	X							2
CB-ESW-S2	"	1410	—	"					X	X							2
CB-BOT-S2	"	1405	—	"					X	X							2
TripBlank-VPH									X								1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.
(1)&(2) EPH/VPH and target analyts.

Sampled and Relinquished by
Sign Todd R Buzier
Print Todd Buzier
Firm H&A
Date 3/25/04 Time 1535

Received by
Sign
Print Mirka Dobday
Firm H&A
Date 3/25/04 Time 1535

Relinquished by
Sign
Print Mirka Dobday
Firm H&A
Date 3/25/04 Time 1610

Received by
Sign
Print
Firm
Date 3/25/04 Time 1610

Relinquished by
Sign
Print
Firm
Date 3/25 Time 2010

Received by
Sign
Print
Firm
Date 3/25 Time 2010

LIQUID	SOLID
VOA Vial	VOA Vial
Amber Glass	Amber Glass
Plastic Bottle	Clear Glass
Preservative	Preservative
Volume	Volume

Sampling Comments
PLEASE FAX RESULTS TO MIKE CROWLEY 617.886.7777

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- MA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ____ This Chain of Custody Record (specify) ____ includes ____ does not include samples defined as Drinking Water Samples.
- MA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ____ analyze ____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☑ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client:	Haley & Aldrich, Inc.	**Laboratory Job Number:**	L0402870
Address:	465 Medford Street, Suite 2200		
	Boston, MA 02129-1400	**Date Received:**	26-MAR-2004
Attn:	Mr. Steve Provencal	**Date Reported:**	05-APR-2004
Project Number:	30660-000	**Delivery Method:**	Alpha
Site:	BURBANK SCHOOL		

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

Laboratory Job Number: L0402870
Date Reported: 05-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402870-01	UST-STKPL6-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0402870

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of PCB by method 8082 and for the analysis of SemiVolatile Organics by method 8270C.

Report Submission

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

Volatile Organics

L0402870-01 has elevated limits of detection due to the 2x dilution required by the elevated concentrations of target compounds in the sample.

SemiVolatile Organics

The RCS-1 limit was not achieved for 3,3'-Dichlorobenzidine.

Non-MCP Related Narratives

TPH-8100

L0402870-01 has elevated limits of detection due to the 5x dilution required by the elevated concentrations of target compounds in the sample.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0402870-01
UST-STKPL6-S1
Sample Matrix: SOIL

Date Collected: 26-MAR-2004 10:30
Date Received : 26-MAR-2004
Date Reported : 05-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	87.	%	0.10	30	2540G		0330 17:00	LK
pH	7.5	SU	-	1	9045C		0326 21:00	LK
Flash Point	>150	deg F	70	1	1010		0401 15:00	MV
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		0401 12:15	JT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0401 12:15	JT
Total Metals				1	3051			
Arsenic, Total	6.3	mg/kg	0.45	54	6010B	0329 16:00	0331 15:21	RW
Barium, Total	58.	mg/kg	0.45	54	6010B	0329 16:00	0331 15:21	RW
Cadmium, Total	ND	mg/kg	0.45	54	6010B	0329 16:00	0331 15:21	RW
Chromium, Total	29.	mg/kg	0.45	54	6010B	0329 16:00	0331 15:21	RW
Lead, Total	11.	mg/kg	2.2	54	6010B	0329 16:00	0331 15:21	RW
Mercury, Total	ND	mg/kg	0.09	54	7471A	0329 16:30	0330 15:39	DM
Selenium, Total	ND	mg/kg	0.90	54	6010B	0329 16:00	0331 15:21	RW
Silver, Total	ND	mg/kg	0.45	54	6010B	0329 16:00	0331 15:21	RW
Volatile Organics by MCP 8260B/5035-High				54	8260B		0331 19:33	RY
Methylene chloride	ND	ug/kg	2000					
1,1-Dichloroethane	ND	ug/kg	300					
Chloroform	ND	ug/kg	300					
Carbon tetrachloride	ND	ug/kg	200					
1,2-Dichloropropane	ND	ug/kg	700					
Dibromochloromethane	ND	ug/kg	200					
1,1,2-Trichloroethane	ND	ug/kg	300					
Tetrachloroethene	ND	ug/kg	200					
Chlorobenzene	ND	ug/kg	200					
Trichlorofluoromethane	ND	ug/kg	1000					
1,2-Dichloroethane	ND	ug/kg	200					
1,1,1-Trichloroethane	ND	ug/kg	200					
Bromodichloromethane	ND	ug/kg	200					
trans-1,3-Dichloropropene	ND	ug/kg	200					
cis-1,3-Dichloropropene	ND	ug/kg	200					
1,1-Dichloropropene	ND	ug/kg	1000					
Bromoform	ND	ug/kg	800					

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

Laboratory Sample Number: L0402870-01
UST-STKPL6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0331 19:33	RY
1,1,2,2-Tetrachloroethane	ND	ug/kg	200				
Benzene	ND	ug/kg	200				
Toluene	ND	ug/kg	300				
Ethylbenzene	ND	ug/kg	200				
Chloromethane	ND	ug/kg	1000				
Bromomethane	ND	ug/kg	400				
Vinyl chloride	ND	ug/kg	400				
Chloroethane	ND	ug/kg	400				
1,1-Dichloroethene	ND	ug/kg	200				
trans-1,2-Dichloroethene	ND	ug/kg	300				
Trichloroethene	ND	ug/kg	200				
1,2-Dichlorobenzene	ND	ug/kg	1000				
1,3-Dichlorobenzene	ND	ug/kg	1000				
1,4-Dichlorobenzene	ND	ug/kg	1000				
Methyl tert butyl ether	ND	ug/kg	400				
p/m-Xylene	580	ug/kg	200				
o-Xylene	ND	ug/kg	200				
cis-1,2-Dichloroethene	ND	ug/kg	200				
Dibromomethane	ND	ug/kg	2000				
1,2,3-Trichloropropane	ND	ug/kg	2000				
Styrene	ND	ug/kg	200				
Dichlorodifluoromethane	ND	ug/kg	2000				
Acetone	ND	ug/kg	2000				
Carbon disulfide	ND	ug/kg	2000				
2-Butanone	ND	ug/kg	2000				
4-Methyl-2-pentanone	ND	ug/kg	2000				
2-Hexanone	ND	ug/kg	2000				
Bromochloromethane	ND	ug/kg	1000				
Tetrahydrofuran	ND	ug/kg	4000				
2,2-Dichloropropane	ND	ug/kg	1000				
1,2-Dibromoethane	ND	ug/kg	1000				
1,3-Dichloropropane	ND	ug/kg	1000				
1,1,1,2-Tetrachloroethane	ND	ug/kg	200				
Bromobenzene	ND	ug/kg	1000				
n-Butylbenzene	1800	ug/kg	200				
sec-Butylbenzene	660	ug/kg	200				
tert-Butylbenzene	ND	ug/kg	1000				
o-Chlorotoluene	ND	ug/kg	1000				
p-Chlorotoluene	ND	ug/kg	1000				
1,2-Dibromo-3-chloropropane	ND	ug/kg	1000				
Hexachlorobutadiene	ND	ug/kg	1000				
Isopropylbenzene	ND	ug/kg	200				
p-Isopropyltoluene	360	ug/kg	200				
Naphthalene	5400	ug/kg	1000				
n-Propylbenzene	450	ug/kg	200				
1,2,3-Trichlorobenzene	ND	ug/kg	1000				
1,2,4-Trichlorobenzene	ND	ug/kg	1000				
1,3,5-Trimethylbenzene	1600	ug/kg	1000				
1,2,4-Trimethylbenzene	4200	ug/kg	1000				

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

Laboratory Sample Number: L0402870-01
UST-STKPL6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0331 19:33	RY
Ethyl ether	ND	ug/kg	1000				
Isopropyl Ether	ND	ug/kg	800				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	800				
Tertiary-Amyl Methyl Ether	ND	ug/kg	800				
1,4-Dioxane	ND	ug/kg	100000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	92.0	%	70-130				
Toluene-d8	95.0	%	70-130				
4-Bromofluorobenzene	101.	%	70-130				
Dibromofluoromethane	91.0	%	70-130				
Semivolatile Organics by MCP 8270C				54 8270C	0330 17:00	0401 02:22	HL
Acenaphthene	ND	ug/kg	570				
1,2,4-Trichlorobenzene	ND	ug/kg	570				
Hexachlorobenzene	ND	ug/kg	570				
Bis(2-chloroethyl)ether	ND	ug/kg	570				
2-Chloronaphthalene	ND	ug/kg	570				
1,2-Dichlorobenzene	ND	ug/kg	570				
1,3-Dichlorobenzene	ND	ug/kg	570				
1,4-Dichlorobenzene	ND	ug/kg	570				
3,3'-Dichlorobenzidine	ND	ug/kg	1100				
2,4-Dinitrotoluene	ND	ug/kg	570				
2,6-Dinitrotoluene	ND	ug/kg	570				
Azobenzene	ND	ug/kg	570				
Fluoranthene	580	ug/kg	570				
4-Bromophenyl phenyl ether	ND	ug/kg	570				
Bis(2-chloroisopropyl)ether	ND	ug/kg	570				
Bis(2-chloroethoxy)methane	ND	ug/kg	570				
Hexachlorobutadiene	ND	ug/kg	1100				
Hexachloroethane	ND	ug/kg	570				
Isophorone	ND	ug/kg	570				
Naphthalene	620	ug/kg	570				
Nitrobenzene	ND	ug/kg	570				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	1100				
Butyl benzyl phthalate	ND	ug/kg	570				
Di-n-butylphthalate	ND	ug/kg	570				
Di-n-octylphthalate	ND	ug/kg	570				
Diethyl phthalate	ND	ug/kg	570				
Dimethyl phthalate	ND	ug/kg	570				
Benzo(a)anthracene	1000	ug/kg	570				
Benzo(a)pyrene	650	ug/kg	570				
Benzo(b)fluoranthene	ND	ug/kg	570				
Benzo(k)fluoranthene	ND	ug/kg	570				
Chrysene	1600	ug/kg	570				
Acenaphthylene	ND	ug/kg	570				
Anthracene	ND	ug/kg	570				
Benzo(ghi)perylene	ND	ug/kg	570				
Fluorene	1200	ug/kg	570				

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

Laboratory Sample Number: L0402870-01
UST-STKPL6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by MCP 8270C continued				54 8270C	0330 17:00	0401 02:22	HL
Phenanthrene	3500	ug/kg	570				
Dibenzo(a,h)anthracene	ND	ug/kg	570				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	570				
Pyrene	2200	ug/kg	570				
Aniline	ND	ug/kg	1100				
4-Chloroaniline	ND	ug/kg	570				
Dibenzofuran	ND	ug/kg	570				
2-Methylnaphthalene	5900	ug/kg	570				
Acetophenone	ND	ug/kg	2300				
2,4,6-Trichlorophenol	ND	ug/kg	570				
2-Chlorophenol	ND	ug/kg	570				
2,4-Dichlorophenol	ND	ug/kg	1100				
2,4-Dimethylphenol	ND	ug/kg	570				
2-Nitrophenol	ND	ug/kg	2300				
4-Nitrophenol	ND	ug/kg	1100				
2,4-Dinitrophenol	ND	ug/kg	2300				
Pentachlorophenol	ND	ug/kg	2300				
Phenol	ND	ug/kg	800				
2-Methylphenol	ND	ug/kg	690				
3-Methylphenol/4-Methylphenol	ND	ug/kg	690				
2,4,5-Trichlorophenol	ND	ug/kg	570				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	67.0	%	30-130				
Phenol-d6	70.0	%	30-130				
Nitrobenzene-d5	70.0	%	30-130				
2-Fluorobiphenyl	79.0	%	30-130				
2,4,6-Tribromophenol	69.0	%	30-130				
4-Terphenyl-d14	84.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				54 8082	0329 15:00	0330 19:24	AK
Aroclor 1221	ND	ug/kg	57.5				
Aroclor 1232	ND	ug/kg	57.5				
Aroclor 1242/1016	ND	ug/kg	57.5				
Aroclor 1248	ND	ug/kg	57.5				
Aroclor 1254	ND	ug/kg	57.5				
Aroclor 1260	ND	ug/kg	57.5				
Aroclor 1262	ND	ug/kg	57.5				
Aroclor 1268	ND	ug/kg	57.5				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	70.0	%	30-150				
Decachlorobiphenyl	71.0	%	30-150				
Polychlorinated Biphenyls by MCP 8082				54 8082	0329 15:00	0330 19:24	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	67.0	%	30-150				
Decachlorobiphenyl	61.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402870-01
UST-STKPL6-S1

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M				1	8100M	0330 16:20	0404 19:23	JB
Mineral Spirits	ND	mg/kg	570					
Gasoline	ND	mg/kg	570					
Fuel Oil #2/Diesel	ND	mg/kg	570					
Fuel Oil #4	ND	mg/kg	570					
Fuel Oil #6	ND	mg/kg	570					
Motor Oil	ND	mg/kg	570					
Kerosene	ND	mg/kg	570					
Transformer Oil	ND	mg/kg	570					
Unknown Hydrocarbon	1600	mg/kg	570					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	84.0	%	40-140					

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402870

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0402850-01, WG166518)					
Solids, Total	90.	90.	%	0	
pH for sample(s) 01 (L0402870-01, WG166317)					
pH	7.5	7.6	SU	1	
Cyanide, Reactive for sample(s) 01 (L0402916-12, WG166739)					
Cyanide, Reactive	ND	ND	mg/kg	NC	
Sulfide, Reactive for sample(s) 01 (L0402916-12, WG166738)					
Sulfide, Reactive	ND	ND	mg/kg	NC	
Hydrocarbon Scan by GC 8100M for sample(s) 01 (L0402813-01, WG166531)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	ND	ND	mg/kg	NC	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	75.0	71.0	%	5	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402870

Parameter	% Recovery	QC Criteria
pH LCS for sample(s) 01 (WG166317)		
pH	101	
Sulfide, Reactive LCS for sample(s) 01 (WG166738)		
Sulfide, Reactive	90	
Total Metals LCS for sample(s) 01 (WG166463)		
Arsenic, Total	101	75-125
Barium, Total	89	75-125
Cadmium, Total	89	75-125
Chromium, Total	89	75-125
Lead, Total	94	75-125
Selenium, Total	101	75-125
Silver, Total	81	75-125
Total Metals LCS for sample(s) 01 (WG166417)		
Mercury, Total	104	75-125
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01 (WG166700)		
Methylene chloride	100	70-130
1,1-Dichloroethane	104	70-130
Chloroform	96	70-130
Carbon tetrachloride	102	70-130
1,2-Dichloropropane	103	70-130
Dibromochloromethane	98	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	100	70-130
Chlorobenzene	102	70-130
Trichlorofluoromethane	95	70-130
1,2-Dichloroethane	99	70-130
1,1,1-Trichloroethane	102	70-130
Bromodichloromethane	101	70-130
trans-1,3-Dichloropropene	96	70-130
cis-1,3-Dichloropropene	97	70-130
1,1-Dichloropropene	100	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Benzene	101	70-130
Toluene	100	70-130
Ethylbenzene	104	70-130
Chloromethane	110	70-130
Bromomethane	106	70-130
Vinyl chloride	98	70-130
Chloroethane	93	70-130
1,1-Dichloroethene	96	70-130
trans-1,2-Dichloroethene	96	70-130
Trichloroethene	100	70-130
1,2-Dichlorobenzene	104	70-130
1,3-Dichlorobenzene	106	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402870

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 01 (WG166700)		
1,4-Dichlorobenzene	104	70-130
Methyl tert butyl ether	115	70-130
p/m-Xylene	107	70-130
o-Xylene	95	70-130
cis-1,2-Dichloroethene	103	70-130
Dibromomethane	101	70-130
1,2,3-Trichloropropane	99	70-130
Styrene	106	70-130
Dichlorodifluoromethane	121	70-130
Acetone	89	70-130
Carbon disulfide	97	70-130
2-Butanone	97	70-130
4-Methyl-2-pentanone	95	70-130
2-Hexanone	98	70-130
Bromochloromethane	102	70-130
Tetrahydrofuran	104	70-130
2,2-Dichloropropane	104	70-130
1,2-Dibromoethane	100	70-130
1,3-Dichloropropane	100	70-130
1,1,1,2-Tetrachloroethane	101	70-130
Bromobenzene	101	70-130
n-Butylbenzene	104	70-130
sec-Butylbenzene	112	70-130
tert-Butylbenzene	107	70-130
o-Chlorotoluene	108	70-130
p-Chlorotoluene	107	70-130
1,2-Dibromo-3-chloropropane	101	70-130
Hexachlorobutadiene	104	70-130
Isopropylbenzene	105	70-130
p-Isopropyltoluene	97	70-130
Naphthalene	96	70-130
n-Propylbenzene	109	70-130
1,2,3-Trichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	94	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	111	70-130
Ethyl ether	113	70-130
Isopropyl Ether	97	70-130
Ethyl-Tert-Butyl-Ether	92	70-130
Tertiary-Amyl Methyl Ether	94	70-130
1,4-Dioxane	100	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130
Dibromofluoromethane	99	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402870

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 01 (WG166530)		
Acenaphthene	82	40-140
1,2,4-Trichlorobenzene	70	40-140
Hexachlorobenzene	100	40-140
Bis(2-chloroethyl)ether	68	40-140
2-Chloronaphthalene	75	40-140
1,2-Dichlorobenzene	66	40-140
1,3-Dichlorobenzene	65	40-140
1,4-Dichlorobenzene	67	40-140
3,3'-Dichlorobenzidine	43	40-140
2,4-Dinitrotoluene	110	40-140
2,6-Dinitrotoluene	100	40-140
Azobenzene	88	40-140
Fluoranthene	98	40-140
4-Bromophenyl phenyl ether	98	40-140
Bis(2-chloroisopropyl)ether	61	40-140
Bis(2-chloroethoxy)methane	70	40-140
Hexachlorobutadiene	71	40-140
Hexachloroethane	68	40-140
Isophorone	71	40-140
Naphthalene	70	40-140
Nitrobenzene	67	40-140
Bis(2-Ethylhexyl)phthalate	99	40-140
Butyl benzyl phthalate	99	40-140
Di-n-butylphthalate	100	40-140
Di-n-octylphthalate	110	40-140
Diethyl phthalate	98	40-140
Dimethyl phthalate	95	40-140
Benzo(a)anthracene	100	40-140
Benzo(a)pyrene	96	40-140
Benzo(b)fluoranthene	110	40-140
Benzo(k)fluoranthene	92	40-140
Chrysene	98	40-140
Acenaphthylene	81	40-140
Anthracene	96	40-140
Benzo(ghi)perylene	90	40-140
Fluorene	89	40-140
Phenanthrene	96	40-140
Dibenzo(a,h)anthracene	100	40-140
Indeno(1,2,3-cd)Pyrene	97	40-140
Pyrene	100	40-140
Aniline	71	40-140
4-Chloroaniline	45	40-140
Dibenzofuran	87	40-140
2-Methylnaphthalene	71	40-140
Acetophenone	73	40-140
2,4,6-Trichlorophenol	86	30-130
2-Chlorophenol	68	30-130
2,4-Dichlorophenol	75	30-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402870

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 01 (WG166530)		
2,4-Dimethylphenol	65	30-130
2-Nitrophenol	76	30-130
4-Nitrophenol	71	30-130
2,4-Dinitrophenol	110	30-130
Pentachlorophenol	100	30-130
Phenol	69	30-130
2-Methylphenol	68	30-130
3-Methylphenol/4-Methylphenol	66	30-130
2,4,5-Trichlorophenol	89	30-130
Surrogate(s)		
2-Fluorophenol	62	30-130
Phenol-d6	65	30-130
Nitrobenzene-d5	64	30-130
2-Fluorobiphenyl	71	30-130
2,4,6-Tribromophenol	81	30-130
4-Terphenyl-d14	94	30-130
Polychlorinated Biphenyls by MCP 8082 LCS for sample(s) 01 (WG166454)		
Aroclor 1242/1016	81	40-140
Aroclor 1260	81	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	65	30-150
2,4,5,6-Tetrachloro-m-xylene	64	30-150
Decachlorobiphenyl	62	30-150
Decachlorobiphenyl	64	30-150
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01 (WG166531)		
Petroleum Spike	74	40-140
Surrogate(s)		
o-Terphenyl	115	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402870

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166739-1)								
Cyanide, Reactive	ND	mg/kg	0.25	1	7.3		0401 12:15	JT
Blank Analysis for sample(s) 01 (WG166738-1)								
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0401 12:15	JT
Blank Analysis for sample(s) 01 (WG166463-1)								
Total Metals				1	3051			
Arsenic, Total	ND	mg/kg	0.40	54	6010B	0329 16:00	0331 14:05	RW
Barium, Total	ND	mg/kg	0.40	54	6010B	0329 16:00	0331 14:05	RW
Cadmium, Total	ND	mg/kg	0.40	54	6010B	0329 16:00	0331 14:05	RW
Chromium, Total	ND	mg/kg	0.40	54	6010B	0329 16:00	0331 14:05	RW
Lead, Total	ND	mg/kg	2.0	54	6010B	0329 16:00	0331 14:05	RW
Selenium, Total	ND	mg/kg	0.80	54	6010B	0329 16:00	0331 14:05	RW
Silver, Total	ND	mg/kg	0.40	54	6010B	0329 16:00	0331 14:05	RW
Blank Analysis for sample(s) 01 (WG166417-2)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	54	7471A	0329 16:30	0330 15:33	DM
Blank Analysis for sample(s) 01 (WG166700-2)								
Volatile Organics by MCP 8260B/5035-High				54	8260B		0331 18:22	RY
Methylene chloride	ND	ug/kg	500					
1,1-Dichloroethane	ND	ug/kg	75.					
Chloroform	ND	ug/kg	75.					
Carbon tetrachloride	ND	ug/kg	50.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	50.					
1,1,2-Trichloroethane	ND	ug/kg	75.					
Tetrachloroethene	ND	ug/kg	50.					
Chlorobenzene	ND	ug/kg	50.					
Trichlorofluoromethane	ND	ug/kg	250					
1,2-Dichloroethane	ND	ug/kg	50.					
1,1,1-Trichloroethane	ND	ug/kg	50.					
Bromodichloromethane	ND	ug/kg	50.					
trans-1,3-Dichloropropene	ND	ug/kg	50.					
cis-1,3-Dichloropropene	ND	ug/kg	50.					
1,1-Dichloropropene	ND	ug/kg	250					
Bromoform	ND	ug/kg	200					
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.					
Benzene	ND	ug/kg	50.					
Toluene	ND	ug/kg	75.					
Ethylbenzene	ND	ug/kg	50.					
Chloromethane	ND	ug/kg	250					
Bromomethane	ND	ug/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402870

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166700-2)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0331 18:22	RY
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	250				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402870

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166700-2)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0331 18:22	RY
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	98.0	%	70-130				
Toluene-d8	97.0	%	70-130				
4-Bromofluorobenzene	110.	%	70-130				
Dibromofluoromethane	89.0	%	70-130				
Blank Analysis for sample(s) 01 (WG166530-1)							
Semivolatile Organics by MCP 8270C				54 8270C	0330 17:00	0401 01:36	HL
Acenaphthene	ND	ug/kg	500				
1,2,4-Trichlorobenzene	ND	ug/kg	500				
Hexachlorobenzene	ND	ug/kg	500				
Bis(2-chloroethyl)ether	ND	ug/kg	500				
2-Chloronaphthalene	ND	ug/kg	500				
1,2-Dichlorobenzene	ND	ug/kg	500				
1,3-Dichlorobenzene	ND	ug/kg	500				
1,4-Dichlorobenzene	ND	ug/kg	500				
3,3'-Dichlorobenzidine	ND	ug/kg	1000				
2,4-Dinitrotoluene	ND	ug/kg	500				
2,6-Dinitrotoluene	ND	ug/kg	500				
Azobenzene	ND	ug/kg	500				
Fluoranthene	ND	ug/kg	500				
4-Bromophenyl phenyl ether	ND	ug/kg	500				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	500				
Hexachlorobutadiene	ND	ug/kg	1000				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	500				
Naphthalene	ND	ug/kg	500				
Nitrobenzene	ND	ug/kg	500				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	1000				
Butyl benzyl phthalate	ND	ug/kg	500				
Di-n-butylphthalate	ND	ug/kg	500				
Di-n-octylphthalate	ND	ug/kg	500				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	500				
Benzo(a)pyrene	ND	ug/kg	500				
Benzo(b)fluoranthene	ND	ug/kg	500				
Benzo(k)fluoranthene	ND	ug/kg	500				
Chrysene	ND	ug/kg	500				
Acenaphthylene	ND	ug/kg	500				
Anthracene	ND	ug/kg	500				
Benzo(ghi)perylene	ND	ug/kg	500				
Fluorene	ND	ug/kg	500				
Phenanthrene	ND	ug/kg	500				

Laboratory Job Number: L0402870

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166530-1)							
Semivolatile Organics by MCP 8270C continued				54 8270C	0330 17:00	0401 01:36	HL
Dibenzo(a,h)anthracene	ND	ug/kg	500				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	500				
Pyrene	ND	ug/kg	500				
Aniline	ND	ug/kg	1000				
4-Chloroaniline	ND	ug/kg	500				
Dibenzofuran	ND	ug/kg	500				
2-Methylnaphthalene	ND	ug/kg	500				
Acetophenone	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	500				
2-Chlorophenol	ND	ug/kg	500				
2,4-Dichlorophenol	ND	ug/kg	1000				
2,4-Dimethylphenol	ND	ug/kg	500				
2-Nitrophenol	ND	ug/kg	2000				
4-Nitrophenol	ND	ug/kg	1000				
2,4-Dinitrophenol	ND	ug/kg	2000				
Pentachlorophenol	ND	ug/kg	2000				
Phenol	ND	ug/kg	700				
2-Methylphenol	ND	ug/kg	600				
3-Methylphenol/4-Methylphenol	ND	ug/kg	600				
2,4,5-Trichlorophenol	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	49.0	%	30-130				
Phenol-d6	49.0	%	30-130				
Nitrobenzene-d5	50.0	%	30-130				
2-Fluorobiphenyl	49.0	%	30-130				
2,4,6-Tribromophenol	66.0	%	30-130				
4-Terphenyl-d14	85.0	%	30-130				
Blank Analysis for sample(s) 01 (WG166454-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0329 15:00	0330 09:22	AK
Aroclor 1221	ND	ug/kg	50.0				
Aroclor 1232	ND	ug/kg	50.0				
Aroclor 1242/1016	ND	ug/kg	50.0				
Aroclor 1248	ND	ug/kg	50.0				
Aroclor 1254	ND	ug/kg	50.0				
Aroclor 1260	ND	ug/kg	50.0				
Aroclor 1262	ND	ug/kg	50.0				
Aroclor 1268	ND	ug/kg	50.0				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	64.0	%	30-150				
Decachlorobiphenyl	62.0	%	30-150				
Blank Analysis for sample(s) 01 (WG166454-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0329 15:00	0330 09:22	AK

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402870

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166454-1)							
Polychlorinated Biphenyls by MCP 8082 continued				54 8082	0329 15:00	0330 09:22	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	60.0	%	30-150				
Decachlorobiphenyl	61.0	%	30-150				
Blank Analysis for sample(s) 01 (WG166531-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0330 16:20	0403 06:53	JB
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	79.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402870

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
L0402870-01A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	MCP-8260H
L0402870-01B	Vial NaHSO4 preserved	A	N/A	2.2 C	Y	Absent	MCP-8260H
L0402870-01C	Vial NaHSO4 preserved	A	N/A	2.2 C	Y	Absent	MCP-8260H
L0402870-01D	Vial NaHSO4 preserved	A	N/A	2.2 C	Y	Absent	MCP-8260H
L0402870-01E	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	FLASH, MCP-8082, MCP-8270, PH-9045, REACTCN, REACTS, TPH-8100, TS
L0402870-01F	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	AG-TI, AS-TI, BA-TI, CD-TI, CR-TI, HG-T, PB-TI, PREPT, SE-TI

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME Burbank School
H&A CONTACT Steve Provenzol

LABORATORY Alpha
ADDRESS
CONTACT

DELIVERY DATE 3/26/04
TURNAROUND TIME Standard
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity	(1)	(2)		Number of Containers
UST-STKPL6-S1	3/26/04	1030	—	SOIL	X			X			X		X	X	X		6

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) SVOC
(2) RCRA 8 Metals

Sampled and Relinquished by
Sign Todd Butler
Print Todd Butler
Firm H&A
Date 3/26/04 Time 1538

Received by
Sign [signature]
Print Ian Baker
Firm Alpha
Date 3/26/04 Time 1538

Relinquished by
Sign [signature]
Print Ian Baker
Firm Alpha
Date 3/26/04 Time 1640

Received by
Sign [signature]
Print
Firm
Date 3/26 Time 1640

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

LIQUID

	VOA	ABNs	MCP Metals	Pesticides PCBs	VPH	EPH	TPH	TCLP	R/I/C	(1)	(2)		
VOA Vial	X												
Amber Glass				X			X		X	X	X		
Plastic Bottle													
Preservative													
Volume													

SOLID

	VOA	ABNs	MCP Metals	Pesticides PCBs	VPH	EPH	TPH	TCLP	R/I/C	(1)	(2)		
VOA Vial	X												
Amber Glass				X			X		X	X	X		
Clear Glass													
Preservative	H2G			A			A		A	A	A		
Volume	40ml			8oz			8oz		8oz	8oz	8oz		

Sampling Comments
Please Fax Data
To Mike Crowley
@ 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled C NaOH E H_2SO_4 G Methanol
B Sample filtered D HNO_3 F HCL H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) ______includes ✓ does not include samples defined as Drinking Water Samples.
NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable)______analyze ______hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives
☑ RC-S1 ☑ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☑ GW2
☐ RC-GW1 ☐ S3 ☐ GW3
☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0402952
Date Received: 29-MAR-2004
Date Reported: 06-APR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0402952
Date Reported: 06-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0402952-01	12IN-CLAY-BOT-S1	BELMONT, MA
L0402952-02	12IN-CLAY-ESW-S1	BELMONT, MA
L0402952-03	ESW2-S4	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0402952

Extraction Methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

In reference to question E, the Surrogate % Recovery for 1-chloro-octadecane on -01 (23%) is below acceptable limits. The re-extract was performed within hold time and confirmed the original results with 1-chloro-octadecane (25%) below acceptable limits. Both sets of data have been reported.

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: L0402952-01
12IN-CLAY-BOT-S1
Sample Matrix: SOIL

Date Collected: 29-MAR-2004 07:45
Date Received : 29-MAR-2004
Date Reported : 06-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0329 22:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402952-01
12IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0330 23:04	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.14
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.14
C9-C10 Aromatics	ND	mg/kg	3.14
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.14
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.14
Benzene	ND	mg/kg	0.157
Toluene	ND	mg/kg	0.157
Ethylbenzene	ND	mg/kg	0.157
p/m-Xylene	ND	mg/kg	0.157
o-Xylene	ND	mg/kg	0.157
Methyl tert butyl ether	ND	mg/kg	0.314
Naphthalene	ND	mg/kg	1.57

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	81.0	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

Laboratory Sample Number: L0402952-01
12IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0402 15:45	0403 19:49	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	23.0	%	40-140
o-Terphenyl	40.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402952-01
12IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0405 10:00	0406 11:00	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	25.0	%	40-140
o-Terphenyl	47.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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: L0402952-02
12IN-CLAY-ESW-S1
Sample Matrix: SOIL

Date Collected: 29-MAR-2004 07:50
Date Received : 29-MAR-2004
Date Reported : 06-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0329 22:15	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0402952-02
12IN-CLAY-ESW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0330 23:54	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.52
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.52
C9-C10 Aromatics	ND	mg/kg	2.52
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.52
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.52
Benzene	ND	mg/kg	0.126
Toluene	ND	mg/kg	0.126
Ethylbenzene	ND	mg/kg	0.126
p/m-Xylene	ND	mg/kg	0.126
o-Xylene	ND	mg/kg	0.126
Methyl tert butyl ether	ND	mg/kg	0.252
Naphthalene	ND	mg/kg	1.26

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	78.0	%	70-130
2,5-Dibromotoluene-FID	96.0	%	70-130

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

Laboratory Sample Number: L0402952-02
12IN-CLAY-ESW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0402 15:45	0403 20:38	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	49.0	%	40-140
o-Terphenyl	82.0	%	40-140
2-Fluorobiphenyl	80.0	%	40-140
2-Bromonaphthalene	71.0	%	40-140

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: L0402952-03
ESW2-S4
Sample Matrix: SOIL

Date Collected: 29-MAR-2004 12:40
Date Received : 29-MAR-2004
Date Reported : 06-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0329 22:15	LK

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

Laboratory Sample Number: L0402952-03
ESW2-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0331 00:45	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.97
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.97
C9-C10 Aromatics	ND	mg/kg	1.97
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.97
C9-C12 Aliphatics, Adjusted	ND	mg/kg	1.97
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.197
Naphthalene	ND	mg/kg	0.985

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	73.0	%	70-130
2,5-Dibromotoluene-FID	96.0	%	70-130

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

Laboratory Sample Number: L0402952-03
ESW2-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0402 15:45	0403 21:27	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.6
C19-C36 Aliphatics	ND	mg/kg	10.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.6
Naphthalene	ND	mg/kg	0.532
2-Methylnaphthalene	ND	mg/kg	0.532
Acenaphthylene	ND	mg/kg	0.532
Acenaphthene	ND	mg/kg	0.532
Fluorene	ND	mg/kg	0.532
Phenanthrene	ND	mg/kg	0.532
Anthracene	ND	mg/kg	0.532
Fluoranthene	ND	mg/kg	0.532
Pyrene	ND	mg/kg	0.532
Benzo(a)anthracene	ND	mg/kg	0.532
Chrysene	ND	mg/kg	0.532
Benzo(b)fluoranthene	ND	mg/kg	0.532
Benzo(k)fluoranthene	ND	mg/kg	0.532
Benzo(a)pyrene	ND	mg/kg	0.532
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.532
Dibenzo(a,h)anthracene	ND	mg/kg	0.532
Benzo(g,h,i)perylene	ND	mg/kg	0.532

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	81.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0402952

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-03 (L0402970-01, WG166445)					
Solids, Total	88.	89.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-03 (L0402832-01, WG166384)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	92.0	90.0	%	2	70-130
2,5-Dibromotoluene-FID	104.	99.0	%	5	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-03 (L0403139-01, WG166831)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	16.7	12.8	mg/kg	26	50
C11-C22 Aromatics	17.9	15.9	mg/kg	12	50
C11-C22 Aromatics, Adjusted	17.9	15.9	mg/kg	12	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	52.0	42.0	%	21	40-140
o-Terphenyl	77.0	72.0	%	7	40-140
2-Fluorobiphenyl	79.0	74.0	%	7	40-140
2-Bromonaphthalene	74.0	69.0	%	7	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0402952

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG166384)		
Benzene	96	70-130
Toluene	90	70-130
Ethylbenzene	106	70-130
p/m-Xylene	95	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	82	70-130
Naphthalene	87	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	96	70-130
2,5-Dibromotoluene-FID	98	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03 (WG166831)		
Naphthalene	56	40-140
Acenaphthene	72	40-140
Anthracene	81	40-140
Pyrene	87	40-140
Chrysene	87	40-140
Nonane (C9)	61	40-140
Tetradecane (C14)	80	40-140
Nonadecane (C19)	88	40-140
Eicosane (C20)	89	40-140
Octacosane (C28)	88	40-140
Surrogate(s)		
Chloro-Octadecane	51	40-140
o-Terphenyl	86	40-140
2-Fluorobiphenyl	75	40-140
2-Bromonaphthalene	58	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0402952

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG166384-5)							
Volatile Petroleum Hydrocarbons				47 98-1		0330 08:16	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	86.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01-03 (WG166831-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0402 10:05	0404 12:20	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	46.0	%	40-140				
o-Terphenyl	85.0	%	40-140				
2-Fluorobiphenyl	74.0	%	40-140				
2-Bromonaphthalene	59.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0402952

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
L0402952-01A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0402952-01B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0402952-02A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0402952-02B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0402952-03A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0402952-03B	Amber 100ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments
L0402952-01B	This container has not been properly returned to CUSTODY! It was last assigned to LKUBIT for department WET CHEMISTRY on 03/29/04 20:51 .
L0402952-02B	This container has not been properly returned to CUSTODY! It was last assigned to LKUBIT for department WET CHEMISTRY on 03/29/04 20:51 .
L0402952-03B	This container has not been properly returned to CUSTODY! It was last assigned to LKUBIT for department WET CHEMISTRY on 03/29/04 20:51 .

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME Burbank School
H&A CONTACT Steve Provencal

LABORATORY Kona
ADDRESS
CONTACT

DELIVERY DATE 3/29/04
TURNAROUND TIME Standard
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
12IN-CLAY-BOT-S1	3/29/04	0745	7	SOIL					X	X							2
12IN-CLAY-ESW-S1	"	0750	4-6						X	X							2
ESW2-S4	"	1240	6-12						X	X							2

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.
(1)(2) EOH/VPH AND TARGET ANALYTES

Sampled and Relinquished by	Received by
Sign Todd R Burke	Sign Desmond Crawford
Print Todd Burke	Print Desmond Crawford
Firm H&A	Firm H+A
Date 3/29/04 Time 1446	Date 03/29/04 Time 14:46
Relinquished by	**Received by**
Sign Desmond Crawford	Sign
Print Desmond Crawford	Print
Firm H+A	Firm
Date 03/29/04 Time 17:05	Date 3/29/04 Time 1705
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 3/29 Time 1910	Date 3/29 Time 1910

	LIQUID	SOLID
VOA Vial		X
Amber Glass		X
Plastic Bottle		
Preservative		G A
Volume		
Clear Glass		

Sampling Comments
PLEASE FAX RESULTS TO MIKE CROWLEY 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- MA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ___ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
- N/A If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☐ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 2003 AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0403037
Date Received: 30-MAR-2004
Date Reported: 07-APR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

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

Laboratory Job Number: L0403037
Date Reported: 07-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403037-01	8 IN-CLAY-NSW-S1	BELMONT, MA
L0403037-02	6 IN-PVC-NSW-S1	BELMONT, MA
L0403037-03	8 IN-CLAY-BOT-S1	BELMONT, MA
L0403037-04	6 IN-PVC-SSW-S1	BELMONT, MA
L0403037-05	WSW2-S3	BELMONT, MA
L0403037-06	8 IN-CLAY-SSW-S2	BELMONT, MA
L0403037-07	6 IN-PVC-BOT-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403037

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by Method 98-1.

EPH

One or more surrogate percent recoveries for -03 are below the acceptance criteria for the method apparently due to sample matrix (1-chloro-octadecane=29%). Re-extraction was performed within hold time and confirmed the original results with one or more surrogate percent recoveries below the acceptance criteria for the method (1-chloro-octadecane=38%). Both sets of data have been reported.

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: L0403037-01
8 IN-CLAY-NSW-S1
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 13:52
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-01
8 IN-CLAY-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0401 21:54	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.19
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.19
C9-C10 Aromatics	ND	mg/kg	2.19
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.19
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.19
Benzene	ND	mg/kg	0.110
Toluene	ND	mg/kg	0.110
Ethylbenzene	ND	mg/kg	0.110
p/m-Xylene	ND	mg/kg	0.110
o-Xylene	ND	mg/kg	0.110
Methyl tert butyl ether	ND	mg/kg	0.219
Naphthalene	ND	mg/kg	1.10

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	91.0	%	70-130
2,5-Dibromotoluene-FID	95.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-01
8 IN-CLAY-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0405 18:41	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.0
C19-C36 Aliphatics	ND	mg/kg	12.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.0
Naphthalene	ND	mg/kg	0.602
2-Methylnaphthalene	ND	mg/kg	0.602
Acenaphthylene	ND	mg/kg	0.602
Acenaphthene	ND	mg/kg	0.602
Fluorene	ND	mg/kg	0.602
Phenanthrene	ND	mg/kg	0.602
Anthracene	ND	mg/kg	0.602
Fluoranthene	ND	mg/kg	0.602
Pyrene	ND	mg/kg	0.602
Benzo(a)anthracene	ND	mg/kg	0.602
Chrysene	ND	mg/kg	0.602
Benzo(b)fluoranthene	ND	mg/kg	0.602
Benzo(k)fluoranthene	ND	mg/kg	0.602
Benzo(a)pyrene	ND	mg/kg	0.602
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.602
Dibenzo(a,h)anthracene	ND	mg/kg	0.602
Benzo(g,h,i)perylene	ND	mg/kg	0.602

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	45.0	%	40-140
o-Terphenyl	61.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0403037-02
6 IN-PVC-NSW-S1
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 10:55
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-02
6 IN-PVC-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0401 22:45	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.52
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.52
C9-C10 Aromatics	ND	mg/kg	2.52
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.52
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.52
Benzene	ND	mg/kg	0.126
Toluene	ND	mg/kg	0.126
Ethylbenzene	ND	mg/kg	0.126
p/m-Xylene	ND	mg/kg	0.126
o-Xylene	ND	mg/kg	0.126
Methyl tert butyl ether	ND	mg/kg	0.252
Naphthalene	ND	mg/kg	1.26

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	84.0	%	70-130
2,5-Dibromotoluene-FID	85.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-02
6 IN-PVC-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0405 19:24	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	42.0	%	40-140
o-Terphenyl	59.0	%	40-140
2-Fluorobiphenyl	82.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

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: L0403037-03
8 IN-CLAY-BOT-S1
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 13:48
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-03
8 IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0401 23:37 MM.	

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.86
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.86
C9-C10 Aromatics	ND	mg/kg	2.86
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.86
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.86
Benzene	ND	mg/kg	0.143
Toluene	ND	mg/kg	0.143
Ethylbenzene	ND	mg/kg	0.143
p/m-Xylene	ND	mg/kg	0.143
o-Xylene	ND	mg/kg	0.143
Methyl tert butyl ether	ND	mg/kg	0.286
Naphthalene	ND	mg/kg	1.43

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	96.0	%	70-130
2,5-Dibromotoluene-FID	98.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-03
8 IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0402 23:28	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	29.0	%	40-140
o-Terphenyl	62.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-03
8 IN-CLAY-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0405 15:00	0406 14:18	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	38.0	%	40-140
o-Terphenyl	64.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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: L0403037-04
6 IN-PVC-SSW-S1
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 10:58
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-04
6 IN-PVC-SSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 00:28	MM

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C10 Aromatics	ND	mg/kg	2.29
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.29
Benzene	ND	mg/kg	0.114
Toluene	ND	mg/kg	0.114
Ethylbenzene	ND	mg/kg	0.114
p/m-Xylene	ND	mg/kg	0.114
o-Xylene	ND	mg/kg	0.114
Methyl tert butyl ether	ND	mg/kg	0.229
Naphthalene	ND	mg/kg	1.14

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	70.0	%	70-130
2,5-Dibromotoluene-FID	73.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-04
6 IN-PVC-SSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0405 15:00	0406 15:07	LL

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Sample extraction method:	Extracted Per the Method

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	44.0	%	40-140
o-Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	74.0	%	40-140

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: L0403037-05
WSW2-S3
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 10:45
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-05
WSW2-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 01:20	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.46
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.46
C9-C10 Aromatics	ND	mg/kg	2.46
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.46
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.46
Benzene	ND	mg/kg	0.123
Toluene	ND	mg/kg	0.123
Ethylbenzene	ND	mg/kg	0.123
p/m-Xylene	ND	mg/kg	0.123
o-Xylene	ND	mg/kg	0.123
Methyl tert butyl ether	ND	mg/kg	0.246
Naphthalene	ND	mg/kg	1.23

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	85.0	%	70-130
2,5-Dibromotoluene-FID	88.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-05
WSW2-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0405 15:00	0406 15:56	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.0
C19-C36 Aliphatics	ND	mg/kg	12.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.0
Naphthalene	ND	mg/kg	0.602
2-Methylnaphthalene	ND	mg/kg	0.602
Acenaphthylene	ND	mg/kg	0.602
Acenaphthene	ND	mg/kg	0.602
Fluorene	ND	mg/kg	0.602
Phenanthrene	ND	mg/kg	0.602
Anthracene	ND	mg/kg	0.602
Fluoranthene	ND	mg/kg	0.602
Pyrene	ND	mg/kg	0.602
Benzo(a)anthracene	ND	mg/kg	0.602
Chrysene	ND	mg/kg	0.602
Benzo(b)fluoranthene	ND	mg/kg	0.602
Benzo(k)fluoranthene	ND	mg/kg	0.602
Benzo(a)pyrene	ND	mg/kg	0.602
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.602
Dibenzo(a,h)anthracene	ND	mg/kg	0.602
Benzo(g,h,i)perylene	ND	mg/kg	0.602

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	40.0	%	40-140
o-Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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: L0403037-06
8 IN-CLAY-SSW-S2
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 14:28
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	94.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-06
8 IN-CLAY-SSW-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 02:11	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.79
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.79
C9-C10 Aromatics	ND	mg/kg	1.79
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.79
C9-C12 Aliphatics, Adjusted	ND	mg/kg	1.79
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.179
Naphthalene	ND	mg/kg	0.896

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	83.0	%	70-130
2,5-Dibromotoluene-FID	85.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-06
8 IN-CLAY-SSW-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0403 01:55	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.6
C19-C36 Aliphatics	ND	mg/kg	10.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.6
Naphthalene	ND	mg/kg	0.532
2-Methylnaphthalene	ND	mg/kg	0.532
Acenaphthylene	ND	mg/kg	0.532
Acenaphthene	ND	mg/kg	0.532
Fluorene	ND	mg/kg	0.532
Phenanthrene	ND	mg/kg	0.532
Anthracene	ND	mg/kg	0.532
Fluoranthene	ND	mg/kg	0.532
Pyrene	ND	mg/kg	0.532
Benzo(a)anthracene	ND	mg/kg	0.532
Chrysene	ND	mg/kg	0.532
Benzo(b)fluoranthene	ND	mg/kg	0.532
Benzo(k)fluoranthene	ND	mg/kg	0.532
Benzo(a)pyrene	ND	mg/kg	0.532
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.532
Dibenzo(a,h)anthracene	ND	mg/kg	0.532
Benzo(g,h,i)perylene	ND	mg/kg	0.532

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	40.0	%	40-140
o-Terphenyl	79.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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: L0403037-07
6 IN-PVC-BOT-S1
Sample Matrix: SOIL

Date Collected: 30-MAR-2004 10:52
Date Received : 30-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0331 17:40	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-07
6 IN-PVC-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0401 12:25	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.48
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.48
C9-C10 Aromatics	ND	mg/kg	2.48
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.48
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.48
Benzene	ND	mg/kg	0.124
Toluene	ND	mg/kg	0.124
Ethylbenzene	ND	mg/kg	0.124
p/m-Xylene	ND	mg/kg	0.124
o-Xylene	ND	mg/kg	0.124
Methyl tert butyl ether	ND	mg/kg	0.248
Naphthalene	ND	mg/kg	1.24

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	94.0	%	70-130
2,5-Dibromotoluene-FID	96.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403037-07
6 IN-PVC-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0403 02:44	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	43.0	%	40-140
o-Terphenyl	70.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	80.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403037

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-07 (L0403005-01, WG166653)					
Solids, Total	84.	83.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-07 (L0403037-01, WG166807)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	91.0	97.0	%	6	70-130
2,5-Dibromotoluene-FID	95.0	98.0	%	3	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-03,06-07 (L0403009-02, WG166672)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	47.0	36.0	%	27	40-140
o-Terphenyl	65.0	62.0	%	5	40-140
2-Fluorobiphenyl	78.0	80.0	%	3	40-140
2-Bromonaphthalene	72.0	78.0	%	8	40-140
Extractable Petroleum Hydrocarbons for sample(s) 04-05 (L0403161-01, WG166912)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	42.0	24.0	%	55	40-140
o-Terphenyl	62.0	38.0	%	48	40-140
2-Fluorobiphenyl	72.0	67.0	%	7	40-140
2-Bromonaphthalene	74.0	64.0	%	14	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403037

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-07 (WG166807)		
Benzene	98	70-130
Toluene	92	70-130
Ethylbenzene	91	70-130
p/m-Xylene	88	70-130
o-Xylene	93	70-130
Methyl tert butyl ether	96	70-130
Naphthalene	99	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	95	70-130
2,5-Dibromotoluene-FID	97	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-03,06-07 (WG166672)		
Naphthalene	55	40-140
Acenaphthene	60	40-140
Anthracene	76	40-140
Pyrene	82	40-140
Chrysene	86	40-140
Nonane (C9)	58	40-140
Tetradecane (C14)	67	40-140
Nonadecane (C19)	86	40-140
Eicosane (C20)	85	40-140
Octacosane (C28)	83	40-140
Surrogate(s)		
Chloro-Octadecane	55	40-140
o-Terphenyl	83	40-140
2-Fluorobiphenyl	78	40-140
2-Bromonaphthalene	76	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 04-05 (WG166912)		
Naphthalene	49	40-140
Acenaphthene	53	40-140
Anthracene	67	40-140
Pyrene	73	40-140
Chrysene	77	40-140
Nonane (C9)	48	40-140
Tetradecane (C14)	55	40-140
Nonadecane (C19)	71	40-140
Eicosane (C20)	71	40-140
Octacosane (C28)	70	40-140
Surrogate(s)		
Chloro-Octadecane	40	40-140
o-Terphenyl	73	40-140
2-Fluorobiphenyl	73	40-140
2-Bromonaphthalene	75	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403037

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-07 (WG166807-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0401 08:59	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	96.0	%	70-130				
2,5-Dibromotoluene-FID	101.	%	70-130				
Blank Analysis for sample(s) 01-03,06-07 (WG166672-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0331 18:00	0402 23:58	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	48.0	%	40-140				
o-Terphenyl	71.0	%	40-140				
2-Fluorobiphenyl	75.0	%	40-140				
2-Bromonaphthalene	75.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403037

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 04-05 (WG166912-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0405 10:00	0406 15:34	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	64.0	%	40-140				
o-Terphenyl	69.0	%	40-140				
2-Fluorobiphenyl	71.0	%	40-140				
2-Bromonaphthalene	69.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403037

Were project specific reporting limits specified? NO

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0403037-01A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-01B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-02A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-02B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-03A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-03B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-04A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-04B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-05A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-05B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-06A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-06B	Amber 100ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS
L0403037-07A	Vial MeOH preserved	A	N/A	0.8C	Y	Absent	VPH-DELUX
L0403037-07B	Amber 250ml unpreserved	A	N/A	0.8C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO.	30660-000	LABORATORY	ALPHA
PROJECT NAME	BURBANK SCHOOL	ADDRESS	
H&A CONTACT	STEVE PROVENCHER	CONTACT	

DELIVERY DATE 3/30/04
TURNAROUND TIME STANDARD
PROJECT MANAGER JOEL MONNEY

Sample No.	Date	Time	Depth (ft)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH 1 Full Suite C-ranges only	EPH 2 Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
8IN-CLAY-NSW-S1	3/30/04	1352	6-8	SOIL					X	X							2
6IN-PVC-NSW-S1	"	1055	6-8	"					X	X							2
8IN-CLAY-BOT-S1	"	1348	8	"					X	X							2
6IN-PVC-SSW-S1	"	1058	6-8	"					X	X							2
WSW2-S3	"	1045	6-12	"					X	X							2
8IN-CLAY-SSW-S2	"	1428	6-8	"					X	X							2
6IN-PVC-BOT-S1	"	1052	8	"					X	X							2

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

1&2 EPH/VPH AWD TARGET ANALYTES

Sampled and Relinquished by	Received by
Sign Todd R Butler	Sign
Print Todd Burler	Print
Firm H&A	Firm
Date 3/30/03 Time 1534	Date 3/30/04 Time 1650
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 3-30-04 Time 1915	Date 3-30-04 Time 1915
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID												
VOA Vial												
Amber Glass												
Plastic Bottle												
Preservative												
Volume												

SOLID												
VOA Vial					X							
Amber Glass						X						
Clear Glass												
Preservative					1:1 HCl	A						
Volume					40mL	8oz.						

Sampling Comments

PLEASE FAX RESULTS TO MIKE CROCKETT 617.886.7777

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- MA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ____ This Chain of Custody Record (specify) _____ includes ✓ does not include samples defined as Drinking Water Samples.
- MA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1 ☐ S1 ☐ GW1
- ☐ RC-S2 ☐ S2 ☐ GW2
- ☐ RC-GW1 ☐ S3 ☐ GW3
- ☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0403080
Date Received: 31-MAR-2004
Date Reported: 07-APR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	YES

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

Laboratory Job Number: L0403080
Date Reported: 07-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403080-01	8IN-CLAY-BOTTOM	BELMONT, MA
L0403080-02	8IN-CLAY-SOUTH	BELMONT, MA
L0403080-03	AB-CB-NSW-S1	BELMONT, MA
L0403080-04	AB-CB-SSW-S1	BELMONT, MA
L0403080-05	AB-CB-BOT-S1	BELMONT, MA
L0403080-06	TRIP BLANK	BELMONT, MA

Laboratory Job Number: L0403080

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

EPH

In reference to question E, the surrogate % recovery for Chloro-Octadecane (32%) on L0403080-03 is below the acceptance criteria for the method, apparently due to sample matrix. Re-analysis confirmed the original results with the surrogate % recovery for Chloro-Octadecane at 39%, which is still below criteria. Both sets of results are reported.

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: L0403080-01
8IN-CLAY-BOTTOM
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 08:45
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0331 20:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-01
8IN-CLAY-BOTTOM

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 02:14	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.78
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.78
C9-C10 Aromatics	ND	mg/kg	2.78
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.78
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.78
Benzene	ND	mg/kg	0.139
Toluene	ND	mg/kg	0.139
Ethylbenzene	ND	mg/kg	0.139
p/m-Xylene	ND	mg/kg	0.139
o-Xylene	ND	mg/kg	0.139
Methyl tert butyl ether	ND	mg/kg	0.278
Naphthalene	ND	mg/kg	1.39

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	107.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-01
8IN-CLAY-BOTTOM

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0402 13:41	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	61.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	79.0	%	40-140

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: L0403080-02
8IN-CLAY-SOUTH
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 08:45
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0331 20:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-02
8IN-CLAY-SOUTH

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 15:25	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.69
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.69
C9-C10 Aromatics	ND	mg/kg	2.69
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.69
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.69
Benzene	ND	mg/kg	0.134
Toluene	ND	mg/kg	0.134
Ethylbenzene	ND	mg/kg	0.134
p/m-Xylene	ND	mg/kg	0.134
o-Xylene	ND	mg/kg	0.134
Methyl tert butyl ether	ND	mg/kg	0.269
Naphthalene	ND	mg/kg	1.34

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	111.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-02
8IN-CLAY-SOUTH

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0406 20:02	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	35.6	mg/kg	12.2
C19-C36 Aliphatics	25.8	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	34.2	mg/kg	12.2
C11-C22 Aromatics, Adjusted	34.2	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	61.0	%	40-140
o-Terphenyl	66.0	%	40-140
2-Fluorobiphenyl	78.0	%	40-140
2-Bromonaphthalene	81.0	%	40-140

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: L0403080-03
AB-CB-NSW-S1
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 11:05
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	85.	%	0.10	30 2540G		0331 20:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-03
AB-CB-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 16:16	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.91
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.91
C9-C10 Aromatics	ND	mg/kg	1.91
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.91
C9-C12 Aliphatics, Adjusted	ND	mg/kg	1.91
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.191
Naphthalene	ND	mg/kg	0.954

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	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: L0403080-03
AB-CB-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0406 20:48	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.8
C19-C36 Aliphatics	ND	mg/kg	11.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.8
Naphthalene	ND	mg/kg	0.588
2-Methylnaphthalene	ND	mg/kg	0.588
Acenaphthylene	ND	mg/kg	0.588
Acenaphthene	ND	mg/kg	0.588
Fluorene	ND	mg/kg	0.588
Phenanthrene	ND	mg/kg	0.588
Anthracene	ND	mg/kg	0.588
Fluoranthene	ND	mg/kg	0.588
Pyrene	ND	mg/kg	0.588
Benzo(a)anthracene	ND	mg/kg	0.588
Chrysene	ND	mg/kg	0.588
Benzo(b)fluoranthene	ND	mg/kg	0.588
Benzo(k)fluoranthene	ND	mg/kg	0.588
Benzo(a)pyrene	ND	mg/kg	0.588
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.588
Dibenzo(a,h)anthracene	ND	mg/kg	0.588
Benzo(g,h,i)perylene	ND	mg/kg	0.588

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	32.0	%	40-140
o-Terphenyl	57.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-03
AB-CB-NSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0407 11:30	0407 15:29	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.8
C19-C36 Aliphatics	ND	mg/kg	11.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.8
Naphthalene	ND	mg/kg	0.588
2-Methylnaphthalene	ND	mg/kg	0.588
Acenaphthylene	ND	mg/kg	0.588
Acenaphthene	ND	mg/kg	0.588
Fluorene	ND	mg/kg	0.588
Phenanthrene	ND	mg/kg	0.588
Anthracene	ND	mg/kg	0.588
Fluoranthene	ND	mg/kg	0.588
Pyrene	ND	mg/kg	0.588
Benzo(a)anthracene	ND	mg/kg	0.588
Chrysene	ND	mg/kg	0.588
Benzo(b)fluoranthene	ND	mg/kg	0.588
Benzo(k)fluoranthene	ND	mg/kg	0.588
Benzo(a)pyrene	ND	mg/kg	0.588
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.588
Dibenzo(a,h)anthracene	ND	mg/kg	0.588
Benzo(g,h,i)perylene	ND	mg/kg	0.588

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	39.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	85.0	%	40-140
2-Bromonaphthalene	81.0	%	40-140

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: L0403080-04
AB-CB-SSW-S1
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 11:10
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83.	%	0.10	30 2540G		0331 20:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-04
AB-CB-SSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 17:06	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.26
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.26
C9-C10 Aromatics	ND	mg/kg	2.26
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.26
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.26
Benzene	ND	mg/kg	0.113
Toluene	ND	mg/kg	0.113
Ethylbenzene	ND	mg/kg	0.113
p/m-Xylene	ND	mg/kg	0.113
o-Xylene	ND	mg/kg	0.113
Methyl tert butyl ether	ND	mg/kg	0.226
Naphthalene	ND	mg/kg	1.13

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	111.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-04
AB-CB-SSW-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0406 21:34	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.0
C19-C36 Aliphatics	ND	mg/kg	12.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.0
Naphthalene	ND	mg/kg	0.602
2-Methylnaphthalene	ND	mg/kg	0.602
Acenaphthylene	ND	mg/kg	0.602
Acenaphthene	ND	mg/kg	0.602
Fluorene	ND	mg/kg	0.602
Phenanthrene	ND	mg/kg	0.602
Anthracene	ND	mg/kg	0.602
Fluoranthene	ND	mg/kg	0.602
Pyrene	ND	mg/kg	0.602
Benzo(a)anthracene	ND	mg/kg	0.602
Chrysene	ND	mg/kg	0.602
Benzo(b)fluoranthene	ND	mg/kg	0.602
Benzo(k)fluoranthene	ND	mg/kg	0.602
Benzo(a)pyrene	ND	mg/kg	0.602
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.602
Dibenzo(a,h)anthracene	ND	mg/kg	0.602
Benzo(g,h,i)perylene	ND	mg/kg	0.602

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	66.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	79.0	%	40-140

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: L0403080-05
AB-CB-BOT-S1
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 11:00
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	84.	%	0.10	30 2540G		0331 20:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403080-05
AB-CB-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 17:57	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.08
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.08
C9-C10 Aromatics	ND	mg/kg	2.08
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.08
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.08
Benzene	ND	mg/kg	0.104
Toluene	ND	mg/kg	0.104
Ethylbenzene	ND	mg/kg	0.104
p/m-Xylene	ND	mg/kg	0.104
o-Xylene	ND	mg/kg	0.104
Methyl tert butyl ether	ND	mg/kg	0.208
Naphthalene	ND	mg/kg	1.04

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	108.	%	70-130
2,5-Dibromotoluene-FID	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: L0403080-05
AB-CB-BOT-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0406 22:20	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.9
C19-C36 Aliphatics	ND	mg/kg	11.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.9
Naphthalene	ND	mg/kg	0.595
2-Methylnaphthalene	ND	mg/kg	0.595
Acenaphthylene	ND	mg/kg	0.595
Acenaphthene	ND	mg/kg	0.595
Fluorene	ND	mg/kg	0.595
Phenanthrene	ND	mg/kg	0.595
Anthracene	ND	mg/kg	0.595
Fluoranthene	ND	mg/kg	0.595
Pyrene	ND	mg/kg	0.595
Benzo(a)anthracene	ND	mg/kg	0.595
Chrysene	ND	mg/kg	0.595
Benzo(b)fluoranthene	ND	mg/kg	0.595
Benzo(k)fluoranthene	ND	mg/kg	0.595
Benzo(a)pyrene	ND	mg/kg	0.595
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.595
Dibenzo(a,h)anthracene	ND	mg/kg	0.595
Benzo(g,h,i)perylene	ND	mg/kg	0.595

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	41.0	%	40-140
o-Terphenyl	58.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	76.0	%	40-140

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: L0403080-06
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 31-MAR-2004 09:35
Date Received : 31-MAR-2004
Date Reported : 07-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Vial

Comments:
Results are reported on an 'AS RECEIVED' basis.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0402 18:48	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00
C9-C10 Aromatics	ND	mg/kg	2.00
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.200
Naphthalene	ND	mg/kg	1.00

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	102.	%	70-130
2,5-Dibromotoluene-FID	107.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403080

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-05 (L0403059-01, WG166664)					
Solids, Total	81.	83.	%	2	
Volatile Petroleum Hydrocarbons for sample(s) 01-06 (L0402934-07, WG166604)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	91.0	82.0	%	10	70-130
2,5-Dibromotoluene-FID	112.	105.	%	6	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (L0403080-01, WG166755)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	53.0	60.0	%	12	40-140
o-Terphenyl	61.0	69.0	%	12	40-140
2-Fluorobiphenyl	78.0	81.0	%	4	40-140
2-Bromonaphthalene	79.0	81.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403080

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-06 (WG166604)		
Benzene	86	70-130
Toluene	78	70-130
Ethylbenzene	94	70-130
p/m-Xylene	85	70-130
o-Xylene	83	70-130
Methyl tert butyl ether	71	70-130
Naphthalene	79	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	83	70-130
2,5-Dibromotoluene-FID	102	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG166755)		
Naphthalene	50	40-140
Acenaphthene	62	40-140
Anthracene	73	40-140
Pyrene	79	40-140
Chrysene	78	40-140
Nonane (C9)	53	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	81	40-140
Eicosane (C20)	81	40-140
Octacosane (C28)	77	40-140
Surrogate(s)		
Chloro-Octadecane	66	40-140
o-Terphenyl	78	40-140
2-Fluorobiphenyl	78	40-140
2-Bromonaphthalene	65	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403080

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG166604-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0401 13:12	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	107.	%	70-130				
2,5-Dibromotoluene-FID	113.	%	70-130				
Blank Analysis for sample(s) 02-06 (WG166604-5)							
Volatile Petroleum Hydrocarbons				47 98-1		0402 10:07	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	114.	%	70-130				
2,5-Dibromotoluene-FID	112.	%	70-130				
Blank Analysis for sample(s) 01-05 (WG166755-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0401 10:15	0402 13:42	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403080

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG166755-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0401 10:15	0402 13:42	LL
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	62.0	%	40-140				
o-Terphenyl	84.0	%	40-140				
2-Fluorobiphenyl	87.0	%	40-140				
2-Bromonaphthalene	70.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403080

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
L0403080-01A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX
L0403080-01B	Amber 250ml unpreserved	A	N/A	1.1 C	Y	Absent	EPH-DELUX, TS
L0403080-02A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX
L0403080-02B	Amber 250ml unpreserved	A	N/A	1.1 C	Y	Absent	EPH-DELUX, TS
L0403080-03A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX
L0403080-03B	Amber 250ml unpreserved	A	N/A	1.1 C	Y	Absent	EPH-DELUX, TS
L0403080-04A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX
L0403080-04B	Amber 250ml unpreserved	A	N/A	1.1 C	Y	Absent	EPH-DELUX, TS
L0403080-05A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX
L0403080-05B	Amber 250ml unpreserved	A	N/A	1.1 C	Y	Absent	EPH-DELUX, TS
L0403080-06A	Vial MeOH preserved	A	N/A	1.1 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30660-000
PROJECT NAME BRABANK SCHOOL
H&A CONTACT STEVE PROVENCHER

LABORATORY ALPHA
ADDRESS
CONTACT

DELIVERY DATE 3/31/04
TURNAROUND TIME STANDARD
PROJECT MANAGER JOEL MOONEY

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) EPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
BIN-CLAY-BOTTOM	3/31/04	845	8	SOIL				NA	X	X							2
BIN-CLAY-SOUTH	"	845		SOIL					X	X							2
AB-CB-NSW-S1	"	1105	6-10	SOIL					X	X							2
AB-CB-SSW-S1	"	1110	6-10	SOIL					X	X							2
AB-CB-BOT-S1	"	1100	10	SOIL					X	X							2
TRIP BLANK									X								1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) & (2) EPH/VPH AND TARGET ANALYTES.

Sampled and Relinquished by	Received by
Sign Todd R Burch	Sign Mark Dobsky
Print Todd Burch	Print Mark Dobsky
Firm TKA	Firm H&A
Date 3/31/04 Time 1510	Date 3/31/04 Time 1510
Relinquished by	**Received by**
Sign Mark Dobsky	Sign
Print Mark Dobsky	Print
Firm H&A	Firm
Date 3/31/04 Time 1630	Date Time
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 3/31 Time 1921	Date 3/31 Time 1921

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	
Clear Glass	
Preservative	
Volume	

Sampling Comments

PLEASE FAX DATA TO MIKE CROWLEY @ 617.886.7777.

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ___ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
- NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☐ S1
- ☑ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0403265

Date Received: 05-APR-2004

Date Reported: 08-APR-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403265-01	UST-STKPL6-S2	BELMONT, MA
L0403265-02	UST-STKPL6-S3	BELMONT, MA

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0403265

TPH-8100

L0403265-02 has elevated limits of detection due to the 5x dilutions required by the elevated concentrations of target compounds in the samples.

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: L0403265-01
UST-STKPL6-S2
Sample Matrix: SOIL

Date Collected: 05-APR-2004 14:20
Date Received : 05-APR-2004
Date Reported : 08-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	85.	%	0.10	30 2540G		0405 22:00	LK
Hydrocarbon Scan by GC 8100M				1 8100M	0406 10:00	0407 06:51	JB
Mineral Spirits	ND	mg/kg	120				
Gasoline	ND	mg/kg	120				
Fuel Oil #2/Diesel	ND	mg/kg	120				
Fuel Oil #4	ND	mg/kg	120				
Fuel Oil #6	ND	mg/kg	120				
Motor Oil	ND	mg/kg	120				
Kerosene	ND	mg/kg	120				
Transformer Oil	ND	mg/kg	120				
Unknown Hydrocarbon	890	mg/kg	120				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	117.	%	40-140				

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: L0403265-02
UST-STKPL6-S3
Sample Matrix: SOIL

Date Collected: 05-APR-2004 14:15
Date Received : 05-APR-2004
Date Reported : 08-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30	2540G		0408 09:05	MV
Hydrocarbon Scan by GC 8100M				1	8100M	0406 10:00	0407 14:40	JB
Mineral Spirits	ND	mg/kg	630					
Gasoline	ND	mg/kg	630					
Fuel Oil #2/Diesel	ND	mg/kg	630					
Fuel Oil #4	ND	mg/kg	630					
Fuel Oil #6	ND	mg/kg	630					
Motor Oil	ND	mg/kg	630					
Kerosene	ND	mg/kg	630					
Transformer Oil	ND	mg/kg	630					
Unknown Hydrocarbon	2800	mg/kg	630					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	125.	%	40-140					

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403265

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01 (L0403252-08, WG166976)					
Solids, Total	82.	81.	%	1	
Solids, Total for sample(s) 02 (L0403333-01, WG167216)					
Solids, Total	86.	86.	%	0	
Hydrocarbon Scan by GC 8100M for sample(s) 01-02 (L0403265-01, WG167024)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	890	740	mg/kg	18	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	117.	104.	%	12	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403265

Parameter	% Recovery	QC Criteria
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01-02 (WG167024)		
Petroleum Spike	74	40-140
Surrogate(s)		
o-Terphenyl	113	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403265

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG167024-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0406 10:00	0407 03:41	JB
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	84.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO. 30660-000 | LABORATORY ACHA | DELIVERY DATE 4/5/04
PROJECT NAME Burbank School | ADDRESS | TURNAROUND TIME 3 DAYS
H&A CONTACT Steve Provencher | CONTACT | PROJECT MANAGER Joel Mowery

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	(1) TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
USF-SMPL6-S2	4/5/04	1420	—	Soil							X						1
USF-SMPL7-S3	"	1415	—	"							X						1

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) TPH by GC-FID Mem 310D

Sampled and Relinquished by	Received by
Sign Todd Burke	Sign
Print Todd Burke	Print
Firm H&A	Firm
Date 4/5/04 Time 1545	Date 4/5/04 Time 1545
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 4/5 Time 1845	Date 4/5 Time 1845
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	X
Clear Glass	
Preservative	A
Volume	40z

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Sampling Comments

- Please Fax Data To Mike Crowley @ 617.886.7777

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ____ This Chain of Custody Record (specify) ____ includes ____ does not include samples defined as Drinking Water Samples.
- NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ____ analyze ____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☑ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

WHITE ... tory CANA ... ject Ma ... - Haley ... h Labo ... ENRO ... & Ale ... tact ... 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0403320

Date Received: 06-APR-2004

Date Reported: 09-APR-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0403320
Date Reported: 09-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403320-01	121N-CONC-NSW1-S4	BELMONT, MA
L0403320-02	121N-CONC-BOT1-S3	BELMONT, MA
L0403320-03	121N-CON-SSW1-S4	BELMONT, MA
L0403320-04	DMH-NSW-S3	BELMONT, MA
L0403320-05	DMH-BOT-S3	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403320

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0403320-01
121N-CONC-NSW1-S4
Sample Matrix: SOIL

Date Collected: 06-APR-2004 13:08
Date Received : 06-APR-2004
Date Reported : 09-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	84.	%	0.10	30 2540G		0406 21:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-01
121N-CONC-NSW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0407 15:36	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.16
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.16
C9-C10 Aromatics	ND	mg/kg	2.16
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.16
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.16
Benzene	ND	mg/kg	0.108
Toluene	ND	mg/kg	0.108
Ethylbenzene	ND	mg/kg	0.108
p/m-Xylene	ND	mg/kg	0.108
o-Xylene	ND	mg/kg	0.108
Methyl tert butyl ether	ND	mg/kg	0.216
Naphthalene	ND	mg/kg	1.08

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	118.	%	70-130
2,5-Dibromotoluene-FID	113.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-01
121N-CONC-NSW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0406 21:00	0407 14:49	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.9
C19-C36 Aliphatics	ND	mg/kg	11.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.9
Naphthalene	ND	mg/kg	0.595
2-Methylnaphthalene	ND	mg/kg	0.595
Acenaphthylene	ND	mg/kg	0.595
Acenaphthene	ND	mg/kg	0.595
Fluorene	ND	mg/kg	0.595
Phenanthrene	ND	mg/kg	0.595
Anthracene	ND	mg/kg	0.595
Fluoranthene	ND	mg/kg	0.595
Pyrene	ND	mg/kg	0.595
Benzo(a)anthracene	ND	mg/kg	0.595
Chrysene	ND	mg/kg	0.595
Benzo(b)fluoranthene	ND	mg/kg	0.595
Benzo(k)fluoranthene	ND	mg/kg	0.595
Benzo(a)pyrene	ND	mg/kg	0.595
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.595
Dibenzo(a,h)anthracene	ND	mg/kg	0.595
Benzo(g,h,i)perylene	ND	mg/kg	0.595

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	56.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	79.0	%	40-140

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: L0403320-02
121N-CONC-BOT1-S3
Sample Matrix: SOIL

Date Collected: 06-APR-2004 13:10
Date Received : 06-APR-2004
Date Reported : 09-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	88.	%	0.10	30 2540G		0406 21:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-02
121N-CONC-BOT1-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0407 16:27	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C10 Aromatics	ND	mg/kg	2.29
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.29
Benzene	ND	mg/kg	0.114
Toluene	ND	mg/kg	0.114
Ethylbenzene	ND	mg/kg	0.114
p/m-Xylene	ND	mg/kg	0.114
o-Xylene	ND	mg/kg	0.114
Methyl tert butyl ether	ND	mg/kg	0.229
Naphthalene	ND	mg/kg	1.14

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	98.0	%	70-130
2,5-Dibromotoluene-FID	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: L0403320-02
121N-CONC-BOT1-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0406 21:00	0407 16:14	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.4
C19-C36 Aliphatics	ND	mg/kg	11.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.4
Naphthalene	ND	mg/kg	0.568
2-Methylnaphthalene	ND	mg/kg	0.568
Acenaphthylene	ND	mg/kg	0.568
Acenaphthene	ND	mg/kg	0.568
Fluorene	ND	mg/kg	0.568
Phenanthrene	ND	mg/kg	0.568
Anthracene	ND	mg/kg	0.568
Fluoranthene	ND	mg/kg	0.568
Pyrene	ND	mg/kg	0.568
Benzo(a)anthracene	ND	mg/kg	0.568
Chrysene	ND	mg/kg	0.568
Benzo(b)fluoranthene	ND	mg/kg	0.568
Benzo(k)fluoranthene	ND	mg/kg	0.568
Benzo(a)pyrene	ND	mg/kg	0.568
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.568
Dibenzo(a,h)anthracene	ND	mg/kg	0.568
Benzo(g,h,i)perylene	ND	mg/kg	0.568

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	46.0	%	40-140
o-Terphenyl	76.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

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: L0403320-03
121N-CON-SSW1-S4
Sample Matrix: SOIL

Date Collected: 06-APR-2004 13:12
Date Received : 06-APR-2004
Date Reported : 09-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0406 21:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-03
121N-CON-SSW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 21:40	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.37
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.37
C9-C10 Aromatics	ND	mg/kg	3.37
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.37
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.37
Benzene	ND	mg/kg	0.168
Toluene	ND	mg/kg	0.168
Ethylbenzene	ND	mg/kg	0.168
p/m-Xylene	ND	mg/kg	0.168
o-Xylene	ND	mg/kg	0.168
Methyl tert butyl ether	ND	mg/kg	0.337
Naphthalene	ND	mg/kg	1.68

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	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: L0403320-03
121N-CON-SSW1-S4

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0406 21:00	0407 17:02	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	52.0	%	40-140
o-Terphenyl	60.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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: L0403320-04
DMH-NSW-S3
Sample Matrix: SOIL

Date Collected: 06-APR-2004 13:15
Date Received : 06-APR-2004
Date Reported : 09-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78.	%	0.10	30 2540G		0406 21:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-04
DMH-NSW-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0407 18:09	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.48
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.48
C9-C10 Aromatics	ND	mg/kg	2.48
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.48
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.48
Benzene	ND	mg/kg	0.124
Toluene	ND	mg/kg	0.124
Ethylbenzene	ND	mg/kg	0.124
p/m-Xylene	ND	mg/kg	0.124
o-Xylene	ND	mg/kg	0.124
Methyl tert butyl ether	ND	mg/kg	0.248
Naphthalene	ND	mg/kg	1.24

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	107.	%	70-130
2,5-Dibromotoluene-FID	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: L0403320-04
DMH-NSW-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0406 21:00	0407 17:51	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.8
C19-C36 Aliphatics	ND	mg/kg	12.8
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.8
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.8
Naphthalene	ND	mg/kg	0.641
2-Methylnaphthalene	ND	mg/kg	0.641
Acenaphthylene	ND	mg/kg	0.641
Acenaphthene	ND	mg/kg	0.641
Fluorene	ND	mg/kg	0.641
Phenanthrene	ND	mg/kg	0.641
Anthracene	ND	mg/kg	0.641
Fluoranthene	ND	mg/kg	0.641
Pyrene	ND	mg/kg	0.641
Benzo(a)anthracene	ND	mg/kg	0.641
Chrysene	ND	mg/kg	0.641
Benzo(b)fluoranthene	ND	mg/kg	0.641
Benzo(k)fluoranthene	ND	mg/kg	0.641
Benzo(a)pyrene	ND	mg/kg	0.641
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.641
Dibenzo(a,h)anthracene	ND	mg/kg	0.641
Benzo(g,h,i)perylene	ND	mg/kg	0.641

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	54.0	%	40-140
o-Terphenyl	59.0	%	40-140
2-Fluorobiphenyl	71.0	%	40-140
2-Bromonaphthalene	75.0	%	40-140

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: L0403320-05
DMH-BOT-S3
Sample Matrix: SOIL

Date Collected: 06-APR-2004 13:17
Date Received : 06-APR-2004
Date Reported : 09-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	76.	%	0.10	30 2540G		0406 21:30	LK

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-05
DMH-BOT-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0407 19:00	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.42
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.42
C9-C10 Aromatics	ND	mg/kg	2.42
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.42
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.42
Benzene	ND	mg/kg	0.121
Toluene	ND	mg/kg	0.121
Ethylbenzene	ND	mg/kg	0.121
p/m-Xylene	ND	mg/kg	0.121
o-Xylene	ND	mg/kg	0.121
Methyl tert butyl ether	ND	mg/kg	0.242
Naphthalene	ND	mg/kg	1.21

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	105.	%	70-130
2,5-Dibromotoluene-FID	103.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403320-05
DMH-BOT-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0406 21:00	0407 18:40	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	13.2
C19-C36 Aliphatics	ND	mg/kg	13.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	13.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	13.2
Naphthalene	ND	mg/kg	0.658
2-Methylnaphthalene	ND	mg/kg	0.658
Acenaphthylene	ND	mg/kg	0.658
Acenaphthene	ND	mg/kg	0.658
Fluorene	ND	mg/kg	0.658
Phenanthrene	ND	mg/kg	0.658
Anthracene	ND	mg/kg	0.658
Fluoranthene	ND	mg/kg	0.658
Pyrene	ND	mg/kg	0.658
Benzo(a)anthracene	ND	mg/kg	0.658
Chrysene	ND	mg/kg	0.658
Benzo(b)fluoranthene	ND	mg/kg	0.658
Benzo(k)fluoranthene	ND	mg/kg	0.658
Benzo(a)pyrene	ND	mg/kg	0.658
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.658
Dibenzo(a,h)anthracene	ND	mg/kg	0.658
Benzo(g,h,i)perylene	ND	mg/kg	0.658

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	43.0	%	40-140
o-Terphenyl	63.0	%	40-140
2-Fluorobiphenyl	74.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403320

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-05 (L0403282-01, WG167103)					
Solids, Total	82.	84.	%	2	
Volatile Petroleum Hydrocarbons for sample(s) 01-02,04-05 (L0403212-01, WG167146)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	109.	116.	%	6	70-130
2,5-Dibromotoluene-FID	106.	115.	%	8	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (L0403212-03, WG167026)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	43.0	46.0	%	7	40-140
o-Terphenyl	67.0	64.0	%	5	40-140
2-Fluorobiphenyl	67.0	67.0	%	0	40-140
2-Bromonaphthalene	67.0	65.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403320

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02,04-05 (WG167146)		
Benzene	119	70-130
Toluene	106	70-130
Ethylbenzene	119	70-130
p/m-Xylene	109	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	108	70-130
Naphthalene	123	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	108	70-130
2,5-Dibromotoluene-FID	105	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 03 (WG167382)		
Benzene	117	70-130
Toluene	106	70-130
Ethylbenzene	120	70-130
p/m-Xylene	111	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	105	70-130
Naphthalene	120	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	118	70-130
2,5-Dibromotoluene-FID	116	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG167026)		
Naphthalene	50	40-140
Acenaphthene	59	40-140
Anthracene	70	40-140
Pyrene	80	40-140
Chrysene	84	40-140
Nonane (C9)	54	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	81	40-140
Eicosane (C20)	80	40-140
Octacosane (C28)	79	40-140
Surrogate(s)		
Chloro-Octadecane	45	40-140
o-Terphenyl	73	40-140
2-Fluorobiphenyl	77	40-140
2-Bromonaphthalene	65	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403320

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02,04-05 (WG167146-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0406 08:07	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	111.	%	70-130				
2,5-Dibromotoluene-FID	114.	%	70-130				
Blank Analysis for sample(s) 03 (WG167382-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0408 07:26	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	94.0	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 01-05 (WG167026-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0406 11:50	0407 11:19	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403320

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG167026-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0406 11:50	0407 11:19	LL
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	56.0	%	40-140				
o-Terphenyl	82.0	%	40-140				
2-Fluorobiphenyl	75.0	%	40-140				
2-Bromonaphthalene	73.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403320

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
L0403320-01A	Vial MeOH preserved	A	N/A	4.2 C	Y	Absent	VPH-DELUX
L0403320-01B	Amber 250ml unpreserved	A	N/A	4.2 C	Y	Absent	EPH-DELUX, TS
L0403320-02A	Vial MeOH preserved	A	N/A	4.2 C	Y	Absent	VPH-DELUX
L0403320-02B	Amber 250ml unpreserved	A	N/A	4.2 C	Y	Absent	EPH-DELUX, TS
L0403320-03A	Vial MeOH preserved	A	N/A	4.2 C	Y	Absent	VPH-DELUX
L0403320-03B	Amber 250ml unpreserved	A	N/A	4.2 C	Y	Absent	EPH-DELUX, TS
L0403320-04A	Vial MeOH preserved	A	N/A	4.2 C	Y	Absent	VPH-DELUX
L0403320-04B	Amber 250ml unpreserved	A	N/A	4.2 C	Y	Absent	EPH-DELUX, TS
L0403320-05A	Vial MeOH preserved	A	N/A	4.2 C	Y	Absent	VPH-DELUX
L0403320-05B	Amber 250ml unpreserved	A	N/A	4.2 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

H&A FILE NO. 30660-000
PROJECT NAME Bulkhead Source
H&A CONTACT Steve Provencal

LABORATORY AIHA
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 3 Days
PROJECT MANAGER Jon Mooney

Sample No.	Date	Time	Depth (ft)	Type	Analysis Requested: VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) EPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
121H-CONC-NSW1-S4	4/6/04	1308	4-6	Soil					X	X							2
121H-CONC-BOT1-S3	"	1310	8						X	X							2
121H-CONC-SSW1-S4	"	1312	4-8						X	X							2
DMH-NSW-S3	"	1315	6-10						X	X							2
DMH-BOT-S3		1317	10						X	X							2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) & (2) EPH/VPH & Target Analytes.

Sampled and Relinquished by	Received by
Sign Todd R Burke	Sign Mark Dobdy
Print Todd Burke	Print Mark Dobdy
Firm H&A	Firm H&A
Date 4/6/04 Time 1602	Date 4/6/04 Time 1602
Relinquished by	**Received by**
Sign Mark Dobdy	Sign
Print Mark Dobdy	Print
Firm H&A	Firm
Date 4/6/04 Time 1634	Date Time 1634
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 4/6 Time 2000	Date 4/6 Time 2000

LIQUID	
VOA Vial	
Amber Glass	
Plastic Bottle	
Preservative	
Volume	

SOLID	
VOA Vial	
Amber Glass	
Clear Glass	
Preservative	
Volume	

PRESERVATION KEY

A Sample chilled C NaOH E H_2SO_4 G Methanol
B Sample filtered D HNO_3 F HCL H Water/NaHSO4 (circle)

Sampling Comments

* Please Fax Results To Mike Crohan @ 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes ✓ does not include samples defined as Drinking Water Samples.

NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☑ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0403393

Date Received: 07-APR-2004

Date Reported: 12-APR-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0403393
Date Reported: 12-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403393-01	CB-BOT-S3	BELMONT, MA
L0403393-02	CB-ESW-S3	BELMONT, MA
L0403393-03	12IN-CONC-BOT2-S2	BELMONT, MA
L0403393-04	12IN-CONC-SSW2-S2	BELMONT, MA
L0403393-05	12IN-CONC-NSW2-S2	BELMONT, MA

Laboratory Job Number: L0403393

Extraction Methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0403393-01
CB-BOT-S3
Sample Matrix: SOIL

Date Collected: 07-APR-2004 08:40
Date Received : 07-APR-2004
Date Reported : 12-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0409 11:30	ED

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

Laboratory Sample Number: L0403393-01
CB-BOT-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 09:48	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	1.94
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	1.94
C9-C10 Aromatics	ND	mg/kg	1.94
C5-C8 Aliphatics, Adjusted	ND	mg/kg	1.94
C9-C12 Aliphatics, Adjusted	ND	mg/kg	1.94
Benzene	ND	mg/kg	0.100
Toluene	ND	mg/kg	0.100
Ethylbenzene	ND	mg/kg	0.100
p/m-Xylene	ND	mg/kg	0.100
o-Xylene	ND	mg/kg	0.100
Methyl tert butyl ether	ND	mg/kg	0.194
Naphthalene	ND	mg/kg	0.970

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	109.	%	70-130
2,5-Dibromotoluene-FID	111.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-01
CB-BOT-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 16:48	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	42.0	%	40-140
o-Terphenyl	77.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	72.0	%	40-140

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: L0403393-02
CB-ESW-S3
Sample Matrix: SOIL

Date Collected: 07-APR-2004 08:45
Date Received : 07-APR-2004
Date Reported : 12-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0409 11:30	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-02
CB-ESW-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 12:21	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.04
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.04
C9-C10 Aromatics	ND	mg/kg	2.04
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.04
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.04
Benzene	ND	mg/kg	0.102
Toluene	ND	mg/kg	0.102
Ethylbenzene	ND	mg/kg	0.102
p/m-Xylene	ND	mg/kg	0.102
o-Xylene	ND	mg/kg	0.102
Methyl tert butyl ether	ND	mg/kg	0.204
Naphthalene	ND	mg/kg	1.02

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	111.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-02
CB-ESW-S3

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 17:37	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	43.0	%	40-140
o-Terphenyl	68.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	68.0	%	40-140

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: L0403393-03
12IN-CONC-BOT2-S2
Sample Matrix: SOIL

Date Collected: 07-APR-2004 13:43
Date Received : 07-APR-2004
Date Reported : 12-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	95.	%	0.10	30 2540G		0409 11:30	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-03
12IN-CONC-BOT2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 13:12	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.37
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.37
C9-C10 Aromatics	ND	mg/kg	2.37
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.37
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.37
Benzene	ND	mg/kg	0.119
Toluene	ND	mg/kg	0.119
Ethylbenzene	ND	mg/kg	0.119
p/m-Xylene	ND	mg/kg	0.119
o-Xylene	ND	mg/kg	0.119
Methyl tert butyl ether	ND	mg/kg	0.237
Naphthalene	ND	mg/kg	1.19

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	102.	%	70-130
2,5-Dibromotoluene-FID	103.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-03
12IN-CONC-BOT2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 18:26	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	ND	mg/kg	0.526
Pyrene	ND	mg/kg	0.526
Benzo(a)anthracene	ND	mg/kg	0.526
Chrysene	ND	mg/kg	0.526
Benzo(b)fluoranthene	ND	mg/kg	0.526
Benzo(k)fluoranthene	ND	mg/kg	0.526
Benzo(a)pyrene	ND	mg/kg	0.526
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.526
Dibenzo(a,h)anthracene	ND	mg/kg	0.526
Benzo(g,h,i)perylene	ND	mg/kg	0.526

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	43.0	%	40-140
o-Terphenyl	69.0	%	40-140
2-Fluorobiphenyl	71.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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: L0403393-04
12IN-CONC-SSW2-S2
Sample Matrix: SOIL

Date Collected: 07-APR-2004 13:40
Date Received : 07-APR-2004
Date Reported : 12-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	96.	%	0.10	30 2540G		0409 11:30	ED

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-04
12IN-CONC-SSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 14:02	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	Below 1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	5.48
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	5.48
C9-C10 Aromatics	ND	mg/kg	5.48
C5-C8 Aliphatics, Adjusted	ND	mg/kg	5.48
C9-C12 Aliphatics, Adjusted	ND	mg/kg	5.48
Benzene	ND	mg/kg	0.274
Toluene	ND	mg/kg	0.274
Ethylbenzene	ND	mg/kg	0.274
p/m-Xylene	ND	mg/kg	0.274
o-Xylene	ND	mg/kg	0.274
Methyl tert butyl ether	ND	mg/kg	0.548
Naphthalene	ND	mg/kg	2.74

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	112.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-04
12IN-CONC-SSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 19:15	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.4
C19-C36 Aliphatics	ND	mg/kg	10.4
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.4
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.4
Naphthalene	ND	mg/kg	0.521
2-Methylnaphthalene	ND	mg/kg	0.521
Acenaphthylene	ND	mg/kg	0.521
Acenaphthene	ND	mg/kg	0.521
Fluorene	ND	mg/kg	0.521
Phenanthrene	ND	mg/kg	0.521
Anthracene	ND	mg/kg	0.521
Fluoranthene	ND	mg/kg	0.521
Pyrene	ND	mg/kg	0.521
Benzo(a)anthracene	ND	mg/kg	0.521
Chrysene	ND	mg/kg	0.521
Benzo(b)fluoranthene	ND	mg/kg	0.521
Benzo(k)fluoranthene	ND	mg/kg	0.521
Benzo(a)pyrene	ND	mg/kg	0.521
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.521
Dibenzo(a,h)anthracene	ND	mg/kg	0.521
Benzo(g,h,i)perylene	ND	mg/kg	0.521

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	47.0	%	40-140
o-Terphenyl	77.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	78.0	%	40-140

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: L0403393-05
12IN-CONC-NSW2-S2
Sample Matrix: SOIL

Date Collected: 07-APR-2004 13:46
Date Received : 07-APR-2004
Date Reported : 12-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	95.	%	0.10	30 2540G		0409 11:30	ED

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

Laboratory Sample Number: L0403393-05
12IN-CONC-NSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0408 14:53	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.51
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.51
C9-C10 Aromatics	ND	mg/kg	2.51
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.51
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.51
Benzene	ND	mg/kg	0.125
Toluene	ND	mg/kg	0.125
Ethylbenzene	ND	mg/kg	0.125
p/m-Xylene	ND	mg/kg	0.125
o-Xylene	ND	mg/kg	0.125
Methyl tert butyl ether	ND	mg/kg	0.251
Naphthalene	ND	mg/kg	1.25

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	117.	%	70-130
2,5-Dibromotoluene-FID	116.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403393-05
12IN-CONC-NSW2-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 20:04	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	ND	mg/kg	0.526
Pyrene	ND	mg/kg	0.526
Benzo(a)anthracene	ND	mg/kg	0.526
Chrysene	ND	mg/kg	0.526
Benzo(b)fluoranthene	ND	mg/kg	0.526
Benzo(k)fluoranthene	ND	mg/kg	0.526
Benzo(a)pyrene	ND	mg/kg	0.526
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.526
Dibenzo(a,h)anthracene	ND	mg/kg	0.526
Benzo(g,h,i)perylene	ND	mg/kg	0.526

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	46.0	%	40-140
o-Terphenyl	74.0	%	40-140
2-Fluorobiphenyl	76.0	%	40-140
2-Bromonaphthalene	70.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403393

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-05 (L0403393-02, WG167388)					
Solids, Total	96.	95.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-05 (L0403393-01, WG167382)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	109.	103.	%	6	70-130
2,5-Dibromotoluene-FID	111.	105.	%	6	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-05 (L0403393-01, WG167292)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	42.0	42.0	%	0	40-140
o-Terphenyl	77.0	68.0	%	12	40-140
2-Fluorobiphenyl	72.0	68.0	%	6	40-140
2-Bromonaphthalene	72.0	63.0	%	13	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403393

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG167382)		
Benzene	117	70-130
Toluene	106	70-130
Ethylbenzene	120	70-130
p/m-Xylene	111	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	105	70-130
Naphthalene	120	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	118	70-130
2,5-Dibromotoluene-FID	116	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-05 (WG167292)		
Naphthalene	40	40-140
Acenaphthene	52	40-140
Anthracene	69	40-140
Pyrene	77	40-140
Chrysene	80	40-140
Nonane (C9)	52	40-140
Tetradecane (C14)	65	40-140
Nonadecane (C19)	81	40-140
Eicosane (C20)	85	40-140
Octacosane (C28)	86	40-140
Surrogate(s)		
Chloro-Octadecane	47	40-140
o-Terphenyl	69	40-140
2-Fluorobiphenyl	64	40-140
2-Bromonaphthalene	52	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403393

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-05 (WG167382-3)							
Volatile Petroleum Hydrocarbons				47 98-1	0408 07:26		PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	94.0	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 01-05 (WG167292-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 14:21	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	56.0	%	40-140				
o-Terphenyl	77.0	%	40-140				
2-Fluorobiphenyl	67.0	%	40-140				
2-Bromonaphthalene	67.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403393

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
L0403393-01A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0403393-01B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0403393-02A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0403393-02B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0403393-03A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0403393-03B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0403393-04A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0403393-04B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS
L0403393-05A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	VPH-DELUX
L0403393-05B	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO.	30660-000	LABORATORY	ADHA
PROJECT NAME	Burbank School	ADDRESS	
H&A CONTACT	Steve Provencal	CONTACT	
DELIVERY DATE	04/07/04		
TURNAROUND TIME	3 Days		
PROJECT MANAGER	Joe Maney		

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity	Number of Containers
CB-BOT-S3	4/7/04	840	10	SOIL					X	X				2
CB-BSW-S3	"	845	6-8						X	X				2
12IN-COVE-BOT2-S2		1348	10						X	X				2
12IN-COVE-BSW2-S2		1340	8-10						X	X				2
12IN-COVE-HSW2-S2		1346	8-10						X	X				2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1) (2) EPH/VPH and Target Analytes.

Sampled and Relinquished by	Received by
Sign Todd R Butler	Sign Desmond Crawford
Print Todd Buker	Print Desmond Crawford
Firm H&A	Firm H&A
Date 4/7/04 Time 1540	Date 04/07/04 Time 15:40
Relinquished by	**Received by**
Sign Desmond Crawford	Sign
Print Desmond Crawford	Print
Firm H&A	Firm
Date 04/07/04 Time 17:00	Date Time
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 4/7 Time 1920	Date 4/7 Time 1920

LIQUID	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Volume

SOLID	VOA Vial	Amber Glass	Clear Glass	Preservative	Volume
	X	X		C-	82

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- MS Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ___ This Chain of Custody Record (specify) ___ includes ___ does not include samples defined as Drinking Water Samples.
- MS If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ___ analyze ___ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☐ RC-S1
- ☐ RC-S2
- ☐ RC-GW1
- ☐ RC-GW2
- ☑ S1
- ☐ S2
- ☐ S3
- ☐ GW1
- ☑ GW2
- ☐ GW3

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0403469
Date Received: 08-APR-2004
Date Reported: 13-APR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

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? YES

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: L0403469
Date Reported: 13-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403469-01	12IN-CONC-NSW3-S2	BELMONT, MA
L0403469-02	12IN-CONC-BOT3-S2	BELMONT, MA
L0403469-03	12IN-CONC-SSW3-S2	BELMONT, MA
L0403469-04	8IN-CLAY-SOUTH-S2	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403469

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

Extraction Methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

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: L0403469-01
12IN-CONC-NSW3-S2
Sample Matrix: SOIL

Date Collected: 08-APR-2004 12:05
Date Received : 08-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0409 20:00	JT

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-01
12IN-CONC-NSW3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0409 12:00	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.29
C9-C10 Aromatics	ND	mg/kg	2.29
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.29
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.29
Benzene	ND	mg/kg	0.114
Toluene	ND	mg/kg	0.114
Ethylbenzene	ND	mg/kg	0.114
p/m-Xylene	ND	mg/kg	0.114
o-Xylene	ND	mg/kg	0.114
Methyl tert butyl ether	ND	mg/kg	0.229
Naphthalene	ND	mg/kg	1.14

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	108.	%	70-130
2,5-Dibromotoluene-FID	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: L0403469-01
12IN-CONC-NSW3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 12:00	0413 13:03	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	61.0	%	40-140
o-Terphenyl	77.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	78.0	%	40-140

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: L0403469-02
12IN-CONC-BOT3-S2
Sample Matrix: SOIL

Date Collected: 08-APR-2004 12:07
Date Received : 08-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0409 20:00	JT

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-02
12IN-CONC-BOT3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0409 13:48	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.32
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.32
C9-C10 Aromatics	ND	mg/kg	2.32
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.32
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.32
Benzene	ND	mg/kg	0.116
Toluene	ND	mg/kg	0.116
Ethylbenzene	ND	mg/kg	0.116
p/m-Xylene	ND	mg/kg	0.116
o-Xylene	ND	mg/kg	0.116
Methyl tert butyl ether	ND	mg/kg	0.232
Naphthalene	ND	mg/kg	1.16

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	109.	%	70-130
2,5-Dibromotoluene-FID	118.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-02
12IN-CONC-BOT3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0412 13:31	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	54.0	%	40-140
2-Fluorobiphenyl	68.0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

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: L0403469-03
12IN-CONC-SSW3-S2
Sample Matrix: SOIL

Date Collected: 08-APR-2004 12:08
Date Received : 08-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79.	%	0.10	30 2540G		0409 20:00	JT

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-03
12IN-CONC-SSW3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0409 14:39	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.46
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.46
C9-C10 Aromatics	ND	mg/kg	2.46
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.46
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.46
Benzene	ND	mg/kg	0.123
Toluene	ND	mg/kg	0.123
Ethylbenzene	ND	mg/kg	0.123
p/m-Xylene	ND	mg/kg	0.123
o-Xylene	ND	mg/kg	0.123
Methyl tert butyl ether	ND	mg/kg	0.246
Naphthalene	ND	mg/kg	1.23

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	109.	%	70-130
2,5-Dibromotoluene-FID	113.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-03
12IN-CONC-SSW3-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0412 14:20	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.6
C19-C36 Aliphatics	ND	mg/kg	12.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.6
Naphthalene	ND	mg/kg	0.633
2-Methylnaphthalene	ND	mg/kg	0.633
Acenaphthylene	ND	mg/kg	0.633
Acenaphthene	ND	mg/kg	0.633
Fluorene	ND	mg/kg	0.633
Phenanthrene	ND	mg/kg	0.633
Anthracene	ND	mg/kg	0.633
Fluoranthene	ND	mg/kg	0.633
Pyrene	ND	mg/kg	0.633
Benzo(a)anthracene	ND	mg/kg	0.633
Chrysene	ND	mg/kg	0.633
Benzo(b)fluoranthene	ND	mg/kg	0.633
Benzo(k)fluoranthene	ND	mg/kg	0.633
Benzo(a)pyrene	ND	mg/kg	0.633
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.633
Dibenzo(a,h)anthracene	ND	mg/kg	0.633
Benzo(g,h,i)perylene	ND	mg/kg	0.633

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	60.0	%	40-140
o-Terphenyl	50.0	%	40-140
2-Fluorobiphenyl	66.0	%	40-140
2-Bromonaphthalene	69.0	%	40-140

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: L0403469-04
8IN-CLAY-SOUTH-S2
Sample Matrix: SOIL

Date Collected: 08-APR-2004 09:30
Date Received : 08-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0409 20:00	JT

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-04
8IN-CLAY-SOUTH-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0409 15:30	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.22
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.22
C9-C10 Aromatics	ND	mg/kg	2.22
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.22
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.22
Benzene	ND	mg/kg	0.111
Toluene	ND	mg/kg	0.111
Ethylbenzene	ND	mg/kg	0.111
p/m-Xylene	ND	mg/kg	0.111
o-Xylene	ND	mg/kg	0.111
Methyl tert butyl ether	ND	mg/kg	0.222
Naphthalene	ND	mg/kg	1.11

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	110.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403469-04
8IN-CLAY-SOUTH-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 00:27	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	46.0	%	40-140
o-Terphenyl	64.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	65.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403469

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-04 (L0403442-01, WG167442)					
Solids, Total	70.	71.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 02-04 (L0403393-01, WG167382)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	109.	103.	%	6	70-130
2,5-Dibromotoluene-FID	111.	105.	%	6	70-130
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0403469-01, WG167508)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	108.	113.	%	5	70-130
2,5-Dibromotoluene-FID	104.	111.	%	7	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0403149-14, WG167639)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	393.	371.	mg/kg	6	50
C11-C22 Aromatics	299.	357.	mg/kg	18	50
C11-C22 Aromatics, Adjusted	233.	265.	mg/kg	13	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	0.875	1.43	mg/kg	48	50
Fluorene	0.637	1.09	mg/kg	52	50

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403469

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0403149-14, WG167639)					
Phenanthrene	11.1	17.2	mg/kg	43	50
Anthracene	2.15	3.60	mg/kg	50	50
Fluoranthene	11.0	16.6	mg/kg	41	50
Pyrene	10.9	15.0	mg/kg	32	50
Benzo(a)anthracene	4.69	6.32	mg/kg	30	50
Chrysene	4.72	6.01	mg/kg	24	50
Benzo(b)fluoranthene	4.55	5.70	mg/kg	22	50
Benzo(k)fluoranthene	4.01	5.39	mg/kg	29	50
Benzo(a)pyrene	4.38	5.99	mg/kg	31	50
Indeno(1,2,3-cd)Pyrene	2.58	3.42	mg/kg	28	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	3.96	4.49	mg/kg	13	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	59.0	68.0	%	14	40-140
o-Terphenyl	175.	187.	%	7	40-140
2-Fluorobiphenyl	73.0	76.0	%	4	40-140
2-Bromonaphthalene	65.0	71.0	%	9	40-140
Extractable Petroleum Hydrocarbons for sample(s) 02-04 (L0403393-01, WG167292)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	42.0	42.0	%	0	40-140
o-Terphenyl	77.0	68.0	%	12	40-140
2-Fluorobiphenyl	72.0	68.0	%	6	40-140
2-Bromonaphthalene	72.0	63.0	%	13	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403469

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 02-04 (WG167382)		
Benzene	117	70-130
Toluene	106	70-130
Ethylbenzene	120	70-130
p/m-Xylene	111	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	105	70-130
Naphthalene	120	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	118	70-130
2,5-Dibromotoluene-FID	116	70-130
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG167508)		
Benzene	116	70-130
Toluene	104	70-130
Ethylbenzene	118	70-130
p/m-Xylene	109	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	102	70-130
Naphthalene	113	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	111	70-130
2,5-Dibromotoluene-FID	111	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG167639)		
Naphthalene	47	40-140
Acenaphthene	61	40-140
Anthracene	85	40-140
Pyrene	94	40-140
Chrysene	96	40-140
Nonane (C9)	54	40-140
Tetradecane (C14)	68	40-140
Nonadecane (C19)	102	40-140
Eicosane (C20)	103	40-140
Octacosane (C28)	103	40-140
Surrogate(s)		
Chloro-Octadecane	73	40-140
o-Terphenyl	86	40-140
2-Fluorobiphenyl	79	40-140
2-Bromonaphthalene	57	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 02-04 (WG167292)		
Naphthalene	40	40-140
Acenaphthene	52	40-140
Anthracene	69	40-140
Pyrene	77	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403469

Continued

Parameter	% Recovery	QC Criteria
Extractable Petroleum Hydrocarbons LCS for sample(s) 02-04 (WG167292)		
Chrysene	80	40-140
Nonane (C9)	52	40-140
Tetradecane (C14)	65	40-140
Nonadecane (C19)	81	40-140
Eicosane (C20)	85	40-140
Octacosane (C28)	86	40-140
Surrogate(s)		
Chloro-Octadecane	47	40-140
o-Terphenyl	69	40-140
2-Fluorobiphenyl	64	40-140
2-Bromonaphthalene	52	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403469

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-04 (WG167382-4)							
Volatile Petroleum Hydrocarbons				47 98-1		0409 08:08	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	103.	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 01 (WG167508-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0409 08:08	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	103.	%	70-130				
2,5-Dibromotoluene-FID	103.	%	70-130				
Blank Analysis for sample(s) 01 (WG167639-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0412 12:00	0413 13:52	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403469

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG167639-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0412 12:00	0413 13:52	LL
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	66.0	%	40-140				
o-Terphenyl	78.0	%	40-140				
2-Fluorobiphenyl	79.0	%	40-140				
2-Bromonaphthalene	73.0	%	40-140				
Blank Analysis for sample(s) 02-04 (WG167292-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0408 11:00	0411 14:21	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	56.0	%	40-140				
o-Terphenyl	77.0	%	40-140				
2-Fluorobiphenyl	67.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403469

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 02-04 (WG167292-1)							
Extractable Petroleum Hydrocarbons continued				46 98-1	0408 11:00	0411 14:21	LL
2-Bromonaphthalene	67.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403469

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
L0403469-01A	Vial MeOH preserved	A	N/A	0.4 C	Y	Absent	VPH-DELUX
L0403469-01B	Amber 250ml unpreserved	A	N/A	0.4 C	Y	Absent	EPH-DELUX, TS
L0403469-02A	Vial MeOH preserved	A	N/A	0.4 C	Y	Absent	VPH-DELUX
L0403469-02B	Amber 250ml unpreserved	A	N/A	0.4 C	Y	Absent	EPH-DELUX, TS
L0403469-03A	Vial MeOH preserved	A	N/A	0.4 C	Y	Absent	VPH-DELUX
L0403469-03B	Amber 250ml unpreserved	A	N/A	0.4 C	Y	Absent	EPH-DELUX, TS
L0403469-04A	Vial MeOH preserved	A	N/A	0.4 C	Y	Absent	VPH-DELUX
L0403469-04B	Amber 250ml unpreserved	A	N/A	0.4 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

GOALS SETTING

DATE: 4-14-03 EMPLOYEE: Todd Butler
STAFF MANAGER: Greg Martin

Goal

Improve skills with the use of Microsoft Access, Excel, and CAD

How to Achieve Your Goal:

Actively use New Horizons online courses

Training and Resources Needed:
(Billable/Non-Billable)

Staff's own time

Timeline to Achieve Goal:

Before the end of the fiscal year.

1ST CHECK-IN SESSION
Comments:

Date	Employee's Initials	Staff Manager's Initials

2nd CHECK-IN SESSION
Comments:

Date	Employee's Initials	Staff Manager's Initials

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30(?)600-000
PROJECT NAME Burbank School
H&A CONTACT Steve Providence

LABORATORY Alpha
ADDRESS
CONTACT

DELIVERY DATE 4/8/04
TURNAROUND TIME 3 DAYS
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth (ft)	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH (1) Full Suite / C-ranges only	EPH (2) Full Suite / C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
12IH-CORE-NSWS-S2	4/6/04	1205	7-10	Soil					X	X							2
12IH-CORE-BOT3-S2	↓	1207	10	↓					X	X							2
12IH-CORE-SSWS-S2	↓	1208	7-10	↓					X	X							2
8IH-CLAY-SOUTH-S2	↓	930	6-8	↓					X	X							2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

(1)(2) EPH/VPH & Target Analytes

Sampled and Relinquished by	Received by
Sign [signature]	Sign [signature]
Print Todd Burger	Print Mark Dobeling
Firm H&A	Firm H&A
Date 4/6/04 Time 1446	Date 4/6/04 Time 1446
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print Mark Dobeling	Print Jen Baker
Firm H&A	Firm Alpha
Date 4/8/04 Time 1541	Date 4/8 Time 13:40
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print Jen Baker	Print
Firm Alpha	Firm
Date 4/8 Time 1643	Date 4/8 Time 1643

LIQUID: VOA Vial / Amber Glass / Plastic Bottle / Preservative / Volume

SOLID

	VPH	EPH
VOA Vial	X	
Amber Glass		X
Clear Glass		
Preservative	G/A	A
Volume	40ml	4oz

Sampling Comments
* Please fax results to Mike Cronin @ 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

✓ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) ______ includes ✓ does not include samples defined as Drinking Water Samples
NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ______ analyze ______ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☑ RC-S1 ☐ RC-S2 ☐ RC-GW1 ☐ RC-GW2
☑ S1 ☐ S2 ☐ S3
☐ GW1 ☑ GW2 ☐ GW3

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0403612
Date Received: 12-APR-2004
Date Reported: 14-APR-2004
Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	YES

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?	YES

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: L0403612
Date Reported: 14-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403612-01	12IN-CONC-BOT5-S1	BELMONT, MA
L0403612-02	12IN-CONC-NSW5-S1	BELMONT, MA
L0403612-03	12IN-CONC-SSW5-S1	BELMONT, MA
L0403612-04	12IN-CONC-BOT4-S1	BELMONT, MA
L0403612-05	12IN-CONC-NSW4-S1	BELMONT, MA
L0403612-06	BG4-S1	BELMONT, MA
L0403612-07	BG6-S1	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403612

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0403612-01
12IN-CONC-BOT5-S1
Sample Matrix: SOIL

Date Collected: 12-APR-2004 09:45
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86.	%	0.10	30 2540G		0413 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-01
12IN-CONC-BOT5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0413 14:04	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.25
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.25
C9-C10 Aromatics	ND	mg/kg	2.25
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.25
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.25
Benzene	ND	mg/kg	0.112
Toluene	ND	mg/kg	0.112
Ethylbenzene	ND	mg/kg	0.112
p/m-Xylene	ND	mg/kg	0.112
o-Xylene	ND	mg/kg	0.112
Methyl tert butyl ether	ND	mg/kg	0.225
Naphthalene	ND	mg/kg	1.12

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	115.	%	70-130
2,5-Dibromotoluene-FID	110.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-01
12IN-CONC-BOT5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 19:30	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.6
C19-C36 Aliphatics	ND	mg/kg	11.6
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.6
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.6
Naphthalene	ND	mg/kg	0.581
2-Methylnaphthalene	ND	mg/kg	0.581
Acenaphthylene	ND	mg/kg	0.581
Acenaphthene	ND	mg/kg	0.581
Fluorene	ND	mg/kg	0.581
Phenanthrene	ND	mg/kg	0.581
Anthracene	ND	mg/kg	0.581
Fluoranthene	ND	mg/kg	0.581
Pyrene	ND	mg/kg	0.581
Benzo(a)anthracene	ND	mg/kg	0.581
Chrysene	ND	mg/kg	0.581
Benzo(b)fluoranthene	ND	mg/kg	0.581
Benzo(k)fluoranthene	ND	mg/kg	0.581
Benzo(a)pyrene	ND	mg/kg	0.581
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.581
Dibenzo(a,h)anthracene	ND	mg/kg	0.581
Benzo(g,h,i)perylene	ND	mg/kg	0.581

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	48.0	%	40-140
o-Terphenyl	70.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	61.0	%	40-140

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: L0403612-02
12IN-CONC-NSW5-S1
Sample Matrix: SOIL

Date Collected: 12-APR-2004 09:45
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83.	%	0.10	30 2540G		0413 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-02
12IN-CONC-NSW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0413 14:55	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.24
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.24
C9-C10 Aromatics	ND	mg/kg	2.24
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.24
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.24
Benzene	ND	mg/kg	0.112
Toluene	ND	mg/kg	0.112
Ethylbenzene	ND	mg/kg	0.112
p/m-Xylene	ND	mg/kg	0.112
o-Xylene	ND	mg/kg	0.112
Methyl tert butyl ether	ND	mg/kg	0.224
Naphthalene	ND	mg/kg	1.12

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	110.	%	70-130
2,5-Dibromotoluene-FID	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: L0403612-02
12IN-CONC-NSW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 20:19	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.0
C19-C36 Aliphatics	ND	mg/kg	12.0
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.0
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.0
Naphthalene	ND	mg/kg	0.602
2-Methylnaphthalene	ND	mg/kg	0.602
Acenaphthylene	ND	mg/kg	0.602
Acenaphthene	ND	mg/kg	0.602
Fluorene	ND	mg/kg	0.602
Phenanthrene	ND	mg/kg	0.602
Anthracene	ND	mg/kg	0.602
Fluoranthene	ND	mg/kg	0.602
Pyrene	ND	mg/kg	0.602
Benzo(a)anthracene	ND	mg/kg	0.602
Chrysene	ND	mg/kg	0.602
Benzo(b)fluoranthene	ND	mg/kg	0.602
Benzo(k)fluoranthene	ND	mg/kg	0.602
Benzo(a)pyrene	ND	mg/kg	0.602
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.602
Dibenzo(a,h)anthracene	ND	mg/kg	0.602
Benzo(g,h,i)perylene	ND	mg/kg	0.602

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	71.0	%	40-140
2-Fluorobiphenyl	73.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0403612-03
12IN-CONC-SSW5-S1
Sample Matrix: SOIL

Date Collected: 12-APR-2004 09:45
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	84.	%	0.10	30 2540G		0413 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-03
12IN-CONC-SSW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0413 15:46	PS

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.20
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.20
C9-C10 Aromatics	ND	mg/kg	2.20
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.20
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.20
Benzene	ND	mg/kg	0.110
Toluene	ND	mg/kg	0.110
Ethylbenzene	ND	mg/kg	0.110
p/m-Xylene	ND	mg/kg	0.110
o-Xylene	ND	mg/kg	0.110
Methyl tert butyl ether	ND	mg/kg	0.220
Naphthalene	ND	mg/kg	1.10

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	116.	%	70-130
2,5-Dibromotoluene-FID	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: L0403612-03
12IN-CONC-SSW5-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 21:08	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	11.9
C19-C36 Aliphatics	ND	mg/kg	11.9
C11-C22 Aromatics, Unadjusted	ND	mg/kg	11.9
C11-C22 Aromatics, Adjusted	ND	mg/kg	11.9
Naphthalene	ND	mg/kg	0.595
2-Methylnaphthalene	ND	mg/kg	0.595
Acenaphthylene	ND	mg/kg	0.595
Acenaphthene	ND	mg/kg	0.595
Fluorene	ND	mg/kg	0.595
Phenanthrene	ND	mg/kg	0.595
Anthracene	ND	mg/kg	0.595
Fluoranthene	ND	mg/kg	0.595
Pyrene	ND	mg/kg	0.595
Benzo(a)anthracene	ND	mg/kg	0.595
Chrysene	ND	mg/kg	0.595
Benzo(b)fluoranthene	ND	mg/kg	0.595
Benzo(k)fluoranthene	ND	mg/kg	0.595
Benzo(a)pyrene	ND	mg/kg	0.595
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.595
Dibenzo(a,h)anthracene	ND	mg/kg	0.595
Benzo(g,h,i)perylene	ND	mg/kg	0.595

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	51.0	%	40-140
o-Terphenyl	71.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0403612-04
12IN-CONC-BOT4-S1
Sample Matrix: SOIL

Date Collected: 09-APR-2004 13:15
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81.	%	0.10	30 2540G		0413 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-04
12IN-CONC-BOT4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0413 16:36	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.19
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.19
C9-C10 Aromatics	ND	mg/kg	3.19
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.19
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.19
Benzene	ND	mg/kg	0.160
Toluene	ND	mg/kg	0.160
Ethylbenzene	ND	mg/kg	0.160
p/m-Xylene	ND	mg/kg	0.160
o-Xylene	ND	mg/kg	0.160
Methyl tert butyl ether	ND	mg/kg	0.319
Naphthalene	ND	mg/kg	1.60

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	117.	%	70-130
2,5-Dibromotoluene-FID	117.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-04
12IN-CONC-BOT4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 21:57	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.3
C19-C36 Aliphatics	ND	mg/kg	12.3
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.3
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.3
Naphthalene	ND	mg/kg	0.617
2-Methylnaphthalene	ND	mg/kg	0.617
Acenaphthylene	ND	mg/kg	0.617
Acenaphthene	ND	mg/kg	0.617
Fluorene	ND	mg/kg	0.617
Phenanthrene	ND	mg/kg	0.617
Anthracene	ND	mg/kg	0.617
Fluoranthene	ND	mg/kg	0.617
Pyrene	ND	mg/kg	0.617
Benzo(a)anthracene	ND	mg/kg	0.617
Chrysene	ND	mg/kg	0.617
Benzo(b)fluoranthene	ND	mg/kg	0.617
Benzo(k)fluoranthene	ND	mg/kg	0.617
Benzo(a)pyrene	ND	mg/kg	0.617
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.617
Dibenzo(a,h)anthracene	ND	mg/kg	0.617
Benzo(g,h,i)perylene	ND	mg/kg	0.617

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	47.0	%	40-140
o-Terphenyl	64.0	%	40-140
2-Fluorobiphenyl	70.0	%	40-140
2-Bromonaphthalene	62.0	%	40-140

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: L0403612-05
12IN-CONC-NSW4-S1
Sample Matrix: SOIL

Date Collected: 09-APR-2004 13:15
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80.	%	0.10	30 2540G		0413 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-05
12IN-CONC-NSW4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0413 17:27	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.93
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.93
C9-C10 Aromatics	ND	mg/kg	2.93
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.93
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.93
Benzene	ND	mg/kg	0.146
Toluene	ND	mg/kg	0.146
Ethylbenzene	ND	mg/kg	0.146
p/m-Xylene	ND	mg/kg	0.146
o-Xylene	ND	mg/kg	0.146
Methyl tert butyl ether	ND	mg/kg	0.293
Naphthalene	ND	mg/kg	1.46

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	102.	%	70-130
2,5-Dibromotoluene-FID	99.0	%	70-130

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

Laboratory Sample Number: L0403612-05
12IN-CONC-NSW4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 22:46	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.5
C19-C36 Aliphatics	ND	mg/kg	12.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.5
Naphthalene	ND	mg/kg	0.625
2-Methylnaphthalene	ND	mg/kg	0.625
Acenaphthylene	ND	mg/kg	0.625
Acenaphthene	ND	mg/kg	0.625
Fluorene	ND	mg/kg	0.625
Phenanthrene	ND	mg/kg	0.625
Anthracene	ND	mg/kg	0.625
Fluoranthene	ND	mg/kg	0.625
Pyrene	ND	mg/kg	0.625
Benzo(a)anthracene	ND	mg/kg	0.625
Chrysene	ND	mg/kg	0.625
Benzo(b)fluoranthene	ND	mg/kg	0.625
Benzo(k)fluoranthene	ND	mg/kg	0.625
Benzo(a)pyrene	ND	mg/kg	0.625
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.625
Dibenzo(a,h)anthracene	ND	mg/kg	0.625
Benzo(g,h,i)perylene	ND	mg/kg	0.625

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	62.0	%	40-140
2-Fluorobiphenyl	68.0	%	40-140
2-Bromonaphthalene	67.0	%	40-140

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: L0403612-06
BG4-S1
Sample Matrix: SOIL

Date Collected: 09-APR-2004 14:15
Date Received : 12-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	70.	%	0.10	30	2540G		0413 10:08	JC
Hydrocarbon Scan by GC 8100M				1	8100M	0413 11:00	0414 02:17	MM
Mineral Spirits	ND	mg/kg	140					
Gasoline	ND	mg/kg	140					
Fuel Oil #2/Diesel	ND	mg/kg	140					
Fuel Oil #4	ND	mg/kg	140					
Fuel Oil #6	ND	mg/kg	140					
Motor Oil	ND	mg/kg	140					
Kerosene	ND	mg/kg	140					
Transformer Oil	ND	mg/kg	140					
Unknown Hydrocarbon	ND	mg/kg	140					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	56.0	%	40-140					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403612-06
BG4-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0414 11:08	PS

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Were samples received in methanol? Covering the Soil
Methanol ratio: 1:1 +/- 25%
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	3.79
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	3.79
C9-C10 Aromatics	ND	mg/kg	3.79
C5-C8 Aliphatics, Adjusted	ND	mg/kg	3.79
C9-C12 Aliphatics, Adjusted	ND	mg/kg	3.79
Benzene	ND	mg/kg	0.190
Toluene	ND	mg/kg	0.190
Ethylbenzene	ND	mg/kg	0.190
p/m-Xylene	ND	mg/kg	0.190
o-Xylene	ND	mg/kg	0.190
Methyl tert butyl ether	ND	mg/kg	0.379
Naphthalene	ND	mg/kg	1.90

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	112.	%	70-130
2,5-Dibromotoluene-FID	119.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403612

Parameter	% Recovery	QC Criteria
Hydrocarbon Scan by GC 8100M LCS for sample(s) 06-07 (WG167611)		
Petroleum Spike	69	40-140
Surrogate(s)		
o-Terphenyl	106	40-140
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-07 (WG167508)		
Benzene	116	70-130
Toluene	104	70-130
Ethylbenzene	118	70-130
p/m-Xylene	109	70-130
o-Xylene	107	70-130
Methyl tert butyl ether	102	70-130
Naphthalene	113	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	111	70-130
2,5-Dibromotoluene-FID	111	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-07 (WG167587)		
Naphthalene	45	40-140
Acenaphthene	51	40-140
Anthracene	70	40-140
Pyrene	79	40-140
Chrysene	80	40-140
Nonane (C9)	51	40-140
Tetradecane (C14)	59	40-140
Nonadecane (C19)	81	40-140
Eicosane (C20)	80	40-140
Octacosane (C28)	79	40-140
Surrogate(s)		
Chloro-Octadecane	55	40-140
o-Terphenyl	81	40-140
2-Fluorobiphenyl	67	40-140
2-Bromonaphthalene	50	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403612

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 06-07 (WG167611-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0413 11:00	0413 17:51	MM
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	83.0	%	40-140				
Blank Analysis for sample(s) 01-05 (WG167508-5)							
Volatile Petroleum Hydrocarbons				47 98-1		0413 08:29	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	116.	%	70-130				
2,5-Dibromotoluene-FID	110.	%	70-130				
Blank Analysis for sample(s) 06-07 (WG167508-6)							
Volatile Petroleum Hydrocarbons				47 98-1		0414 08:47	PS
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403612

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 06-07 (WG167508-6)							
Volatile Petroleum Hydrocarbons continued				47 98-1		0414 08:47	PS
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	108.	%	70-130				
2,5-Dibromotoluene-FID	119.	%	70-130				
Blank Analysis for sample(s) 01-07 (WG167587-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0412 21:15	0413 17:03	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	61.0	%	40-140				
o-Terphenyl	78.0	%	40-140				
2-Fluorobiphenyl	73.0	%	40-140				
2-Bromonaphthalene	65.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403612

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
L0403612-01A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-01B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0403612-02A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-02B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0403612-03A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-03B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0403612-04A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-04B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0403612-05A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-05B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TS
L0403612-06A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-06B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TPH-8100, TS
L0403612-07A	Vial MeOH preserved	A	N/A	2.2 C	Y	Absent	VPH-DELUX
L0403612-07B	Amber 250ml unpreserved	A	N/A	2.2 C	Y	Absent	EPH-DELUX, TPH-8100, TS

Container Comments

Container ID	Comments

CHAIN OF CUSTODY RECORD

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO. 30660-000
PROJECT NAME Rumford School
H&A CONTACT Steve Pomeroy

LABORATORY Alpha
ADDRESS Westborough, MA
CONTACT Kate O'Brien

DELIVERY DATE 4/12/04
TURNAROUND TIME 3 day
PROJECT MANAGER J. Mahoney

Sample No.	Date	Time	Depth	Type	Analysis Requested: VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH (Full Suite C-ranges only)	EPH (Full Suite C-ranges only)	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
12 in conc-Bot S-1	4/12/04	945	F	Soil					X	X							2
12 in conc-NSW S-1	4/12/04	945	G-8						X	X							2
12 in conc-SSW S-1	4/12/04	945	G-8						X	X							2
12 in conc-Bot A-S1	4/12/04	1315	F						X	X							2
12 in conc-NSW A-S1	4/12/04	1315	G-8						X	X							2
BG4-S1	4/12/04	1415	0.5-1						X	X	X						2
BG6-S1	4/12/04	1445	0.5-1						X	X	X						2

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH/VPH Carbon ranges and targets TPH by GC/FID

Sampled and Relinquished by	Received by
Sign	Sign
Print M. Cronan	Print Mark Dibattista
Firm Haley & Aldrich	Firm H&A
Date 4/12/04 Time 1530	Date 4/12/04 Time 1530
Relinquished by	**Received by**
Sign	Sign
Print Mark Dibattista	Print
Firm H&A	Firm
Date 4/12/04 Time 1600	Date 4/12/04 Time 1600
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date 4/12 Time 1730	Date 4/12 Time 1730

	LIQUID	SOLID
VOA Vial		X
Amber Glass		X X
Plastic Bottle		
Clear Glass		
Preservative		K/G A A
Volume		40ml 8oz 4oz

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCl	H Water/NaHSO4 (circle)

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

- ___ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
- ___ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
- ___ This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.
- ___ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☒ RC-S1	☐ S1	☐ GW1
☐ RC-S2	☐ S2	☐ GW2
☐ RC-GW1	☐ S3	☐ GW3
☐ RC-GW2		

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Laboratory Job Number: L0403391

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Date Received: 07-APR-2004

Attn: Mr. Steve Provencal
Date Reported: 14-APR-2004

Project Number: 30660-000
Delivery Method: Alpha

Site: BURBANK SCHOOL

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set?	YES
B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	YES
C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	YES
D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	NA

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved?	NO
F. Were results for all analyte-list compounds/elements for the specified method(s) reported?	NO

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

ALPHA ANALYTICAL LABORATORIES

Laboratory Job Number: L0403391
Date Reported: 14-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403391-01	UST-STKPL6-S4	BELMONT, MA
L0403391-02	UST-STKPL6-S5	BELMONT, MA
L0403391-03	UST-STKPL6-S6	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403391

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of SemiVolatile Organics by method 8270C and for the analysis of PCB by method 8082.

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.

SemiVolatile Organics

The RCS-1 limit was not achieved for 3,3'-Dichlorobenzidine.

Volatile Organics

In reference to question E, the LCS % recovery for Dichlorodifluoromethane (146%), a difficult analyte, is above the acceptance criteria for the method.

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

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

Laboratory Sample Number: L0403391-01
UST-STKPL6-S4
Sample Matrix: SOIL

Date Collected: 07-APR-2004 14:50
Date Received : 07-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	88.	%	0.10	30 2540G		0409 12:45	JC
Hydrocarbon Scan by GC 8100M				1 8100M	0412 13:30	0413 12:51	JB
Mineral Spirits	ND	mg/kg	110				
Gasoline	ND	mg/kg	110				
Fuel Oil #2/Diesel	ND	mg/kg	110				
Fuel Oil #4	ND	mg/kg	110				
Fuel Oil #6	ND	mg/kg	110				
Motor Oil	ND	mg/kg	110				
Kerosene	ND	mg/kg	110				
Transformer Oil	ND	mg/kg	110				
Unknown Hydrocarbon	ND	mg/kg	110				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	48.0	%	40-140				

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: L0403391-02
UST-STKPL6-S5
Sample Matrix: SOIL

Date Collected: 07-APR-2004 14:55
Date Received : 07-APR-2004
Date Reported : 14-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	86%	%	0.10	30 2540G		0409 12:45	JC
Hydrocarbon Scan by GC 8100M				1 8100M	0413 11:00	0414 10:48	MM
Mineral Spirits	ND	mg/kg	120				
Gasoline	ND	mg/kg	120				
Fuel Oil #2/Diesel	ND	mg/kg	120				
Fuel Oil #4	ND	mg/kg	120				
Fuel Oil #6	ND	mg/kg	120				
Motor Oil	ND	mg/kg	120				
Kerosene	ND	mg/kg	120				
Transformer Oil	ND	mg/kg	120				
Unknown Hydrocarbon	ND	mg/kg	120				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	72.0	%	40-140				

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: L0403391-03 | **Date Collected:** 07-APR-2004 14:30
UST-STKPL6-S6 | **Date Received :** 07-APR-2004
Sample Matrix: SOIL | **Date Reported :** 14-APR-2004

Condition of Sample: Satisfactory | **Field Prep:** None

Number & Type of Containers: 2-Amber,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	84.	%	0.10	30	2540G		0409 12:45	JC
pH	8.3	SU	-	1	9045C		0407 23:10	HG
Flash Point	>150	deg F	70	1	1010		0409 10:40	ST
Cyanide, Reactive	ND	mg/kg	1.0	1	7.3		0408 11:00	JT
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0408 11:00	JT
Total Metals				1	3051			
Arsenic, Total	4.6	mg/kg	0.47	54	6010B	0408 16:00	0409 13:14	RW
Barium, Total	44.	mg/kg	0.47	54	6010B	0408 16:00	0409 13:14	RW
Cadmium, Total	ND	mg/kg	0.47	54	6010B	0408 16:00	0409 13:14	RW
Chromium, Total	23.	mg/kg	0.47	54	6010B	0408 16:00	0409 13:14	RW
Lead, Total	11.	mg/kg	2.4	54	6010B	0408 16:00	0409 13:14	RW
Mercury, Total	ND	mg/kg	0.08	54	7471A	0408 17:45	0409 13:28	DM
Selenium, Total	ND	mg/kg	0.95	54	6010B	0408 16:00	0409 13:14	RW
Silver, Total	ND	mg/kg	0.47	54	6010B	0408 16:00	0409 13:14	RW
Volatile Organics by MCP 8260B/5035-High				54	8260B		0409 18:11	BT
Methylene chloride	ND	ug/kg	680					
1,1-Dichloroethane	ND	ug/kg	100					
Chloroform	ND	ug/kg	100					
Carbon tetrachloride	ND	ug/kg	68.					
1,2-Dichloropropane	ND	ug/kg	240					
Dibromochloromethane	ND	ug/kg	68.					
1,1,2-Trichloroethane	ND	ug/kg	100					
Tetrachloroethene	ND	ug/kg	68.					
Chlorobenzene	ND	ug/kg	68.					
Trichlorofluoromethane	ND	ug/kg	340					
1,2-Dichloroethane	ND	ug/kg	68.					
1,1,1-Trichloroethane	ND	ug/kg	68.					
Bromodichloromethane	ND	ug/kg	68.					
trans-1,3-Dichloropropene	ND	ug/kg	68.					
cis-1,3-Dichloropropene	ND	ug/kg	68.					
1,1-Dichloropropene	ND	ug/kg	340					
Bromoform	ND	ug/kg	270					

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403391-03
UST-STKPL6-S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0409 18:11	BT
1,1,2,2-Tetrachloroethane	ND	ug/kg	68.				
Benzene	ND	ug/kg	68.				
Toluene	ND	ug/kg	100				
Ethylbenzene	ND	ug/kg	68.				
Chloromethane	ND	ug/kg	340				
Bromomethane	ND	ug/kg	140				
Vinyl chloride	ND	ug/kg	140				
Chloroethane	ND	ug/kg	140				
1,1-Dichloroethene	ND	ug/kg	68.				
trans-1,2-Dichloroethene	ND	ug/kg	100				
Trichloroethene	ND	ug/kg	68.				
1,2-Dichlorobenzene	ND	ug/kg	340				
1,3-Dichlorobenzene	ND	ug/kg	340				
1,4-Dichlorobenzene	ND	ug/kg	340				
Methyl tert butyl ether	ND	ug/kg	140				
p/m-Xylene	ND	ug/kg	68.				
o-Xylene	ND	ug/kg	68.				
cis-1,2-Dichloroethene	ND	ug/kg	68.				
Dibromomethane	ND	ug/kg	680				
1,2,3-Trichloropropane	ND	ug/kg	680				
Styrene	ND	ug/kg	68.				
Dichlorodifluoromethane	ND	ug/kg	680				
Acetone	ND	ug/kg	680				
Carbon disulfide	ND	ug/kg	680				
2-Butanone	ND	ug/kg	680				
4-Methyl-2-pentanone	ND	ug/kg	680				
2-Hexanone	ND	ug/kg	680				
Bromochloromethane	ND	ug/kg	340				
Tetrahydrofuran	ND	ug/kg	1400				
2,2-Dichloropropane	ND	ug/kg	340				
1,2-Dibromoethane	ND	ug/kg	270				
1,3-Dichloropropane	ND	ug/kg	340				
1,1,1,2-Tetrachloroethane	ND	ug/kg	68.				
Bromobenzene	ND	ug/kg	340				
n-Butylbenzene	ND	ug/kg	68.				
sec-Butylbenzene	ND	ug/kg	68.				
tert-Butylbenzene	ND	ug/kg	340				
o-Chlorotoluene	ND	ug/kg	340				
p-Chlorotoluene	ND	ug/kg	340				
1,2-Dibromo-3-chloropropane	ND	ug/kg	340				
Hexachlorobutadiene	ND	ug/kg	340				
Isopropylbenzene	ND	ug/kg	68.				
p-Isopropyltoluene	ND	ug/kg	68.				
Naphthalene	ND	ug/kg	340				
n-Propylbenzene	ND	ug/kg	68.				
1,2,3-Trichlorobenzene	ND	ug/kg	340				
1,2,4-Trichlorobenzene	ND	ug/kg	340				
1,3,5-Trimethylbenzene	ND	ug/kg	340				
1,2,4-Trimethylbenzene	ND	ug/kg	340				

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

Laboratory Sample Number: L0403391-03
UST-STKPL6-S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0409 18:11	BT
Ethyl ether	ND	ug/kg	340				
Isopropyl Ether	ND	ug/kg	270				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	270				
Tertiary-Amyl Methyl Ether	ND	ug/kg	270				
1,4-Dioxane	ND	ug/kg	34000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	80.0	%	70-130				
Toluene-d8	76.0	%	70-130				
4-Bromofluorobenzene	78.0	%	70-130				
Dibromofluoromethane	77.0	%	70-130				
Semivolatile Organics by MCP 8270C				54 8270C	0408 10:15	0409 19:15	HL
Acenaphthene	ND	ug/kg	600				
1,2,4-Trichlorobenzene	ND	ug/kg	600				
Hexachlorobenzene	ND	ug/kg	600				
Bis(2-chloroethyl)ether	ND	ug/kg	600				
2-Chloronaphthalene	ND	ug/kg	600				
1,2-Dichlorobenzene	ND	ug/kg	600				
1,3-Dichlorobenzene	ND	ug/kg	600				
1,4-Dichlorobenzene	ND	ug/kg	600				
3,3'-Dichlorobenzidine	ND	ug/kg	1200				
2,4-Dinitrotoluene	ND	ug/kg	600				
2,6-Dinitrotoluene	ND	ug/kg	600				
Azobenzene	ND	ug/kg	600				
Fluoranthene	ND	ug/kg	600				
4-Bromophenyl phenyl ether	ND	ug/kg	600				
Bis(2-chloroisopropyl)ether	ND	ug/kg	600				
Bis(2-chloroethoxy)methane	ND	ug/kg	600				
Hexachlorobutadiene	ND	ug/kg	1200				
Hexachloroethane	ND	ug/kg	600				
Isophorone	ND	ug/kg	600				
Naphthalene	ND	ug/kg	600				
Nitrobenzene	ND	ug/kg	600				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	1200				
Butyl benzyl phthalate	ND	ug/kg	600				
Di-n-butylphthalate	ND	ug/kg	600				
Di-n-octylphthalate	ND	ug/kg	600				
Diethyl phthalate	ND	ug/kg	600				
Dimethyl phthalate	ND	ug/kg	600				
Benzo(a)anthracene	ND	ug/kg	600				
Benzo(a)pyrene	ND	ug/kg	600				
Benzo(b)fluoranthene	ND	ug/kg	600				
Benzo(k)fluoranthene	ND	ug/kg	600				
Chrysene	ND	ug/kg	600				
Acenaphthylene	ND	ug/kg	600				
Anthracene	ND	ug/kg	600				
Benzo(ghi)perylene	ND	ug/kg	600				
Fluorene	ND	ug/kg	600				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403391-03
UST-STKPL6-S6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Semivolatile Organics by MCP 8270C continued				54 8270C	0408 10:15	0409 19:15	HL
Phenanthrene	ND	ug/kg	600				
Dibenzo(a,h)anthracene	ND	ug/kg	600				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	600				
Pyrene	ND	ug/kg	600				
Aniline	ND	ug/kg	1200				
4-Chloroaniline	ND	ug/kg	600				
Dibenzofuran	ND	ug/kg	600				
2-Methylnaphthalene	ND	ug/kg	600				
Acetophenone	ND	ug/kg	2400				
2,4,6-Trichlorophenol	ND	ug/kg	600				
2-Chlorophenol	ND	ug/kg	600				
2,4-Dichlorophenol	ND	ug/kg	1200				
2,4-Dimethylphenol	ND	ug/kg	600				
2-Nitrophenol	ND	ug/kg	2400				
4-Nitrophenol	ND	ug/kg	1200				
2,4-Dinitrophenol	ND	ug/kg	2400				
Pentachlorophenol	ND	ug/kg	2400				
Phenol	ND	ug/kg	830				
2-Methylphenol	ND	ug/kg	710				
3-Methylphenol/4-Methylphenol	ND	ug/kg	710				
2,4,5-Trichlorophenol	ND	ug/kg	600				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	49.0	%	30-130				
Phenol-d6	51.0	%	30-130				
Nitrobenzene-d5	54.0	%	30-130				
2-Fluorobiphenyl	55.0	%	30-130				
2,4,6-Tribromophenol	68.0	%	30-130				
4-Terphenyl-d14	80.0	%	30-130				
Polychlorinated Biphenyls by MCP 8082				54 8082	0408 11:45	0409 12:21	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	60.0	%	30-150				
Decachlorobiphenyl	65.0	%	30-150				
Polychlorinated Biphenyls by MCP 8082				54 8082	0408 11:45	0409 12:21	AK
Aroclor 1221	ND	ug/kg	59.5				
Aroclor 1232	ND	ug/kg	59.5				
Aroclor 1242/1016	ND	ug/kg	59.5				
Aroclor 1248	ND	ug/kg	59.5				
Aroclor 1254	ND	ug/kg	59.5				
Aroclor 1260	ND	ug/kg	59.5				
Aroclor 1262	ND	ug/kg	59.5				
Aroclor 1268	ND	ug/kg	59.5				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	63.0	%	30-150				
Decachlorobiphenyl	69.0	%	30-150				

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403391-03
UST-STKPL6-S6

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Hydrocarbon Scan by GC 8100M				1	8100M	0412 13:30	0413 16:26	JB
Mineral Spirits	ND	mg/kg	120					
Gasoline	ND	mg/kg	120					
Fuel Oil #2/Diesel	ND	mg/kg	120					
Fuel Oil #4	ND	mg/kg	120					
Fuel Oil #6	ND	mg/kg	120					
Motor Oil	ND	mg/kg	120					
Kerosene	ND	mg/kg	120					
Transformer Oil	ND	mg/kg	120					
Unknown Hydrocarbon	ND	mg/kg	120					
Surrogate(s)	Recovery		QC Criteria					
o-Terphenyl	77.0	%	40-140					

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403391

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-03 (L0403415-01, WG167399)					
Solids, Total	85.	84.	%	1	
pH for sample(s) 03 (L0403296-01, WG167195)					
pH	8.1	8.1	SU	0	
Cyanide, Reactive for sample(s) 03 (L0403391-03, WG167329)					
Cyanide, Reactive	ND	ND	mg/kg	NC	
Sulfide, Reactive for sample(s) 03 (L0403391-03, WG167328)					
Sulfide, Reactive	ND	ND	mg/kg	NC	
Hydrocarbon Scan by GC 8100M for sample(s) 01,03 (L0403395-03, WG167294)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	ND	ND	mg/kg	NC	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	79.0	89.0	%	12	40-140
Hydrocarbon Scan by GC 8100M for sample(s) 02 (L0403579-01, WG167611)					
Mineral Spirits	ND	ND	mg/kg	NC	40
Gasoline	ND	ND	mg/kg	NC	40
Fuel Oil #2/Diesel	ND	ND	mg/kg	NC	40
Fuel Oil #4	ND	ND	mg/kg	NC	40
Fuel Oil #6	ND	ND	mg/kg	NC	40
Motor Oil	ND	ND	mg/kg	NC	40
Kerosene	ND	ND	mg/kg	NC	40
Transformer Oil	ND	ND	mg/kg	NC	40
Unknown Hydrocarbon	140	150	mg/kg	7	40
Surrogate(s)	Recovery				QC Criteria
o-Terphenyl	75.0	74.0	%	1	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403391

Parameter	% Recovery	QC Criteria
pH LCS for sample(s) 03 (WG167195)		
pH	100	
Sulfide, Reactive LCS for sample(s) 03 (WG167328)		
Sulfide, Reactive	82	
Total Metals LCS for sample(s) 03 (WG167361)		
Arsenic, Total	95	75-125
Barium, Total	84	75-125
Cadmium, Total	90	75-125
Chromium, Total	88	75-125
Lead, Total	95	75-125
Selenium, Total	95	75-125
Silver, Total	93	75-125
Total Metals LCS for sample(s) 03 (WG167306)		
Mercury, Total	98	75-125
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 03 (WG167272)		
Methylene chloride	96	70-130
1,1-Dichloroethane	100	70-130
Chloroform	94	70-130
Carbon tetrachloride	101	70-130
1,2-Dichloropropane	97	70-130
Dibromochloromethane	98	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	102	70-130
Chlorobenzene	100	70-130
Trichlorofluoromethane	104	70-130
1,2-Dichloroethane	99	70-130
1,1,1-Trichloroethane	104	70-130
Bromodichloromethane	96	70-130
trans-1,3-Dichloropropene	95	70-130
cis-1,3-Dichloropropene	100	70-130
1,1-Dichloropropene	97	70-130
Bromoform	103	70-130
1,1,2,2-Tetrachloroethane	105	70-130
Benzene	100	70-130
Toluene	100	70-130
Ethylbenzene	99	70-130
Chloromethane	116	70-130
Bromomethane	73	70-130
Vinyl chloride	108	70-130
Chloroethane	114	70-130
1,1-Dichloroethene	95	70-130
trans-1,2-Dichloroethene	96	70-130
Trichloroethene	97	70-130
1,2-Dichlorobenzene	100	70-130
1,3-Dichlorobenzene	100	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403391

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by MCP 8260B/5035-High LCS for sample(s) 03 (WG167272)		
1,4-Dichlorobenzene	100	70-130
Methyl tert butyl ether	106	70-130
p/m-Xylene	101	70-130
o-Xylene	99	70-130
cis-1,2-Dichloroethene	99	70-130
Dibromomethane	98	70-130
1,2,3-Trichloropropane	102	70-130
Styrene	97	70-130
Dichlorodifluoromethane	146	70-130
Acetone	110	70-130
Carbon disulfide	98	70-130
2-Butanone	110	70-130
4-Methyl-2-pentanone	107	70-130
2-Hexanone	111	70-130
Bromochloromethane	108	70-130
Tetrahydrofuran	104	70-130
2,2-Dichloropropane	103	70-130
1,2-Dibromoethane	101	70-130
1,3-Dichloropropane	101	70-130
1,1,1,2-Tetrachloroethane	101	70-130
Bromobenzene	99	70-130
n-Butylbenzene	96	70-130
sec-Butylbenzene	103	70-130
tert-Butylbenzene	102	70-130
o-Chlorotoluene	103	70-130
p-Chlorotoluene	102	70-130
1,2-Dibromo-3-chloropropane	103	70-130
Hexachlorobutadiene	101	70-130
Isopropylbenzene	99	70-130
p-Isopropyltoluene	99	70-130
Naphthalene	97	70-130
n-Propylbenzene	103	70-130
1,2,3-Trichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	94	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	100	70-130
Ethyl ether	105	70-130
Isopropyl Ether	97	70-130
Ethyl-Tert-Butyl-Ether	98	70-130
Tertiary-Amyl Methyl Ether	102	70-130
1,4-Dioxane	102	70-130
Surrogate(s)		
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	80	70-130
4-Bromofluorobenzene	81	70-130
Dibromofluoromethane	79	70-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403391

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 03 (WG167290)		
Acenaphthene	81	40-140
1,2,4-Trichlorobenzene	51	40-140
Hexachlorobenzene	89	40-140
Bis(2-chloroethyl)ether	50	40-140
2-Chloronaphthalene	69	40-140
1,2-Dichlorobenzene	48	40-140
1,3-Dichlorobenzene	47	40-140
1,4-Dichlorobenzene	49	40-140
3,3'-Dichlorobenzidine	75	40-140
2,4-Dinitrotoluene	100	40-140
2,6-Dinitrotoluene	100	40-140
Azobenzene	91	40-140
Fluoranthene	99	40-140
4-Bromophenyl phenyl ether	91	40-140
Bis(2-chloroisopropyl)ether	46	40-140
Bis(2-chloroethoxy)methane	55	40-140
Hexachlorobutadiene	48	40-140
Hexachloroethane	46	40-140
Isophorone	66	40-140
Naphthalene	52	40-140
Nitrobenzene	52	40-140
Bis(2-Ethylhexyl)phthalate	120	40-140
Butyl benzyl phthalate	110	40-140
Di-n-butylphthalate	110	40-140
Di-n-octylphthalate	110	40-140
Diethyl phthalate	100	40-140
Dimethyl phthalate	97	40-140
Benzo(a)anthracene	100	40-140
Benzo(a)pyrene	96	40-140
Benzo(b)fluoranthene	100	40-140
Benzo(k)fluoranthene	100	40-140
Chrysene	100	40-140
Acenaphthylene	82	40-140
Anthracene	95	40-140
Benzo(ghi)perylene	95	40-140
Fluorene	94	40-140
Phenanthrene	93	40-140
Dibenzo(a,h)anthracene	100	40-140
Indeno(1,2,3-cd)Pyrene	98	40-140
Pyrene	100	40-140
Aniline	56	40-140
4-Chloroaniline	43	40-140
Dibenzofuran	78	40-140
2-Methylnaphthalene	59	40-140
Acetophenone	54	40-140
2,4,6-Trichlorophenol	85	30-130
2-Chlorophenol	48	30-130
2,4-Dichlorophenol	63	30-130

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403391

Continued

Parameter	% Recovery	QC Criteria
Semivolatile Organics by MCP 8270C LCS for sample(s) 03 (WG167290)		
2,4-Dimethylphenol	59	30-130
2-Nitrophenol	53	30-130
4-Nitrophenol	89	30-130
2,4-Dinitrophenol	99	30-130
Pentachlorophenol	91	30-130
Phenol	50	30-130
2-Methylphenol	50	30-130
3-Methylphenol/4-Methylphenol	54	30-130
2,4,5-Trichlorophenol	89	30-130
Surrogate(s)		
2-Fluorophenol	44	30-130
Phenol-d6	47	30-130
Nitrobenzene-d5	51	30-130
2-Fluorobiphenyl	66	30-130
2,4,6-Tribromophenol	84	30-130
4-Terphenyl-d14	90	30-130
Polychlorinated Biphenyls by MCP 8082 LCS for sample(s) 03 (WG167298)		
Aroclor 1242/1016	60	40-140
Aroclor 1260	63	40-140
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	53	30-150
2,4,5,6-Tetrachloro-m-xylene	53	30-150
Decachlorobiphenyl	59	30-150
Decachlorobiphenyl	56	30-150
Hydrocarbon Scan by GC 8100M LCS for sample(s) 01,03 (WG167294)		
Petroleum Spike	77	40-140
Surrogate(s)		
o-Terphenyl	96	40-140
Hydrocarbon Scan by GC 8100M LCS for sample(s) 02 (WG167611)		
Petroleum Spike	69	40-140
Surrogate(s)		
o-Terphenyl	106	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403391

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03 (WG167329-1)								
Cyanide, Reactive	ND	mg/kg	1.0	1	7.3		0408 11:00	JT
Blank Analysis for sample(s) 03 (WG167328-1)								
Sulfide, Reactive	ND	mg/kg	0.50	1	7.3		0408 11:00	JT
Blank Analysis for sample(s) 03 (WG167361-1)								
Total Metals				1	3051			
Arsenic, Total	ND	mg/kg	0.40	54	6010B	0408 16:00	0409 11:37	RW
Barium, Total	ND	mg/kg	0.40	54	6010B	0408 16:00	0409 11:37	RW
Cadmium, Total	ND	mg/kg	0.40	54	6010B	0408 16:00	0409 11:37	RW
Chromium, Total	ND	mg/kg	0.40	54	6010B	0408 16:00	0409 11:37	RW
Lead, Total	ND	mg/kg	2.0	54	6010B	0408 16:00	0409 11:37	RW
Selenium, Total	ND	mg/kg	0.80	54	6010B	0408 16:00	0409 11:37	RW
Silver, Total	ND	mg/kg	0.40	54	6010B	0408 16:00	0409 11:37	RW
Blank Analysis for sample(s) 03 (WG167306-2)								
Total Metals								
Mercury, Total	ND	mg/kg	0.08	54	7471A	0408 17:45	0409 13:20	DM
Blank Analysis for sample(s) 03 (WG167272-6)								
Volatile Organics by MCP 8260B/5035-High				54	8260B		0409 15:13	BT
Methylene chloride	ND	ug/kg	500					
1,1-Dichloroethane	ND	ug/kg	75.					
Chloroform	ND	ug/kg	75.					
Carbon tetrachloride	ND	ug/kg	50.					
1,2-Dichloropropane	ND	ug/kg	180					
Dibromochloromethane	ND	ug/kg	50.					
1,1,2-Trichloroethane	ND	ug/kg	75.					
Tetrachloroethene	ND	ug/kg	50.					
Chlorobenzene	ND	ug/kg	50.					
Trichlorofluoromethane	ND	ug/kg	250					
1,2-Dichloroethane	ND	ug/kg	50.					
1,1,1-Trichloroethane	ND	ug/kg	50.					
Bromodichloromethane	ND	ug/kg	50.					
trans-1,3-Dichloropropene	ND	ug/kg	50.					
cis-1,3-Dichloropropene	ND	ug/kg	50.					
1,1-Dichloropropene	ND	ug/kg	250					
Bromoform	ND	ug/kg	200					
1,1,2,2-Tetrachloroethane	ND	ug/kg	50.					
Benzene	ND	ug/kg	50.					
Toluene	ND	ug/kg	75.					
Ethylbenzene	ND	ug/kg	50.					
Chloromethane	ND	ug/kg	250					
Bromomethane	ND	ug/kg	100					

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403391

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03 (WG167272-6)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0409 15:13	BT
Vinyl chloride	ND	ug/kg	100				
Chloroethane	ND	ug/kg	100				
1,1-Dichloroethene	ND	ug/kg	50.				
trans-1,2-Dichloroethene	ND	ug/kg	75.				
Trichloroethene	ND	ug/kg	50.				
1,2-Dichlorobenzene	ND	ug/kg	250				
1,3-Dichlorobenzene	ND	ug/kg	250				
1,4-Dichlorobenzene	ND	ug/kg	250				
Methyl tert butyl ether	ND	ug/kg	100				
p/m-Xylene	ND	ug/kg	50.				
o-Xylene	ND	ug/kg	50.				
cis-1,2-Dichloroethene	ND	ug/kg	50.				
Dibromomethane	ND	ug/kg	500				
1,2,3-Trichloropropane	ND	ug/kg	500				
Styrene	ND	ug/kg	50.				
Dichlorodifluoromethane	ND	ug/kg	500				
Acetone	ND	ug/kg	500				
Carbon disulfide	ND	ug/kg	500				
2-Butanone	ND	ug/kg	500				
4-Methyl-2-pentanone	ND	ug/kg	500				
2-Hexanone	ND	ug/kg	500				
Bromochloromethane	ND	ug/kg	250				
Tetrahydrofuran	ND	ug/kg	1000				
2,2-Dichloropropane	ND	ug/kg	250				
1,2-Dibromoethane	ND	ug/kg	200				
1,3-Dichloropropane	ND	ug/kg	250				
1,1,1,2-Tetrachloroethane	ND	ug/kg	50.				
Bromobenzene	ND	ug/kg	250				
n-Butylbenzene	ND	ug/kg	50.				
sec-Butylbenzene	ND	ug/kg	50.				
tert-Butylbenzene	ND	ug/kg	250				
o-Chlorotoluene	ND	ug/kg	250				
p-Chlorotoluene	ND	ug/kg	250				
1,2-Dibromo-3-chloropropane	ND	ug/kg	250				
Hexachlorobutadiene	ND	ug/kg	250				
Isopropylbenzene	ND	ug/kg	50.				
p-Isopropyltoluene	ND	ug/kg	50.				
Naphthalene	ND	ug/kg	250				
n-Propylbenzene	ND	ug/kg	50.				
1,2,3-Trichlorobenzene	ND	ug/kg	250				
1,2,4-Trichlorobenzene	ND	ug/kg	250				
1,3,5-Trimethylbenzene	ND	ug/kg	250				
1,2,4-Trimethylbenzene	ND	ug/kg	250				
Ethyl ether	ND	ug/kg	250				
Isopropyl Ether	ND	ug/kg	200				
Ethyl-Tert-Butyl-Ether	ND	ug/kg	200				
Tertiary-Amyl Methyl Ether	ND	ug/kg	200				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403391

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03 (WG167272-6)							
Volatile Organics by MCP 8260B/5035-High continued				54 8260B		0409 15:13	BT
1,4-Dioxane	ND	ug/kg	25000				
Surrogate(s)	Recovery		QC Criteria				
1,2-Dichloroethane-d4	82.0	%	70-130				
Toluene-d8	78.0	%	70-130				
4-Bromofluorobenzene	80.0	%	70-130				
Dibromofluoromethane	77.0	%	70-130				
Blank Analysis for sample(s) 03 (WG167290-1)							
Semivolatile Organics by MCP 8270C				54 8270C	0408 10:15	0409 17:41	HL
Acenaphthene	ND	ug/kg	500				
1,2,4-Trichlorobenzene	ND	ug/kg	500				
Hexachlorobenzene	ND	ug/kg	500				
Bis(2-chloroethyl)ether	ND	ug/kg	500				
2-Chloronaphthalene	ND	ug/kg	500				
1,2-Dichlorobenzene	ND	ug/kg	500				
1,3-Dichlorobenzene	ND	ug/kg	500				
1,4-Dichlorobenzene	ND	ug/kg	500				
3,3'-Dichlorobenzidine	ND	ug/kg	1000				
2,4-Dinitrotoluene	ND	ug/kg	500				
2,6-Dinitrotoluene	ND	ug/kg	500				
Azobenzene	ND	ug/kg	500				
Fluoranthene	ND	ug/kg	500				
4-Bromophenyl phenyl ether	ND	ug/kg	500				
Bis(2-chloroisopropyl)ether	ND	ug/kg	500				
Bis(2-chloroethoxy)methane	ND	ug/kg	500				
Hexachlorobutadiene	ND	ug/kg	1000				
Hexachloroethane	ND	ug/kg	500				
Isophorone	ND	ug/kg	500				
Naphthalene	ND	ug/kg	500				
Nitrobenzene	ND	ug/kg	500				
Bis(2-Ethylhexyl)phthalate	ND	ug/kg	1000				
Butyl benzyl phthalate	ND	ug/kg	500				
Di-n-butylphthalate	ND	ug/kg	500				
Di-n-octylphthalate	ND	ug/kg	500				
Diethyl phthalate	ND	ug/kg	500				
Dimethyl phthalate	ND	ug/kg	500				
Benzo(a)anthracene	ND	ug/kg	500				
Benzo(a)pyrene	ND	ug/kg	500				
Benzo(b)fluoranthene	ND	ug/kg	500				
Benzo(k)fluoranthene	ND	ug/kg	500				
Chrysene	ND	ug/kg	500				
Acenaphthylene	ND	ug/kg	500				
Anthracene	ND	ug/kg	500				
Benzo(ghi)perylene	ND	ug/kg	500				
Fluorene	ND	ug/kg	500				
Phenanthrene	ND	ug/kg	500				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403391

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03 (WG167290-1)							
Semivolatile Organics by MCP 8270C continued				54 8270C	0408 10:15	0409 17:41	HL
Dibenzo(a,h)anthracene	ND	ug/kg	500				
Indeno(1,2,3-cd)Pyrene	ND	ug/kg	500				
Pyrene	ND	ug/kg	500				
Aniline	ND	ug/kg	1000				
4-Chloroaniline	ND	ug/kg	500				
Dibenzofuran	ND	ug/kg	500				
2-Methylnaphthalene	ND	ug/kg	500				
Acetophenone	ND	ug/kg	2000				
2,4,6-Trichlorophenol	ND	ug/kg	500				
2-Chlorophenol	ND	ug/kg	500				
2,4-Dichlorophenol	ND	ug/kg	1000				
2,4-Dimethylphenol	ND	ug/kg	500				
2-Nitrophenol	ND	ug/kg	2000				
4-Nitrophenol	ND	ug/kg	1000				
2,4-Dinitrophenol	ND	ug/kg	2000				
Pentachlorophenol	ND	ug/kg	2000				
Phenol	ND	ug/kg	700				
2-Methylphenol	ND	ug/kg	600				
3-Methylphenol/4-Methylphenol	ND	ug/kg	600				
2,4,5-Trichlorophenol	ND	ug/kg	500				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	42.0	%	30-130				
Phenol-d6	44.0	%	30-130				
Nitrobenzene-d5	45.0	%	30-130				
2-Fluorobiphenyl	46.0	%	30-130				
2,4,6-Tribromophenol	63.0	%	30-130				
4-Terphenyl-d14	87.0	%	30-130				
Blank Analysis for sample(s) 03 (WG167298-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0408 11:45	0409 11:25	AK
Aroclor 1221	ND	ug/kg	50.0				
Aroclor 1232	ND	ug/kg	50.0				
Aroclor 1242/1016	ND	ug/kg	50.0				
Aroclor 1248	ND	ug/kg	50.0				
Aroclor 1254	ND	ug/kg	50.0				
Aroclor 1260	ND	ug/kg	50.0				
Aroclor 1262	ND	ug/kg	50.0				
Aroclor 1268	ND	ug/kg	50.0				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	52.0	%	30-150				
Decachlorobiphenyl	75.0	%	30-150				
Blank Analysis for sample(s) 03 (WG167298-1)							
Polychlorinated Biphenyls by MCP 8082				54 8082	0408 11:45	0409 11:25	AK

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403391

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03 (WG167298-1)							
Polychlorinated Biphenyls by MCP 8082 continued				54 8082	0408 11:45	0409 11:25	AK
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	51.0	%	30-150				
Decachlorobiphenyl	68.0	%	30-150				
Blank Analysis for sample(s) 01,03 (WG167294-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0412 13:30	0413 10:47	JB
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	75.0	%	40-140				
Blank Analysis for sample(s) 02 (WG167611-1)							
Hydrocarbon Scan by GC 8100M				1 8100M	0413 11:00	0413 17:51	MM
Mineral Spirits	ND	mg/kg	100				
Gasoline	ND	mg/kg	100				
Fuel Oil #2/Diesel	ND	mg/kg	100				
Fuel Oil #4	ND	mg/kg	100				
Fuel Oil #6	ND	mg/kg	100				
Motor Oil	ND	mg/kg	100				
Kerosene	ND	mg/kg	100				
Transformer Oil	ND	mg/kg	100				
Unknown Hydrocarbon	ND	mg/kg	100				
Surrogate(s)	Recovery		QC Criteria				
o-Terphenyl	83.0	%	40-140				

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

54. Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Final Methods. May 2003.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403391

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
L0403391-01A	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	TPH-8100, TS
L0403391-02A	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	TPH-8100, TS
L0403391-03A	Vial MeOH preserved	A	N/A	2.8 C	Y	Absent	MCP-8260H
L0403391-03B	Vial NaHSO4 preserved	A	N/A	2.8 C	Y	Absent	MCP-8260H
L0403391-03C	Vial NaHSO4 preserved	A	N/A	2.8 C	Y	Absent	MCP-8260H
L0403391-03D	Vial NaHSO4 preserved	A	N/A	2.8 C	Y	Absent	MCP-8260H
L0403391-03E	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	FLASH, MCP-8082, MCP-8270, PH-9045, REACTCN, REACTS, TPH-8100, TS
L0403391-03F	Amber 250ml unpreserved	A	N/A	2.8 C	Y	Absent	AG-TI, AS-TI, BA-TI, CD-TI, CR-TI, HG-T, PB-TI, PREPT, SE-TI

Container Comments

Container ID	Comments
L0403391-03F	This container has not been properly returned to CUSTODY! It was last assigned to JTRAN for department WET CHEMISTRY on 04/08/04 10:08 .

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30660-000
PROJECT NAME Burbank School
H&A CONTACT Steve Provencal

LABORATORY Arena
ADDRESS
CONTACT

DELIVERY DATE 04/07/04
TURNAROUND TIME 3 Days
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides (PCBs)	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify) (1)	TCLP (specify)	Reactivity Ignitability Corrosivity	(2)	(3)		Number of Containers
UST-STRPLE 54	4/7/04	1450	–	Soil							X						1
UST-STRPLE 55	↓	1455	–	↓							X						1
UST-STRPLE 56	↓	1430	–	↓	X			X			X		X	X	X		6

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.
(1) TPH by GC-FID Meth 8100
(2) SVOCs
(3) RCRA (8) Metals

Sampled and Relinquished by	Received by
Sign Todd R Burbank	Sign Desmond Crawford
Print Todd Burbank	Print Desmond Crawford
Firm H&A	Firm H&A
Date 4/7/04 Time 1540	Date 04/07/04 Time 15:40
Relinquished by	**Received by**
Sign Desmond Crawford	Sign [illegible]
Print Desmond Crawford	Print [illegible]
Firm H&A	Firm [illegible]
Date 04/07/04 Time 17:00	Date 4/7/04 Time 1700
Relinquished by	**Received by**
Sign [illegible]	Sign [illegible]
Print	Print
Firm	Firm
Date 4/7 Time 1920	Date 4/7 Time 1920

	VOA	ABNs	MCP Metals	Pesticides (PCBs)	VPH	EPH	TPH (1)	TCLP	Reactivity	(2)	(3)		
LIQUID													VOA Vial
													Amber Glass
													Plastic Bottle
													Preservative
													Volume
SOLID	X												VOA Vial
				X			X		X	X	X		Amber Glass
													Clear Glass
	C/H			A			A		A	A	A		Preservative
	[illegible]			2oz			8oz		8oz	8oz	8oz		Volume

Sampling Comments
* Please fax results to Mike Crowe @ 617 886-7727

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water (NaHSO4) (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
✓ The required minimum field QC samples as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) ________ includes ✓ does not include samples defined as Drinking Water Samples.
NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate Laboratory should (specify if applicable) ________ analyze ________ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives
- ☐ RC-S1 ☐ S1 ☐ GW1
- ☐ RC-S2 ☐ S2 ☐ GW2
- ☐ RC-GW1 ☐ S3 ☐ GW3
- ☐ RC-GW2

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Laboratory Job Number: L0403638

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Date Received: 13-APR-2004

Attn: Mr. Steve Provencal
Date Reported: 15-APR-2004

Project Number: 30660-000
Delivery Method: Alpha

Site: BURBANK SCHOOL

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?	YES

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?	YES

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: L0403638
Date Reported: 15-APR-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403638-01	12IN-CONC-BOT6-S1	BELMONT, MA
L0403638-02	12IN-CONC-NSW6-S2	BELMONT, MA
L0403638-03	12IN-CONC-SSW6-S2	BELMONT, MA
L0403638-04	12IN-CONC-WSW6-S2	BELMONT, MA

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0403638

MCP Related Narratives

Extraction methods

Extraction method 3545 was used as the extraction method for the analysis of EPH by method 98-1.

Report Submission

All MCP required questions were answered with affirmative responses, therefore, there are no relevant data issues to discuss.

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: L0403638-01
12IN-CONC-BOT6-S1
Sample Matrix: SOIL

Date Collected: 13-APR-2004 11:07
Date Received : 13-APR-2004
Date Reported : 15-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82.	%	0.10	30 2540G		0414 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-01
12IN-CONC-BOT6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0414 14:00	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.65
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.65
C9-C10 Aromatics	ND	mg/kg	2.65
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.65
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.65
Benzene	ND	mg/kg	0.132
Toluene	ND	mg/kg	0.132
Ethylbenzene	ND	mg/kg	0.132
p/m-Xylene	ND	mg/kg	0.132
o-Xylene	ND	mg/kg	0.132
Methyl tert butyl ether	ND	mg/kg	0.265
Naphthalene	ND	mg/kg	1.32

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	106.	%	70-130
2,5-Dibromotoluene-FID	116.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-01
12IN-CONC-BOT6-S1

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0413 19:45	0414 19:04	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	12.2
C19-C36 Aliphatics	ND	mg/kg	12.2
C11-C22 Aromatics, Unadjusted	ND	mg/kg	12.2
C11-C22 Aromatics, Adjusted	ND	mg/kg	12.2
Naphthalene	ND	mg/kg	0.610
2-Methylnaphthalene	ND	mg/kg	0.610
Acenaphthylene	ND	mg/kg	0.610
Acenaphthene	ND	mg/kg	0.610
Fluorene	ND	mg/kg	0.610
Phenanthrene	ND	mg/kg	0.610
Anthracene	ND	mg/kg	0.610
Fluoranthene	ND	mg/kg	0.610
Pyrene	ND	mg/kg	0.610
Benzo(a)anthracene	ND	mg/kg	0.610
Chrysene	ND	mg/kg	0.610
Benzo(b)fluoranthene	ND	mg/kg	0.610
Benzo(k)fluoranthene	ND	mg/kg	0.610
Benzo(a)pyrene	ND	mg/kg	0.610
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.610
Dibenzo(a,h)anthracene	ND	mg/kg	0.610
Benzo(g,h,i)perylene	ND	mg/kg	0.610

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	49.0	%	40-140
o-Terphenyl	67.0	%	40-140
2-Fluorobiphenyl	79.0	%	40-140
2-Bromonaphthalene	78.0	%	40-140

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: L0403638-02
12IN-CONC-NSW6-S2
Sample Matrix: SOIL

Date Collected: 13-APR-2004 11:50
Date Received : 13-APR-2004
Date Reported : 15-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	95.	%	0.10	30 2540G		0414 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-02
12IN-CONC-NSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0414 15:44	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.18
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.18
C9-C10 Aromatics	ND	mg/kg	2.18
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.18
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.18
Benzene	ND	mg/kg	0.109
Toluene	ND	mg/kg	0.109
Ethylbenzene	ND	mg/kg	0.109
p/m-Xylene	ND	mg/kg	0.109
o-Xylene	ND	mg/kg	0.109
Methyl tert butyl ether	ND	mg/kg	0.218
Naphthalene	ND	mg/kg	1.09

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	97.0	%	70-130
2,5-Dibromotoluene-FID	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: L0403638-02
12IN-CONC-NSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0413 19:45	0414 18:17	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	ND	mg/kg	0.526
Pyrene	ND	mg/kg	0.526
Benzo(a)anthracene	ND	mg/kg	0.526
Chrysene	ND	mg/kg	0.526
Benzo(b)fluoranthene	ND	mg/kg	0.526
Benzo(k)fluoranthene	ND	mg/kg	0.526
Benzo(a)pyrene	ND	mg/kg	0.526
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.526
Dibenzo(a,h)anthracene	ND	mg/kg	0.526
Benzo(g,h,i)perylene	ND	mg/kg	0.526

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	53.0	%	40-140
o-Terphenyl	70.0	%	40-140
2-Fluorobiphenyl	80.0	%	40-140
2-Bromonaphthalene	77.0	%	40-140

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:	L0403638-03	**Date Collected:**	13-APR-2004 11:54
	12IN-CONC-SSW6-S2	**Date Received :**	13-APR-2004
Sample Matrix:	SOIL	**Date Reported :**	15-APR-2004
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	95.	%	0.10	30 2540G		0414 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-03
12IN-CONC-SSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0414 16:35	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.30
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.30
C9-C10 Aromatics	ND	mg/kg	2.30
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.30
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.30
Benzene	ND	mg/kg	0.115
Toluene	ND	mg/kg	0.115
Ethylbenzene	ND	mg/kg	0.115
p/m-Xylene	ND	mg/kg	0.115
o-Xylene	ND	mg/kg	0.115
Methyl tert butyl ether	ND	mg/kg	0.230
Naphthalene	ND	mg/kg	1.15

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	85.0	%	70-130
2,5-Dibromotoluene-FID	90.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-03
12IN-CONC-SSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0413 19:45	0414 19:52	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	ND	mg/kg	0.526
Pyrene	ND	mg/kg	0.526
Benzo(a)anthracene	ND	mg/kg	0.526
Chrysene	ND	mg/kg	0.526
Benzo(b)fluoranthene	ND	mg/kg	0.526
Benzo(k)fluoranthene	ND	mg/kg	0.526
Benzo(a)pyrene	ND	mg/kg	0.526
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.526
Dibenzo(a,h)anthracene	ND	mg/kg	0.526
Benzo(g,h,i)perylene	ND	mg/kg	0.526

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	59.0	%	40-140
o-Terphenyl	78.0	%	40-140
2-Fluorobiphenyl	83.0	%	40-140
2-Bromonaphthalene	82.0	%	40-140

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: L0403638-04
12IN-CONC-WSW6-S2
Sample Matrix: SOIL

Date Collected: 13-APR-2004 11:52
Date Received : 13-APR-2004
Date Reported : 15-APR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber,1-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	95.	%	0.10	30 2540G		0414 10:08	JC

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-04
12IN-CONC-WSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0414 17:26	MM

Quality Control Information

Condition of sample received:	Satisfactory
Sample temperature upon receipt:	Received on Ice
Were samples received in methanol?	Covering the Soil
Methanol ratio:	1:1 +/- 25%

Were all QA/QC procedures REQUIRED by the method followed?	YES
Were all performance/acceptance standards for the required procedures achieved?	YES
Were significant modifications made to the method as specified in Sect 11.3?	NO

The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.04
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.04
C9-C10 Aromatics	ND	mg/kg	2.04
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.04
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.04
Benzene	ND	mg/kg	0.102
Toluene	ND	mg/kg	0.102
Ethylbenzene	ND	mg/kg	0.102
p/m-Xylene	ND	mg/kg	0.102
o-Xylene	ND	mg/kg	0.102
Methyl tert butyl ether	ND	mg/kg	0.204
Naphthalene	ND	mg/kg	1.02

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	94.0	%	70-130
2,5-Dibromotoluene-FID	100.	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403638-04
12IN-CONC-WSW6-S2

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0413 19:45	0414 20:40	LL

Quality Control Information

Condition of sample received: Satisfactory
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	mg/kg	10.5
C19-C36 Aliphatics	ND	mg/kg	10.5
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.5
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.5
Naphthalene	ND	mg/kg	0.526
2-Methylnaphthalene	ND	mg/kg	0.526
Acenaphthylene	ND	mg/kg	0.526
Acenaphthene	ND	mg/kg	0.526
Fluorene	ND	mg/kg	0.526
Phenanthrene	ND	mg/kg	0.526
Anthracene	ND	mg/kg	0.526
Fluoranthene	ND	mg/kg	0.526
Pyrene	ND	mg/kg	0.526
Benzo(a)anthracene	ND	mg/kg	0.526
Chrysene	ND	mg/kg	0.526
Benzo(b)fluoranthene	ND	mg/kg	0.526
Benzo(k)fluoranthene	ND	mg/kg	0.526
Benzo(a)pyrene	ND	mg/kg	0.526
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.526
Dibenzo(a,h)anthracene	ND	mg/kg	0.526
Benzo(g,h,i)perylene	ND	mg/kg	0.526

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	63.0	%	40-140
o-Terphenyl	81.0	%	40-140
2-Fluorobiphenyl	88.0	%	40-140
2-Bromonaphthalene	87.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403638

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Solids, Total for sample(s) 01-04 (L0403638-01, WG167716)					
Solids, Total	82.	81.	%	1	
Volatile Petroleum Hydrocarbons for sample(s) 01-04 (L0403638-01, WG167861)					
C5-C8 Aliphatics	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics	ND	ND	mg/kg	NC	50
C9-C10 Aromatics	ND	ND	mg/kg	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	mg/kg	NC	50
Benzene	ND	ND	mg/kg	NC	50
Toluene	ND	ND	mg/kg	NC	50
Ethylbenzene	ND	ND	mg/kg	NC	50
p/m-Xylene	ND	ND	mg/kg	NC	50
o-Xylene	ND	ND	mg/kg	NC	50
Methyl tert butyl ether	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	106.	94.0	%	12	70-130
2,5-Dibromotoluene-FID	116.	100.	%	15	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01-04 (L0403638-02, WG167684)					
C9-C18 Aliphatics	ND	ND	mg/kg	NC	50
C19-C36 Aliphatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics	ND	ND	mg/kg	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	mg/kg	NC	50
Naphthalene	ND	ND	mg/kg	NC	50
2-Methylnaphthalene	ND	ND	mg/kg	NC	50
Acenaphthylene	ND	ND	mg/kg	NC	50
Acenaphthene	ND	ND	mg/kg	NC	50
Fluorene	ND	ND	mg/kg	NC	50
Phenanthrene	ND	ND	mg/kg	NC	50
Anthracene	ND	ND	mg/kg	NC	50
Fluoranthene	ND	ND	mg/kg	NC	50
Pyrene	ND	ND	mg/kg	NC	50
Benzo(a)anthracene	ND	ND	mg/kg	NC	50
Chrysene	ND	ND	mg/kg	NC	50
Benzo(b)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(k)fluoranthene	ND	ND	mg/kg	NC	50
Benzo(a)pyrene	ND	ND	mg/kg	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	mg/kg	NC	50
Dibenzo(a,h)anthracene	ND	ND	mg/kg	NC	50
Benzo(ghi)perylene	ND	ND	mg/kg	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	53.0	52.0	%	2	40-140
o-Terphenyl	70.0	71.0	%	1	40-140
2-Fluorobiphenyl	80.0	77.0	%	4	40-140
2-Bromonaphthalene	77.0	75.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403638

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-04 (WG167861)		
Benzene	90	70-130
Toluene	84	70-130
Ethylbenzene	86	70-130
p/m-Xylene	83	70-130
o-Xylene	81	70-130
Methyl tert butyl ether	87	70-130
Naphthalene	86	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	100	70-130
2,5-Dibromotoluene-FID	108	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01-04 (WG167684)		
Naphthalene	59	40-140
Acenaphthene	63	40-140
Anthracene	80	40-140
Pyrene	83	40-140
Chrysene	87	40-140
Nonane (C9)	56	40-140
Tetradecane (C14)	63	40-140
Nonadecane (C19)	84	40-140
Eicosane (C20)	82	40-140
Octacosane (C28)	80	40-140
Surrogate(s)		
Chloro-Octadecane	60	40-140
o-Terphenyl	83	40-140
2-Fluorobiphenyl	83	40-140
2-Bromonaphthalene	79	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403638

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-04 (WG167861-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0414 09:38	MM
C5-C8 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Unadjusted	ND	mg/kg	2.00				
C9-C10 Aromatics	ND	mg/kg	2.00				
C5-C8 Aliphatics, Adjusted	ND	mg/kg	2.00				
C9-C12 Aliphatics, Adjusted	ND	mg/kg	2.00				
Benzene	ND	mg/kg	0.100				
Toluene	ND	mg/kg	0.100				
Ethylbenzene	ND	mg/kg	0.100				
p/m-Xylene	ND	mg/kg	0.100				
o-Xylene	ND	mg/kg	0.100				
Methyl tert butyl ether	ND	mg/kg	0.200				
Naphthalene	ND	mg/kg	1.00				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	115.	%	70-130				
2,5-Dibromotoluene-FID	123.	%	70-130				
Blank Analysis for sample(s) 01-04 (WG167684-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0413 19:45	0414 15:56	LL
C9-C18 Aliphatics	ND	mg/kg	10.0				
C19-C36 Aliphatics	ND	mg/kg	10.0				
C11-C22 Aromatics, Unadjusted	ND	mg/kg	10.0				
C11-C22 Aromatics, Adjusted	ND	mg/kg	10.0				
Naphthalene	ND	mg/kg	0.500				
2-Methylnaphthalene	ND	mg/kg	0.500				
Acenaphthylene	ND	mg/kg	0.500				
Acenaphthene	ND	mg/kg	0.500				
Fluorene	ND	mg/kg	0.500				
Phenanthrene	ND	mg/kg	0.500				
Anthracene	ND	mg/kg	0.500				
Fluoranthene	ND	mg/kg	0.500				
Pyrene	ND	mg/kg	0.500				
Benzo(a)anthracene	ND	mg/kg	0.500				
Chrysene	ND	mg/kg	0.500				
Benzo(b)fluoranthene	ND	mg/kg	0.500				
Benzo(k)fluoranthene	ND	mg/kg	0.500				
Benzo(a)pyrene	ND	mg/kg	0.500				
Indeno(1,2,3-cd)Pyrene	ND	mg/kg	0.500				
Dibenzo(a,h)anthracene	ND	mg/kg	0.500				
Benzo(g,h,i)perylene	ND	mg/kg	0.500				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	61.0	%	40-140				
o-Terphenyl	77.0	%	40-140				
2-Fluorobiphenyl	78.0	%	40-140				
2-Bromonaphthalene	75.0	%	40-140				

REFERENCES

30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0403638

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
L0403638-01A	Vial MeOH preserved	A	N/A	2.9 C	Y	Absent	VPH-DELUX
L0403638-01B	Amber 250ml unpreserved	A	N/A	2.9 C	Y	Absent	EPH-DELUX, TS
L0403638-02A	Vial MeOH preserved	A	N/A	2.9 C	Y	Absent	VPH-DELUX
L0403638-02B	Amber 250ml unpreserved	A	N/A	2.9 C	Y	Absent	EPH-DELUX, TS
L0403638-03A	Vial MeOH preserved	A	N/A	2.9 C	Y	Absent	VPH-DELUX
L0403638-03B	Amber 250ml unpreserved	A	N/A	2.9 C	Y	Absent	EPH-DELUX, TS
L0403638-04A	Vial MeOH preserved	A	N/A	2.9 C	Y	Absent	VPH-DELUX
L0403638-04B	Amber 250ml unpreserved	A	N/A	2.9 C	Y	Absent	EPH-DELUX, TS

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

H&A FILE NO. 30600-000
PROJECT NAME Burbank School
H&A CONTACT Steve Provencor
LABORATORY Alpha
ADDRESS
CONTACT
DELIVERY DATE 4/13/04
TURNAROUND TIME 2 Days
PROJECT MANAGER Joel Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	(1) VPH Full Suite C-ranges only	(2) EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
12IH-CONC-B0T6-S1	4/13/04	1107	6	Soil					X	X							2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
12IH-CONC-NSW6-S2	↓	1150	4-6	↓					X	X							2	(1)(2) EPH/VPH & Target
12IH-CONC-SSW6-S2	↓	1154	↓	↓					X	X							2	Analytes.
12IH-CONC-WSW6-S2	↓	1152	↓	↓					X	X							2	

Sampled and Relinquished by	Received by
Sign [signature]	Sign [signature]
Print Todd Bitter	Print Wesley Rubb
Firm H&A	Firm H&A
Date 4/13/04 Time 1430	Date 4/13/04 Time 1430
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print Wesley Rubb	Print Winslow
Firm H&A	Firm Alpha
Date 4/13/04 Time 1600	Date 4/13/04 Time 1600
Relinquished by	**Received by**
Sign [signature]	Sign [signature]
Print	Print
Firm	Firm
Date 4/13 Time 1756	Date 4/13 Time 1756

					(1) VPH	(2) EPH							
LIQUID													
VOA Vial													
Amber Glass													
Plastic Bottle													
Preservative													
Volume													
SOLID													
VOA Vial					X								
Amber Glass						X							
Clear Glass													
Preservative					G	A							
Volume					40ml	1.02							

Sampling Comments
* Please fax results to Mike Caruso @ 617.886.7777

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H_2SO_4	G Methanol
B Sample filtered	D HNO_3	F HCL	H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

NA Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

____ This Chain of Custody Record (specify) ________ includes ________ does not include samples defined as Drinking Water Samples.

NA If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) ________ analyze ________ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

- ☑ RC-S1 ☐ S1 ☐ GW1
- ☐ RC-S2 ☑ S2 ☑ GW2
- ☐ RC-GW1 ☐ S3 ☐ GW3
- ☐ RC-GW2

APPENDIX E

Copies of Laboratory Data Sheets – Groundwater Samples

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0400549

Date Received: 22-JAN-2004

Date Reported: 05-FEB-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO

F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400549
Date Reported: 05-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400549-01	HA-3 (OW)	BELMONT, MA
L0400549-02	HA-2 (OW)	BELMONT, MA

Laboratory Job Number: L0400549

MCP Related Narratives

Extraction methods

Extraction method 3510C was used as the extraction method for the analysis of EPH by method 98-1.

EPH

In reference to question E, the surrogate % recovery for Chloro-Octadecane (20%) on L0400549-01 is below the acceptance criteria for the method due to sample matrix. The sample was re-extracted and re-analyzed for confirmation. The re-analysis confirmed the original results, and both sets of results are reported.

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: L0400549-01
HA-3 (OW)
Sample Matrix: WATER

Date Collected: 22-JAN-2004 10:30
Date Received : 22-JAN-2004
Date Reported : 05-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0123 17:38	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	77.0	%	70-130
2,5-Dibromotoluene-FID	80.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400549-01
HA-3 (OW)

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0126 14:50	0128 21:49	BW

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	116.	ug/l	100.
C11-C22 Aromatics, Unadjusted	198.	ug/l	100.
C11-C22 Aromatics, Adjusted	198.	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	20.0	%	40-140
o-Terphenyl	77.0	%	40-140
2-Fluorobiphenyl	67.0	%	40-140
2-Bromonaphthalene	71.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400549-01
HA-3 (OW)

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0202 10:00	0203 20:43	BW

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	351.	ug/l	118.
C19-C36 Aliphatics	393.	ug/l	118.
C11-C22 Aromatics, Unadjusted	ND	ug/l	118.
C11-C22 Aromatics, Adjusted	ND	ug/l	118.
Naphthalene	ND	ug/l	23.5
2-Methylnaphthalene	ND	ug/l	23.5
Acenaphthylene	ND	ug/l	23.5
Acenaphthene	ND	ug/l	23.5
Fluorene	ND	ug/l	23.5
Phenanthrene	ND	ug/l	23.5
Anthracene	ND	ug/l	23.5
Fluoranthene	ND	ug/l	23.5
Pyrene	ND	ug/l	23.5
Benzo(a)anthracene	ND	ug/l	23.5
Chrysene	ND	ug/l	23.5
Benzo(b)fluoranthene	ND	ug/l	23.5
Benzo(k)fluoranthene	ND	ug/l	23.5
Benzo(a)pyrene	ND	ug/l	23.5
Indeno(1,2,3-cd)Pyrene	ND	ug/l	23.5
Dibenzo(a,h)anthracene	ND	ug/l	23.5
Benzo(g,h,i)perylene	ND	ug/l	23.5

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	26.0	%	40-140
o-Terphenyl	73.0	%	40-140
2-Fluorobiphenyl	70.0	%	40-140
2-Bromonaphthalene	66.0	%	40-140

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: L0400549-02
HA-2 (OW)
Sample Matrix: WATER

Date Collected: 22-JAN-2004 14:40
Date Received : 22-JAN-2004
Date Reported : 05-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0123 18:28	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	89.0	%	70-130
2,5-Dibromotoluene-FID	97.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400549-02
HA-2 (OW)

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0126 14:50	0203 16:39	BJ

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	65.0	%	40-140
o-Terphenyl	76.0	%	40-140
2-Fluorobiphenyl	72.0	%	40-140
2-Bromonaphthalene	73.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400549

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Petroleum Hydrocarbons for sample(s) 01-02 (L0400510-01, WG161630)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	54.9	61.0	ug/l	11	50
C9-C10 Aromatics	41.8	48.7	ug/l	15	50
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
Benzene	3.73	3.58	ug/l	4	50
Toluene	ND	ND	ug/l	NC	50
Ethylbenzene	ND	ND	ug/l	NC	50
p/m-Xylene	ND	ND	ug/l	NC	50
o-Xylene	ND	ND	ug/l	NC	50
Methyl tert butyl ether	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	96.0	94.0	%	2	70-130
2,5-Dibromotoluene-FID	109.	98.0	%	11	70-130
Extractable Petroleum Hydrocarbons for sample(s) 02 (L0400599-03, WG161692)					
C9-C18 Aliphatics	ND	ND	ug/l	NC	50
C19-C36 Aliphatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics, Adjusted	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
2-Methylnaphthalene	ND	ND	ug/l	NC	50
Acenaphthylene	ND	ND	ug/l	NC	50
Acenaphthene	ND	ND	ug/l	NC	50
Fluorene	ND	ND	ug/l	NC	50
Phenanthrene	ND	ND	ug/l	NC	50
Anthracene	ND	ND	ug/l	NC	50
Fluoranthene	ND	ND	ug/l	NC	50
Pyrene	ND	ND	ug/l	NC	50
Benzo(a)anthracene	ND	ND	ug/l	NC	50
Chrysene	ND	ND	ug/l	NC	50
Benzo(b)fluoranthene	ND	ND	ug/l	NC	50
Benzo(k)fluoranthene	ND	ND	ug/l	NC	50
Benzo(a)pyrene	ND	ND	ug/l	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	ug/l	NC	50
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	50
Benzo(ghi)perylene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	51.0	60.0	%	16	40-140
o-Terphenyl	76.0	71.0	%	7	40-140
2-Fluorobiphenyl	73.0	68.0	%	7	40-140
2-Bromonaphthalene	73.0	67.0	%	9	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400549

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0400776-01, WG162069)					
C9-C18 Aliphatics	143.	172.	ug/l	18	50
C19-C36 Aliphatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics	261.	307.	ug/l	16	50
C11-C22 Aromatics, Adjusted	261.	307.	ug/l	16	50
Naphthalene	ND	ND	ug/l	NC	50
2-Methylnaphthalene	ND	ND	ug/l	NC	50
Acenaphthylene	ND	ND	ug/l	NC	50
Acenaphthene	ND	ND	ug/l	NC	50
Fluorene	ND	ND	ug/l	NC	50
Phenanthrene	ND	ND	ug/l	NC	50
Anthracene	ND	ND	ug/l	NC	50
Fluoranthene	ND	ND	ug/l	NC	50
Pyrene	ND	ND	ug/l	NC	50
Benzo(a)anthracene	ND	ND	ug/l	NC	50
Chrysene	ND	ND	ug/l	NC	50
Benzo(b)fluoranthene	ND	ND	ug/l	NC	50
Benzo(k)fluoranthene	ND	ND	ug/l	NC	50
Benzo(a)pyrene	ND	ND	ug/l	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	ug/l	NC	50
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	50
Benzo(ghi)perylene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	58.0	58.0	%	0	40-140
o-Terphenyl	79.0	78.0	%	1	40-140
2-Fluorobiphenyl	71.0	72.0	%	1	40-140
2-Bromonaphthalene	73.0	75.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400549

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01-02 (WG161630)		
Benzene	90	70-130
Toluene	95	70-130
Ethylbenzene	97	70-130
p/m-Xylene	96	70-130
o-Xylene	94	70-130
Methyl tert butyl ether	100	70-130
Naphthalene	96	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	99	70-130
2,5-Dibromotoluene-FID	107	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 02 (WG161692)		
Naphthalene	48	40-140
Acenaphthene	57	40-140
Anthracene	73	40-140
Pyrene	80	40-140
Chrysene	84	40-140
Nonane (C9)	51	40-140
Tetradecane (C14)	64	40-140
Nonadecane (C19)	76	40-140
Eicosane (C20)	77	40-140
Octacosane (C28)	75	40-140
Surrogate(s)		
Chloro-Octadecane	70	40-140
o-Terphenyl	79	40-140
2-Fluorobiphenyl	68	40-140
2-Bromonaphthalene	61	40-140
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG162069)		
Naphthalene	59	40-140
Acenaphthene	67	40-140
Anthracene	74	40-140
Pyrene	81	40-140
Chrysene	84	40-140
Nonane (C9)	45	40-140
Tetradecane (C14)	62	40-140
Nonadecane (C19)	72	40-140
Eicosane (C20)	73	40-140
Octacosane (C28)	72	40-140
Surrogate(s)		
Chloro-Octadecane	60	40-140
o-Terphenyl	81	40-140
2-Fluorobiphenyl	70	40-140
2-Bromonaphthalene	70	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400549

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG161630-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0123 09:16	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				
Ethylbenzene	ND	ug/l	2.00				
p/m-Xylene	ND	ug/l	2.00				
o-Xylene	ND	ug/l	2.00				
Methyl tert butyl ether	ND	ug/l	4.00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	100.	%	70-130				
2,5-Dibromotoluene-FID	107.	%	70-130				
Blank Analysis for sample(s) 02 (WG161692-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0126 14:50	0127 10:46	BJ
C9-C18 Aliphatics	ND	ug/l	100.				
C19-C36 Aliphatics	ND	ug/l	100.				
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.				
C11-C22 Aromatics, Adjusted	ND	ug/l	100.				
Naphthalene	ND	ug/l	20.0				
2-Methylnaphthalene	ND	ug/l	20.0				
Acenaphthylene	ND	ug/l	20.0				
Acenaphthene	ND	ug/l	20.0				
Fluorene	ND	ug/l	20.0				
Phenanthrene	ND	ug/l	20.0				
Anthracene	ND	ug/l	20.0				
Fluoranthene	ND	ug/l	20.0				
Pyrene	ND	ug/l	20.0				
Benzo(a)anthracene	ND	ug/l	20.0				
Chrysene	ND	ug/l	20.0				
Benzo(b)fluoranthene	ND	ug/l	20.0				
Benzo(k)fluoranthene	ND	ug/l	20.0				
Benzo(a)pyrene	ND	ug/l	20.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0				
Dibenzo(a,h)anthracene	ND	ug/l	20.0				
Benzo(g,h,i)perylene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	61.0	%	40-140				
o-Terphenyl	66.0	%	40-140				
2-Fluorobiphenyl	64.0	%	40-140				
2-Bromonaphthalene	65.0	%	40-140				

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400549

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG162069-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0202 10:00	0203 17:28	BW
C9-C18 Aliphatics	ND	ug/l	100.				
C19-C36 Aliphatics	ND	ug/l	100.				
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.				
C11-C22 Aromatics, Adjusted	ND	ug/l	100.				
Naphthalene	ND	ug/l	20.0				
2-Methylnaphthalene	ND	ug/l	20.0				
Acenaphthylene	ND	ug/l	20.0				
Acenaphthene	ND	ug/l	20.0				
Fluorene	ND	ug/l	20.0				
Phenanthrene	ND	ug/l	20.0				
Anthracene	ND	ug/l	20.0				
Fluoranthene	ND	ug/l	20.0				
Pyrene	ND	ug/l	20.0				
Benzo(a)anthracene	ND	ug/l	20.0				
Chrysene	ND	ug/l	20.0				
Benzo(b)fluoranthene	ND	ug/l	20.0				
Benzo(k)fluoranthene	ND	ug/l	20.0				
Benzo(a)pyrene	ND	ug/l	20.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0				
Dibenzo(a,h)anthracene	ND	ug/l	20.0				
Benzo(g,h,i)perylene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	70.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	70.0	%	40-140				
2-Bromonaphthalene	64.0	%	40-140				

REFERENCES

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400549

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
L0400549-01A	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-01B	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-01C	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-01D	Amber 1000ml HCl preserved	A	<2	2.4 C	Y	Absent	EPH-DELUX
L0400549-01E	Amber 1000ml HCl preserved	A	<2	2.4 C	Y	Absent	EPH-DELUX
L0400549-02A	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-02B	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-02C	Vial HCl preserved	A	NA	2.4 C	Y	Absent	VPH-DELUX
L0400549-02D	Amber 1000ml HCl preserved	A	<2	2.4 C	Y	Absent	EPH-DELUX
L0400549-02E	Amber 1000ml HCl preserved	A	<2	2.4 C	Y	Absent	EPH-DELUX

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400
Phone (617) 886-7400
Fax (617) 886-7600

CHAIN OF CUSTODY RECORD

Page | of |

H&A FILE NO.	30660-000	LABORATORY	Alpha
PROJECT NAME	Burbank School	ADDRESS	Westboro
H&A CONTACT	Steve Provencal	CONTACT	
DELIVERY DATE		TURNAROUND TIME	10 DAY
PROJECT MANAGER	J. Mooney		

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-3(w)	1/22/04	1030	—	Aq					3	2							5
HA-2(w)	↓	1440	—	Aq					3	2							5
																	TEN TOTAL

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH + Target Analytes

VPH + Target Analytes

Sampled and Relinquished by	Received by
Sign	Sign
Print Matthew Dedon	Print
Firm H+A	Firm
Date 1/22/04 Time 13:25	Date 1/22/04 Time 16:30
Relinquished by	**Received by**
Sign	Sign
Print	Print Mike Desh
Firm	Firm Alpha
Date 1/22/04 Time 1735	Date Time 1705
Relinquished by	**Received by**
Sign	Sign
Print	Print
Firm	Firm
Date Time	Date Time

LIQUID														
					X									VOA Vial
					X	X								Amber Glass
														Plastic Bottle
					40 ml	1L								Preservative
					FA	FA								Volume

SOLID														
														VOA Vial
														Amber Glass
														Clear Glass
														Preservative
														Volume

Sampling Comments

Evidence samples were tampered with? YES NO

If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled | B ~~Sample filtered~~ | C NaOH | D HNO_3 | E H_2SO_4 | F HCL | G Methanol | H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MJD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MJD This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☒ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☒ GW2
☐ RC-GW1 ☐ S3 ☒ GW3
☐ RC-GW2

WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory GOLDENROD - Haley & Aldrich Contact

Form 3003

AUGUST 2003

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0400785

Date Received: 30-JAN-2004

Date Reported: 12-FEB-2004

Delivery Method: Alpha

The following questions pertain only to MCP Analytical Methods

An affirmative response to questions A,B,C & D is required for "Presumptive Certainty" status

A. Were all samples received by the laboratory in a condition consistent with those described on their Chain-of-Custody documentation for the data set? YES

B. Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines? YES

C. Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? YES

D. **VPH and EPH methods only:** Was the VPH or EPH method run without significant modifications, as specified in Section 11.3? YES

A response to questions E and F is required for "Presumptive Certainty" status

E. Were all QC performance standards and recommendations for the specified method(s) achieved? NO

F. Were results for all analyte-list compounds/elements for the specified method(s) reported? YES

Any answers of NO to the above questions are addressed in the case narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0400785
Date Reported: 12-FEB-2004

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0400785-01	HA-1 (OW)	BELMONT, MA

Laboratory Job Number: L0400785

MCP Related Narratives

Extraction methods

Extraction method 3510C was used as the extraction method for the analysis of EPH.

EPH

In reference to question E, the surrogate percent recovery for chloro-octadecane is below the acceptance criteria for the method, apparently due to sample matrix. Re-extract confirmed and re-analysis confirmed the original results. The results of the original analysis are reported.

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: L0400785-01
HA-1 (OW)
Sample Matrix: WATER

Date Collected: 30-JAN-2004 13:45
Date Received : 30-JAN-2004
Date Reported : 12-FEB-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber,3-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Volatile Petroleum Hydrocarbons				47 98-1		0203 19:16	MM

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the surrogate, 2,5-Dibromotoluene, is 70-130%.

C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0
C9-C10 Aromatics	ND	ug/l	40.0
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0
Benzene	ND	ug/l	2.00
Toluene	ND	ug/l	2.00
Ethylbenzene	ND	ug/l	2.00
p/m-Xylene	ND	ug/l	2.00
o-Xylene	ND	ug/l	2.00
Methyl tert butyl ether	ND	ug/l	4.00
Naphthalene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
2,5-Dibromotoluene-PID	91.0	%	70-130
2,5-Dibromotoluene-FID	91.0	%	70-130

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0400785-01
HA-1 (OW)

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Extractable Petroleum Hydrocarbons				46 98-1	0202 10:00	0212 08:21	BW

Quality Control Information

Condition of sample received: Satisfactory
Aqueous preservative: Laboratory Provided Preserved Container
Sample temperature upon receipt: Received on Ice
Sample extraction method: Extracted Per the Method
Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the extraction surrogate recoveries were less than 40%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.
The normal acceptance range for the extraction surrogates, Chloro-octadecane and o-Terphenyl, is 40-140%.
The normal acceptance range for the fractionation surrogates, 2-Fluorobiphenyl and 2-Bromonaphthalene, is 40-140%.

C9-C18 Aliphatics	ND	ug/l	100.
C19-C36 Aliphatics	ND	ug/l	100.
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.
C11-C22 Aromatics, Adjusted	ND	ug/l	100.
Naphthalene	ND	ug/l	20.0
2-Methylnaphthalene	ND	ug/l	20.0
Acenaphthylene	ND	ug/l	20.0
Acenaphthene	ND	ug/l	20.0
Fluorene	ND	ug/l	20.0
Phenanthrene	ND	ug/l	20.0
Anthracene	ND	ug/l	20.0
Fluoranthene	ND	ug/l	20.0
Pyrene	ND	ug/l	20.0
Benzo(a)anthracene	ND	ug/l	20.0
Chrysene	ND	ug/l	20.0
Benzo(b)fluoranthene	ND	ug/l	20.0
Benzo(k)fluoranthene	ND	ug/l	20.0
Benzo(a)pyrene	ND	ug/l	20.0
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0
Dibenzo(a,h)anthracene	ND	ug/l	20.0
Benzo(g,h,i)perylene	ND	ug/l	20.0

Surrogate(s)	Recovery		QC Criteria
Chloro-Octadecane	5.00	%	40-140
o-Terphenyl	49.0	%	40-140
2-Fluorobiphenyl	69.0	%	40-140
2-Bromonaphthalene	65.0	%	40-140

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0400785

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Volatile Petroleum Hydrocarbons for sample(s) 01 (L0400785-01, WG162225)					
C5-C8 Aliphatics	ND	ND	ug/l	NC	50
C9-C12 Aliphatics	ND	ND	ug/l	NC	50
C9-C10 Aromatics	ND	ND	ug/l	NC	50
C5-C8 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
C9-C12 Aliphatics, Adjusted	ND	ND	ug/l	NC	50
Benzene	ND	ND	ug/l	NC	50
Toluene	ND	ND	ug/l	NC	50
Ethylbenzene	ND	ND	ug/l	NC	50
p/m-Xylene	ND	ND	ug/l	NC	50
o-Xylene	ND	ND	ug/l	NC	50
Methyl tert butyl ether	ND	ND	ug/l	NC	50
Naphthalene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
2,5-Dibromotoluene-PID	91.0	100.	%	9	70-130
2,5-Dibromotoluene-FID	91.0	98.0	%	7	70-130
Extractable Petroleum Hydrocarbons for sample(s) 01 (L0400776-01, WG162069)					
C9-C18 Aliphatics	143.	172.	ug/l	18	50
C19-C36 Aliphatics	ND	ND	ug/l	NC	50
C11-C22 Aromatics	261.	307.	ug/l	16	50
C11-C22 Aromatics, Adjusted	261.	307.	ug/l	16	50
Naphthalene	ND	ND	ug/l	NC	50
2-Methylnaphthalene	ND	ND	ug/l	NC	50
Acenaphthylene	ND	ND	ug/l	NC	50
Acenaphthene	ND	ND	ug/l	NC	50
Fluorene	ND	ND	ug/l	NC	50
Phenanthrene	ND	ND	ug/l	NC	50
Anthracene	ND	ND	ug/l	NC	50
Fluoranthene	ND	ND	ug/l	NC	50
Pyrene	ND	ND	ug/l	NC	50
Benzo(a)anthracene	ND	ND	ug/l	NC	50
Chrysene	ND	ND	ug/l	NC	50
Benzo(b)fluoranthene	ND	ND	ug/l	NC	50
Benzo(k)fluoranthene	ND	ND	ug/l	NC	50
Benzo(a)pyrene	ND	ND	ug/l	NC	50
Indeno(1,2,3-cd)Pyrene	ND	ND	ug/l	NC	50
Dibenzo(a,h)anthracene	ND	ND	ug/l	NC	50
Benzo(ghi)perylene	ND	ND	ug/l	NC	50
Surrogate(s)	Recovery				QC Criteria
Chloro-Octadecane	58.0	58.0	%	0	40-140
o-Terphenyl	79.0	78.0	%	1	40-140
2-Fluorobiphenyl	71.0	72.0	%	1	40-140
2-Bromonaphthalene	73.0	75.0	%	3	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0400785

Parameter	% Recovery	QC Criteria
Volatile Petroleum Hydrocarbons LCS for sample(s) 01 (WG162225)		
Benzene	101	70-130
Toluene	100	70-130
Ethylbenzene	104	70-130
p/m-Xylene	101	70-130
o-Xylene	100	70-130
Methyl tert butyl ether	103	70-130
Naphthalene	100	70-130
Surrogate(s)		
2,5-Dibromotoluene-PID	94	70-130
2,5-Dibromotoluene-FID	94	70-130
Extractable Petroleum Hydrocarbons LCS for sample(s) 01 (WG162069)		
Naphthalene	59	40-140
Acenaphthene	67	40-140
Anthracene	74	40-140
Pyrene	81	40-140
Chrysene	84	40-140
Nonane (C9)	45	40-140
Tetradecane (C14)	62	40-140
Nonadecane (C19)	72	40-140
Eicosane (C20)	73	40-140
Octacosane (C28)	72	40-140
Surrogate(s)		
Chloro-Octadecane	60	40-140
o-Terphenyl	81	40-140
2-Fluorobiphenyl	70	40-140
2-Bromonaphthalene	70	40-140

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0400785

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01 (WG162225-3)							
Volatile Petroleum Hydrocarbons				47 98-1		0203 09:35	MM
C5-C8 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Unadjusted	ND	ug/l	40.0				
C9-C10 Aromatics	ND	ug/l	40.0				
C5-C8 Aliphatics, Adjusted	ND	ug/l	40.0				
C9-C12 Aliphatics, Adjusted	ND	ug/l	40.0				
Benzene	ND	ug/l	2.00				
Toluene	ND	ug/l	2.00				
Ethylbenzene	ND	ug/l	2.00				
p/m-Xylene	ND	ug/l	2.00				
o-Xylene	ND	ug/l	2.00				
Methyl tert butyl ether	ND	ug/l	4.00				
Naphthalene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
2,5-Dibromotoluene-PID	108.	%	70-130				
2,5-Dibromotoluene-FID	104.	%	70-130				
Blank Analysis for sample(s) 01 (WG162069-1)							
Extractable Petroleum Hydrocarbons				46 98-1	0202 10:00	0203 17:28	BW
C9-C18 Aliphatics	ND	ug/l	100.				
C19-C36 Aliphatics	ND	ug/l	100.				
C11-C22 Aromatics, Unadjusted	ND	ug/l	100.				
C11-C22 Aromatics, Adjusted	ND	ug/l	100.				
Naphthalene	ND	ug/l	20.0				
2-Methylnaphthalene	ND	ug/l	20.0				
Acenaphthylene	ND	ug/l	20.0				
Acenaphthene	ND	ug/l	20.0				
Fluorene	ND	ug/l	20.0				
Phenanthrene	ND	ug/l	20.0				
Anthracene	ND	ug/l	20.0				
Fluoranthene	ND	ug/l	20.0				
Pyrene	ND	ug/l	20.0				
Benzo(a)anthracene	ND	ug/l	20.0				
Chrysene	ND	ug/l	20.0				
Benzo(b)fluoranthene	ND	ug/l	20.0				
Benzo(k)fluoranthene	ND	ug/l	20.0				
Benzo(a)pyrene	ND	ug/l	20.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	20.0				
Dibenzo(a,h)anthracene	ND	ug/l	20.0				
Benzo(g,h,i)perylene	ND	ug/l	20.0				
Surrogate(s)	Recovery		QC Criteria				
Chloro-Octadecane	70.0	%	40-140				
o-Terphenyl	73.0	%	40-140				
2-Fluorobiphenyl	70.0	%	40-140				
2-Bromonaphthalene	64.0	%	40-140				

REFERENCES

46. Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), Massachusetts Department of Environmental Protection, (MADEP-EPH-98-1), January 1998.

47. Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), Massachusetts Department of Environmental Protection, (MADEP-VPH-98-1), January 1998.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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: L0400785

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
L0400785-01A	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	VPH-DELUX
L0400785-01B	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	VPH-DELUX
L0400785-01C	Amber 1000ml HCl preserved	A	<2	0.8 C	Y	Absent	EPH-DELUX
L0400785-01D	Amber 1000ml HCl preserved	A	<2	0.8 C	Y	Absent	EPH-DELUX
L0400785-01E	Vial HCl preserved	A	N/A	0.8 C	Y	Absent	VPH-DELUX

Container Comments

Container ID	Comments

HALEY & ALDRICH
Haley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1400

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO. 30660 - 000
PROJECT NAME Burbank School
H&A CONTACT Steve Drouhcal

LABORATORY Alpha Westboro, MA
ADDRESS
CONTACT

DELIVERY DATE
TURNAROUND TIME 10 DAY
PROJECT MANAGER J. Mooney

Sample No.	Date	Time	Depth	Type	VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				Number of Containers
HA-1(gw)	1/30/04	13:45	-	Aq					3	2							5

Analysis Requested

Comments (special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

EPH Target Analytes

VPH and Target analytes.

5 TOTAL

Sampled and Relinquished by
Sign
Print Matthew Dodson
Firm H&A
Date 1/30/04 Time

Received by
Sign
Print
Firm
Date 1/30/04 Time 1600

Relinquished by
Sign
Print
Firm
Date 1/30 Time 1915

Received by
Sign
Print
Firm
Date 1/30 Time 1915

Relinquished by
Sign
Print
Firm
Date Time

Received by
Sign
Print
Firm
Date Time

LIQUID												
				X								VOA Vial
				X	X							Amber Glass
												Plastic Bottle
				40ml	1L							Preservative
				FA	FA							Volume

SOLID												
												VOA Vial
												Amber Glass
												Clear Glass
												Preservative
												Volume

Sampling Comments

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

PRESERVATION KEY

~~A Sample chilled~~ C NaOH ~~E H_2SO_4~~ G Methanol
~~B Sample filtered~~ D HNO_3 F HCL H Water/NaHSO4 (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

MJD The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

MJD This Chain of Custody Record (specify) _____ includes X does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze _____ hold for contingency testing the Drinking Water Field Duplicate and Drinking Water Trip Blank samples.

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☑ S1 ☐ GW1
☐ RC-S2 ☐ S2 ☑ GW2
☐ RC-GW1 ☐ S3 ☑ GW3
☐ RC-GW2

APPENDIX F

Copies of Laboratory Data Sheets – Indoor Air

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0312701

Date Received: 17-DEC-2003

Date Reported: 19-DEC-2003

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0312701-01	BSTR-GYM	BELMONT, MA
L0312701-02	BSTR-RM203	BELMONT, MA
L0312701-03	BSTR-RM303	BELMONT, MA
L0312701-04	UNUSED CANISTER	BELMONT, MA

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: Ellen M. Collins
This document electronically signed

ALPHA ANALYTICAL LABORATORIES
NARRATIVE REPORT

Laboratory Job Number: L0312701

APH

L0312701-01 through -03 had Limonene present. This compound elutes in the C9-C12 aliphatic hydrocarbon range. The response for this analyte was not included in the calculation of the C9-C12 aliphatic hydrocarbon range result since it is a not petroleum hydrocarbon.

L0312701-01 had Trichlorofluoromethane present. This compound elutes in the C5-C8 aliphatic hydrocarbon range. The response for this analyte was not included in the calculation of the C5-C8 aliphatic hydrocarbon range result since it is a not petroleum hydrocarbon.

L0312701-02 had Isopropyl alcohol and Trichlorofluoromethane present. These compounds elute in the C5-C8 aliphatic hydrocarbon range. The response for these analytes were not included in the calculation of the C5-C8 aliphatic hydrocarbon range result since they are not petroleum hydrocarbons.

L0312701-03 had Isopropyl alcohol present. This compound elutes in the C5-C8 aliphatic hydrocarbon range. The response for this analyte was not included in the calculation of the C5-C8 aliphatic hydrocarbon range result since it is a not petroleum hydrocarbon.

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: L0312701-01
BSTR-GYM
Sample Matrix: AIR

Date Collected: 16-DEC-2003 16:37
Date Received : 17-DEC-2003
Date Reported : 19-DEC-2003

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		1218 13:06	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	112.	ug/m3	24.0
C9-C12 Aliphatics	103.	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	2.50	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	101.	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	93.4	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0312701-02
BSTR-RM203
Sample Matrix: AIR

Date Collected: 16-DEC-2003 16:45
Date Received : 17-DEC-2003
Date Reported : 19-DEC-2003

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		1218 13:48	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	61.0	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	2.00	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	53.5	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0312701-03
BSTR-RM303
Sample Matrix: AIR

Date Collected: 16-DEC-2003 16:42
Date Received : 17-DEC-2003
Date Reported : 19-DEC-2003

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		1218 16:16	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? YES
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	72.0	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	ND	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	65.9	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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:	L0312701-04	**Date Collected:**	
	UNUSED CANISTER	**Date Received :**	17-DEC-2003
Sample Matrix:	AIR	**Date Reported :**	19-DEC-2003
Condition of Sample:	Satisfactory	**Field Prep:**	None

Number & Type of Containers:

Comments:
No analysis performed.

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0312701

Parameter	% Recovery	QC Criteria
Petroleum Hydrocarbons in Air LCS for sample(s) 01-03 (WG159201)		
1,3-Butadiene	114	
Methyl tert butyl ether	86	
Benzene	79	
Toluene	81	
Ethylbenzene	81	
p/m-Xylene	83	
o-Xylene	81	
Naphthalene	108	
2-Methylnaphthalene	118	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0312701

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG159201-3)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		1218 10:35	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				

REFERENCES

43. Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), Draft 1.0, Massachusetts Department of Environmental Protection, February 2000.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

AIR ANALYSIS

ALPHA — CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 12/17/03

ALPHA Job #: L0312701

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

Client Information

Client: H&A
Address: 465 Medford St.
Suite 2200 Boston, MA
Phone: 617.902.2753 (Todd Butler)
Fax: 617.886.7435 (Joel Mooney)
Email: → Primary Contact
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Bulbank School Toxic Release
Project Location: Belmont, MA
Project #: 30660-000
Project Manager: Joel Mooney
ALPHA Quote #:

Turn-Around Time

☐ Standard (AIR - 10 DAYS; DISSOLVED GASES - 5 DAYS)
☒ RUSH (only confirmed if pre-approved) 24 HRS. TURN AROUND TIME
Date Due: 12/18/03 Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager) Joel Maxey & Rich Race

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:
Can No. 0210 and flow controller No. 00306 not used b/c did not hold pressure. Leak in system. Replaced O-ring & still did not hold pressure.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Sample Matrix	Sampler's Initials	ID Can	ID - Flow Controller	TO-14A	TO-15	APH	DISSOLVED GASES	FIXED GASES		Sample Comments	TOTAL # CONTAINERS
12701. 1	BSTR-GYM	12/15→12/16	1659	1634	AIR	TRB	0236	00305			X				Init Press: 29, End:	1
2	BSTR-RM203	12/15→12/16	1701	1645	AIR	TRB	0106	00277			X				Init Press: 28, End:	1
3	BSTR-RM303	12/15→12/16	1706	1642	AIR	TRB	0176	00304			X				Init Press: 30, End:	1

Shaded Gray Areas For Lab Use Only

Container Type: [illegible] | CAN

Relinquished By:	Date/Time	Received By:	Date/Time
Todd Butler	12/16/03 1810	Todd Butler	12/17/03 @ 1452
Todd Butler	12/17/03 @ 1452	[illegible]	12/17/03 - 14:52
[illegible]	12/17 1835	[illegible]	12/17/03 1835

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

Form No: 10-02-AIR

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0313012

Date Received: 05-JAN-2004

Date Reported: 06-JAN-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0313012-01	BSTR-GYM-S2	BELMONT, MA
L0313012-02	BSTR-RM203-S2	BELMONT, MA
L0313012-03	BSTR-RM303-S2	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0313012

APH

The LCS % recovery for 1,3-Butadiene (168%) is above the acceptance criteria for the method. All associated samples are non-detect for this compound.

L0313012-01 through -03 had Trichlorofluoromethane present. This compound elutes in the C5-C8 aliphatic hydrocarbon range. The response for this analyte was not included in the calculation of the C5-C8 aliphatic hydrocarbon range result since it is not a petroleum hydrocarbon.

L0313012-01 through -03 had 1,4-Dichlorobenzene and Limonene present. These compounds elute in the C9-C12 aliphatic hydrocarbon range. The response for these analytes were not included in the calculation of the C9-C12 aliphatic hydrocarbon range result since they are not petroleum hydrocarbons.

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: L0313012-01
BSTR-GYM-S2
Sample Matrix: AIR

Date Collected: 03-JAN-2004 07:55
Date Received : 05-JAN-2004
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0106 14:52	AR

Quality Control Information

Sample Type: 24hr comp
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	52.5	ug/m3	24.0
C9-C12 Aliphatics	38.8	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	2.02	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	2.54	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	41.4	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	32.8	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0313012-02
BSTR-RM203-S2
Sample Matrix: AIR

Date Collected: 03-JAN-2004 07:56
Date Received : 05-JAN-2004
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0106 15:31	AR

Quality Control Information

Sample Type: 24hr Comp
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	128.	ug/m3	24.0
C9-C12 Aliphatics	59.1	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	3.87	ug/m3	2.00
Benzene	2.18	ug/m3	2.00
Toluene	4.78	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	4.59	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	109.	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	50.0	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0313012-03
BSTR-RM303-S2
Sample Matrix: AIR

Date Collected: 03-JAN-2004 07:58
Date Received : 05-JAN-2004
Date Reported : 06-JAN-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0106 16:10	AR

Quality Control Information

Sample Type: 24hr Comp
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO
Please note to subtract the method blank from the stated result.

C5-C8 Aliphatics	104.	ug/m3	24.0
C9-C12 Aliphatics	58.1	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	3.37	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	5.20	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	87.1	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	50.7	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0313012

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Petroleum Hydrocarbons in Air for sample(s) 01-03 (L0313012-03, WG160364)					
C5-C8 Aliphatics	104.	111.	ug/m3	7	30
C9-C12 Aliphatics	58.1	66.6	ug/m3	14	30
1,3-Butadiene	ND	ND	ug/m3	NC	30
Methyl tert butyl ether	3.37	3.74	ug/m3	10	30
Benzene	ND	2.06	ug/m3	NC	30
Toluene	5.20	5.30	ug/m3	2	30
Ethylbenzene	ND	ND	ug/m3	NC	30
p/m-Xylene	ND	4.12	ug/m3	NC	30
o-Xylene	ND	ND	ug/m3	NC	30
Naphthalene	ND	ND	ug/m3	NC	30
2-Methylnaphthalene	ND	ND	ug/m3	NC	30
C5-C8 Aliphatics, Adjusted	87.1	93.3	ug/m3	7	30
C9-C12 Aliphatics, Adjusted	50.7	58.6	ug/m3	14	30
C9-C10 Aromatics	ND	ND	ug/m3	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0313012

Parameter	% Recovery	QC Criteria
Petroleum Hydrocarbons in Air LCS for sample(s) 01-03 (WG160364)		
1,3-Butadiene	168	
Methyl tert butyl ether	121	
Benzene	105	
Toluene	110	
Ethylbenzene	126	
p/m-Xylene	128	
o-Xylene	120	
Naphthalene	72	
2-Methylnaphthalene	80	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0313012

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-03 (WG160364-3)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0106 12:38	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				

REFERENCES

43. Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), Draft 1.0, Massachusetts Department of Environmental Protection, February 2000.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

AIR ANALYSIS

PAGE ___ OF ___

ALPHA
CHAIN OF CUSTODY

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

Date Rec'd in Lab: 1/5/04

ALPHA Job #: L0313012

Client Information

Client: Haley & Aldrich Inc.
Address: 465 Medford St.
Suite 2200 Boston, MA
Phone: 617.886.7435
Fax:
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Building School
Project Location: Belmont, MA
Project #: 30660-000
Project Manager: Joel Mooney
ALPHA Quote #:

Turn-Around Time

☐ Standard (AIR 10 DAYS, DISSOLVED GASES 5 DAYS)
☒ RUSH (only confirmed if pre-approved) 24 HRS
Date Due: Tue 6 Jan 04 Time: 1515

Report Information - Data Deliverables

☒ FAX
☐ ADEx
Criteria Checker: ___
(Default based on Regulatory Criteria Indicated)
Other Formats: ___
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Sample Matrix	Sampler's Initials	ID Can	ID - Flow Controller	TO-14A	TO-15	APH	DISSOLVED GASES	FIXED GASES	Sample Comments	TOTAL # CONTAINERS	
														Init. Pres (in Hg)		Final Press (in Hg)
3012.1	BSTR-GYM-S2	1/3/04	0808	0755	AIR	RO	0151	00307			X			30	1	5
.2	BSTR-RM203-S2	1/3/04	0809	0756	AIR	RO	0232	00279			X			30	1	3.5
.3	BSTR-RM305-S2	1/3/04	0811	0758	AIR	RO	0230	00280			X			29	1	0

Shaded Gray Areas For Lab Use Only

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1/4/04 0725	[signature]	1/5/04 1112
[signature]	1/5 1315	[signature]	1/5/04 1315

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

Form No: 10-02 AIR

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL

Laboratory Job Number: L0401408

Date Received: 23-FEB-2004

Date Reported: 01-MAR-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401408-01	BSTR-GYM-021904	BELMONT, MA
L0401408-02	BSTR-RM202-021904	BELMONT, MA
L0401408-03	BSTR-RM303-021904	BELMONT, MA
L0401408-04	BSTR-RM106-021904	BELMONT, MA
L0401408-05	BSTR-RM109-021904	BELMONT, MA
L0401408-06	BSTR-RM212-021904	BELMONT, MA

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Scott McLean
This document electronically signed

Laboratory Job Number: L0401408

Petroleum Hydrocarbons in Air

Acetone and Trichlorofluoromethane are present in L0401408-01 through -06. Methyl Isobutyl Ketone is present in L0401408-01 and -02. Isopropyl Alcohol is present in L0401408-03 and -04. These compounds elute in the C5-C8 Aliphatic Hydrocarbon range. The response for these analytes was not included in the calculation of the C5-C8 range result since they are not petroleum hydrocarbons.

The LCS % recovery for 1,3-Butadiene (180%) is above the acceptance criteria for the method.

The LCS % recovery for 2-Methylnaphthalene (52.3%) is below the individual acceptance criteria for the compound, but within the overall method allowances.

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: L0401408-01
BSTR-GYM-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:49
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 16:48	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	40.2	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	5.36	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	31.9	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401408-02
BSTR-RM202-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:58
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 17:29	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	78.0	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	39.2	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	32.2	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401408-03
BSTR-RM303-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:56
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 18:10	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	26.0	ug/m3	24.0
C9-C12 Aliphatics	110.	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	ND	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	110.	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401408-04
BSTR-RM106-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:51
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 18:50	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	ND	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	ND	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401408-05
BSTR-RM109-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:53
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 19:31	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	ND	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	ND	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401408-06
BSTR-RM212-021904
Sample Matrix: AIR

Date Collected: 20-FEB-2004 10:54
Date Received : 23-FEB-2004
Date Reported : 01-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 20:12	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	ND	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	ND	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0401408

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Petroleum Hydrocarbons in Air for sample(s) 01-06 (L0401293-10, WG164004)					
C5-C8 Aliphatics	457.	348.	ug/m3	27	30
C9-C12 Aliphatics	280.	253.	ug/m3	10	30
1,3-Butadiene	ND	ND	ug/m3	NC	30
Methyl tert butyl ether	2.60	2.02	ug/m3	25	30
Benzene	ND	ND	ug/m3	NC	30
Toluene	42.3	32.2	ug/m3	27	30
Ethylbenzene	2.70	2.28	ug/m3	17	30
p/m-Xylene	13.2	10.8	ug/m3	20	30
o-Xylene	3.17	2.52	ug/m3	23	30
Naphthalene	ND	ND	ug/m3	NC	30
2-Methylnaphthalene	ND	ND	ug/m3	NC	30
C5-C8 Aliphatics, Adjusted	392.	297.	ug/m3	28	30
C9-C12 Aliphatics, Adjusted	272.	244.	ug/m3	11	30
C9-C10 Aromatics	ND	ND	ug/m3	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401408

Parameter	% Recovery	QC Criteria
Petroleum Hydrocarbons in Air LCS for sample(s) 01-06 (WG164004)		
1,3-Butadiene	180	
Methyl tert butyl ether	90	
Benzene	80	
Toluene	80	
Ethylbenzene	87	
p/m-Xylene	117	
o-Xylene	89	
Naphthalene	82	
2-Methylnaphthalene	52	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401408

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-06 (WG164004-5)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0228 11:22	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				

REFERENCES

43. Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), Draft 1.0, Massachusetts Department of Environmental Protection, February 2000.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

AIR ANALYSIS

CHAIN OF CUSTODY PAGE 1 OF 1

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

Date Rec'd in Lab: 2/23/04 **ALPHA Job #:** L0401408

Client Information

Client: Haley & Aldrich, Inc.
Address: 465 Medford St.
Boston, MA
Phone: 617.886.7434
~~Fax:~~ Cell 857.498.1242
Email: nreardon@HaleyAldrich.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Burbank School
Project Location: Belmont, MA
Project #: 30660-000
Project Manager: Joel Mooney
ALPHA Quote #:

Turn-Around Time

☒ Standard (AIR - 10 DAYS; DISSOLVED GASES - 5 DAYS) ☐ RUSH (only confirmed if pre-approved!)
Date Due: 3/1/04 Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager) Nancy Reardon
nreardon@HaleyAldrich.com

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Sample Matrix	Sampler's Initials	ID Can	ID - Flow Controller	TO-14A	TO-15	APH	DISSOLVED GASES	FIXED GASES	Sample Comments	TOTAL # CONTAINERS	(in/Hg End Press)
01408. 1	BSTR-GYM-021904	2/20/04	1058	1049	Air	MB	0154	00319			X			Int. Press: 29 (in/Hg)	1	0
2	BSTR-RM202-021904	2/20/04	1105	1058	"	MB	0103	00490			X			Int. Press: 30	1	1
3	BSTR-RM303-021904	2/20/04	1104	1056	"	MB	0223	00311			X			Int Press: 30	1	0
4	BSTR-RM106-021904	↓	1100	1051	"	MB	0107	00494			X			Int Press: 29.5	1	0
5	BSTR-RM109-021904	↓	1101	1053	"	MB	0121	00282			X			Int Press: 30+	1	0
6	BSTR-RM212-021904	↓	1102	1054	"	MB	0232	00305			X			Int Press: 30	1	0

Shaded Gray Areas For Lab Use Only

Container Type: CAN

Relinquished By:	Date/Time	Received By:	Date/Time
Todd R Butt[illegible]	2/20/04 1355	Desmond Crawford	2/20/04 15:55
Desmond Crawford CH+A	02/23/04 15:46	[illegible signature]	2/23 15:46
[illegible signature]	2/23/04 1640	[illegible signature]	2/23/04 1640

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

Form No: 10-02-AIR

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.

Address: 465 Medford Street, Suite 2200

Boston, MA 02129-1400

Attn: Mr. Steve Provencal

Project Number: 30660-000

Site: BURBANK SCHOOL TANK RELEASE

Laboratory Job Number: L0401942

Date Received: 08-MAR-2004

Date Reported: 16-MAR-2004

Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0401942-01	BSTR-GYM-030504	BELMONT, MA
L0401942-02	BSTR-RM106-030504	BELMONT, MA
L0401942-03	BSTR-RM109-030504	BELMONT, MA
L0401942-04	BSTR-RM303-030504	BELMONT, MA
L0401942-05	BSTR-RM203-030504	BELMONT, MA
L0401942-06	BSTR-RM212-030504	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0401942

APH

Acetone, Trichlorofluoromethane, and isopropyl alcohol are present in L0401942-02, -03, -05, and -06. These compounds elute in the C5-C8 Aliphatic Hydrocarbon range. The response for these analytes was not included in the calculation of the C5-C8 range result since they are not petroleum hydrocarbons.

Acetone, Trichlorofluoromethane, 2-Butanone, methyl isobutyl Ketone (MIBK) and isopropyl alcohol are present in L0401942-01 and -04. These compounds elute in the C5-C8 Aliphatic Hydrocarbon range. The response for these analytes was not included in the calculation of the C5-C8 range result since they are not petroleum hydrocarbons.

The LCS % recovery associated with -03 through -06 for 1,3-butadiene is above the acceptance criteria for the method. All associated samples are non-detect for this compound.

The LCS % recovery associated with -03 through -06 for naphthalene and 2-methylnphthalene is below the individual acceptance criteria for the compound, but within the overall method allowances.

The LCS % recovery associated with -01 and -02 for 1,3-butadiene and m/p-xylene is above the acceptance criteria for the method. All associated samples are non-detect for this compound.

The LCS % recovery associated with -01 and -02 for naphthalene is below the individual acceptance criteria for the compound, but within the overall method allowances.

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: L0401942-01
BSTR-GYM-030504
Sample Matrix: AIR

Date Collected: 06-MAR-2004 16:00
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0315 15:18	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	52.3	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	ND	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	2.77	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	44.8	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401942-02 BSTR-RM106-030504
Sample Matrix: AIR
Date Collected: 06-MAR-2004 16:15
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0315 16:00	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	48.2	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	2.62	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	5.49	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	34.5	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401942-03
BSTR-RM109-030504
Sample Matrix: AIR

Date Collected: 06-MAR-2004 16:10
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0312 17:55	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	26.9	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	2.37	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	3.03	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401942-04 BSTR-RM303-030504
Sample Matrix: AIR
Date Collected: 06-MAR-2004 16:05
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0312 18:38	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	53.5	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	2.58	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	13.2	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	32.0	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401942-05
BSTR-RM203-030504
Sample Matrix: AIR

Date Collected: 06-MAR-2004 16:03
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0312 19:20	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	121.	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	3.48	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	4.28	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	109.	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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: L0401942-06
BSTR-RM212-030504
Sample Matrix: AIR

Date Collected: 06-MAR-2004 16:11
Date Received : 08-MAR-2004
Date Reported : 16-MAR-2004

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0312 20:02	AR

Quality Control Information

Sample Type: 24 hrs flow
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were less than 70%.
2. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	35.7	ug/m3	24.0
C9-C12 Aliphatics	ND	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	3.17	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	3.91	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	ND	ug/m3	4.00
o-Xylene	ND	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0
C9-C10 Aromatics	ND	ug/m3	24.0

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0401942

Parameter	% Recovery	QC Criteria
Petroleum Hydrocarbons in Air LCS for sample(s) 03-06 (WG165292)		
1,3-Butadiene	165	
Methyl tert butyl ether	99	
Benzene	89	
Toluene	88	
Ethylbenzene	82	
p/m-Xylene	114	
o-Xylene	88	
Naphthalene	57	
2-Methylnaphthalene	16	
Petroleum Hydrocarbons in Air LCS for sample(s) 01-02 (WG165292)		
1,3-Butadiene	174	
Methyl tert butyl ether	118	
Benzene	109	
Toluene	108	
Ethylbenzene	108	
p/m-Xylene	146	
o-Xylene	111	
Naphthalene	66	
2-Methylnaphthalene	71	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0401942

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 03-06 (WG165292-3)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0312 14:19	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				
Blank Analysis for sample(s) 01-02 (WG165292-5)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0315 14:10	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				

REFERENCES

43. Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), Draft 1.0, Massachusetts Department of Environmental Protection, February 2000.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 3/8

ALPHA Job #: L0401942

Client Information

Client: HALEY + ALDRICH
Address: 465 MEDFORD ST
BOSTON MA 02129
Phone: 617 886 7465
Fax: 617 886 7765
Email: nreardon@haleyaldrich.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: BURBANK SCHOOL
Project Location: BELMONT, MA
Project #: 30660-000
Project Manager: JOEL MOONEY
ALPHA Quote #:

Turn-Around Time

☑ Standard 3/15 ☐ RUSH (only confirmed if pre-approved!)
AIR - 10 DAYS
DISSOLVED GASES - 5 DAYS
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☑ EMAIL (standard pdf report)
☐ Additional Deliverables: _____
Report to: (if different than Project Manager) NANCY REARDON (nreardon@haleyaldrich.com)

Billing Information

☑ Same as Client info | PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Sample Matrix	Sampler's Initials	ID Can	ID - Flow Controller	TO-14A	TO-15	APH	DISSOLVED GASES	FIXED GASES		Hg" START	Hg" STOP	TOTAL # CONTAINERS
									ANALYSIS						Sample Comments		
1942.1	BSTR-GYM-030504	3/5/04 to 3/6/04	16:25	16:00	AIR	NER	0222	00316			X				30"	0"	1
2	BSTR-RM106-030504	3/5/04 to 3/6/04	16:32	16:15	AIR	NER	0143	00500			X				30+"	10"	1
3	BSTR-RM109-030504	3/5/04 to 3/6/04	16:35	16:10	AIR	NER	0127	00497			X				30"	0"	1
4	BSTR-RM303-030504	3/5/04 to 3/6/04	16:39	16:05	AIR	NER	0158	00319			X				29"	1"	1
5	BSTR-RM203-030504	3/5/04 to 3/6/04	16:45	16:03	AIR	NER	0188	00494			X				30"	0"	1
6	BSTR-RM212-030504	3/5/04 to 3/6/04	16:50	16:11	AIR	NER	0112	00305			X				30+"	0.5"	1

Shaded Gray Areas For Lab Use Only

Container Type

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.

Relinquished By:	Date/Time	Received By:	Date/Time
	11:13 03/08/04		3/8 14:30
	3/8 1646		3/8 1646

Form No: 10-02-AIR

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com

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

CERTIFICATE OF ANALYSIS

Client: Haley & Aldrich, Inc.
Address: 465 Medford Street, Suite 2200
Boston, MA 02129-1400
Attn: Mr. Steve Provencal
Project Number: 30660-000
Site: BURBANK SCHOOL

Laboratory Job Number: L0403043
Date Received: 06-APR-2004
Date Reported: 13-APR-2004
Delivery Method: Alpha

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0403043-01	IAQ-STORAGE-05APR04	BELMONT, MA
L0403043-02	IAQ-BOILER-05APR04	BELMONT, MA

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
NARRATIVE REPORT

Laboratory Job Number: L0403043

APH

The LCS % recovery for naphthalene is above the acceptance criteria for the method. All associated samples are non-detect for this compound or were re-analyzed.

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: L0403043-01
IAQ-STORAGE-05APR04
Sample Matrix: AIR

Date Collected: 05-APR-2004 12:53
Date Received : 06-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0408 08:37	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	99.8	ug/m3	24.0
C9-C12 Aliphatics	116.	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	8.83	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	7.64	ug/m3	2.00
Ethylbenzene	3.54	ug/m3	2.00
p/m-Xylene	11.1	ug/m3	4.00
o-Xylene	3.24	ug/m3	2.00
Naphthalene	ND	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	63.9	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	57.6	ug/m3	28.0
C9-C10 Aromatics	57.7	ug/m3	24.0

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: L0403043-02
IAQ-BOILER-05APR04
Sample Matrix: AIR

Date Collected: 05-APR-2004 12:55
Date Received : 06-APR-2004
Date Reported : 13-APR-2004

Condition of Sample: Satisfactory
Field Prep: None

Number & Type of Containers: 1-Can

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0408 09:15	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

C5-C8 Aliphatics	84.7	ug/m3	24.0
C9-C12 Aliphatics	285.	ug/m3	28.0
1,3-Butadiene	ND	ug/m3	2.00
Methyl tert butyl ether	13.8	ug/m3	2.00
Benzene	ND	ug/m3	2.00
Toluene	5.56	ug/m3	2.00
Ethylbenzene	ND	ug/m3	2.00
p/m-Xylene	6.03	ug/m3	4.00
o-Xylene	2.44	ug/m3	2.00
2-Methylnaphthalene	ND	ug/m3	8.00
C5-C8 Aliphatics, Adjusted	53.7	ug/m3	24.0
C9-C12 Aliphatics, Adjusted	210.	ug/m3	28.0
C9-C10 Aromatics	72.1	ug/m3	24.0

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

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0403043-02
IAQ-BOILER-05APR04

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Petroleum Hydrocarbons in Air				43 DRAFT 1		0412 13:42	AR

Quality Control Information

Sample Type: 24 hour Time-integrated
Sample Container Type: Canister
Sampling Flow Controller: Mechanical
Sampling Zone: Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check: <=10%

Were all QA/QC procedures REQUIRED by the method followed? YES
Were all performance/acceptance standards for the required procedures achieved? NO
1. One or more of the APH LCS recoveries were greater than 130%.
Were significant modifications made to the method as specified in Sect 11.3? NO

Naphthalene	3.64	ug/m3	2.00

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

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0403043

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Petroleum Hydrocarbons in Air for sample(s) 01-02 (L0402801-04, WG167279)					
C5-C8 Aliphatics	128.	129.	ug/m3	1	30
C9-C12 Aliphatics	88.6	87.9	ug/m3	1	30
1,3-Butadiene	ND	ND	ug/m3	NC	30
Methyl tert butyl ether	6.10	6.16	ug/m3	1	30
Benzene	ND	ND	ug/m3	NC	30
Toluene	15.9	16.4	ug/m3	3	30
Ethylbenzene	2.02	2.04	ug/m3	1	30
p/m-Xylene	6.69	6.92	ug/m3	3	30
o-Xylene	2.48	2.45	ug/m3	1	30
Naphthalene	ND	ND	ug/m3	NC	30
2-Methylnaphthalene	ND	ND	ug/m3	NC	30
C5-C8 Aliphatics, Adjusted	92.7	93.7	ug/m3	1	30
C9-C12 Aliphatics, Adjusted	75.7	74.8	ug/m3	1	30
C9-C10 Aromatics	ND	ND	ug/m3	NC	30

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0403043

Parameter	% Recovery	QC Criteria
Petroleum Hydrocarbons in Air LCS for sample(s) 01-02 (WG167279)		
1,3-Butadiene	105	
Methyl tert butyl ether	102	
Benzene	109	
Toluene	115	
Ethylbenzene	121	
p/m-Xylene	118	
o-Xylene	119	
Naphthalene	135	
2-Methylnaphthalene	88	
C5-C8 Aliphatics, Adjusted	96	
C9-C12 Aliphatics, Adjusted	92	
C9-C10 Aromatics	120	
Petroleum Hydrocarbons in Air LCS for sample(s) 02 (WG167279)		
Naphthalene	76	

ALPHA ANALYTICAL LABORATORIES
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0403043

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Blank Analysis for sample(s) 01-02 (WG167279-3)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0407 13:20	AR
C5-C8 Aliphatics	ND	ug/m3	24.0				
C9-C12 Aliphatics	ND	ug/m3	28.0				
1,3-Butadiene	ND	ug/m3	2.00				
Methyl tert butyl ether	ND	ug/m3	2.00				
Benzene	ND	ug/m3	2.00				
Toluene	ND	ug/m3	2.00				
Ethylbenzene	ND	ug/m3	2.00				
p/m-Xylene	ND	ug/m3	4.00				
o-Xylene	ND	ug/m3	2.00				
Naphthalene	ND	ug/m3	2.00				
2-Methylnaphthalene	ND	ug/m3	8.00				
C5-C8 Aliphatics, Adjusted	ND	ug/m3	24.0				
C9-C12 Aliphatics, Adjusted	ND	ug/m3	28.0				
C9-C10 Aromatics	ND	ug/m3	24.0				
Blank Analysis for sample(s) 02 (WG167279-5)							
Petroleum Hydrocarbons in Air				43 DRAFT 1		0412 12:52	AR
Naphthalene	ND	ug/m3	2.00				

REFERENCES

43. Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), Draft 1.0, Massachusetts Department of Environmental Protection, February 2000.

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.

Please note that all solid samples are reported on dry weight basis unless noted otherwise.

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.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 4/6/04

ALPHA Job #: L0403043

Client Information

Client: HALEY + ALDRICH
Address: 465 MEDFORD ST
BOSTON MA 02129
Phone: 617 886 7465
Fax: 617 886 7165
Email: ner@haleyaldrich.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: BURBANK SCHOOL
Project Location: BELMONT, MA
Project #: 30660-000
Project Manager: J. MOONEY
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
AIR - 10 DAYS
DISSOLVED GASES - 5 DAYS
Date Due: 4/13/04 Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: _____
Report to: (if different than Project Manager) _____

Billing Information

☑ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed	Program	Criteria

Other Project Specific Requirements/Comments:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Start Time	Collection End Time	Sample Matrix	Sampler's Initials	ID Can	ID - Flow Controller	TO-14A	TO-15	APH	DISSOLVED GASES	FIXED GASES	"Hg START	"Hg END	Sample Comments	TOTAL # CONTAINERS
03043.1	IAQ-STORAGE-05APR04	4/5/04	13:45	1253	AIR	DLD	0196	00290			X			30"	1"		1
2	IAQ-BOILER-05APR04	4/5/04	13:50	1255	AIR	DLD	0230	00316			X			29"	14"		1

ANALYSIS

Shaded Gray Areas For Lab Use Only

Container Type

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.

Relinquished By:	Date/Time	Received By:	Date/Time
Todd Bates	4/6/04 1602		4/6/04 1602
	4/6/04 1630		
	4/6/04 3055	Denise Lachance	4/6/04 3055

Form No: 10-02-AIR

APPENDIX G

Toxicity Profiles

Acenaphthylene (CASRN 208-96-8)

view QuickView

MAIN CONTENTS

Reference Dose for Chronic Oral Exposure (RfD) GO

0443

Acenaphthylene; CASRN 208-96-8

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of chronic toxicity data by U.S. EPA health scientists from several Program Offices and the Office of Research and Development. The summaries presented in Sections I and II represent a consensus reached in the review process. Background information and explanations of the methods used to derive the values given in IRIS are provided in the Background Documents.

STATUS OF DATA FOR Acenaphthylene

File First On-Line 01/01/1991

Category (section)	Status	Last Revised
Oral RfD Assessment (I.A.)	no data	
Inhalation RfC Assessment (I.B.)	no data	
Carcinogenicity Assessment (II.)	on-line	01/01/1991

_I. Chronic Health Hazard Assessments for Noncarcinogenic Effects

_I.A. Reference Dose for Chronic Oral Exposure (RfD)

Substance Name -- Acenaphthylene
CASRN -- 208-96-8

Not available at this time.

Back to top

_I.B. Reference Concentration for Chronic Inhalation Exposure (RfC)

Substance Name -- Acenaphthylene
CASRN -- 208-96-8

Not available at this time.

Back to top

_II. Carcinogenicity Assessment for Lifetime Exposure

Substance Name -- Acenaphthylene
CASRN -- 208-96-8
Last Revised -- 01/01/1991

Section II provides information on three aspects of the carcinogenic assessment for the substance in question; the weight-of-evidence judgment of the likelihood that the substance is a human carcinogen, and quantitative estimates of risk from oral exposure and from inhalation exposure. The quantitative risk estimates are presented in three ways. The slope factor is the result of application of a low-dose extrapolation procedure and is presented as the risk per (mg/kg)/day. The unit risk is the quantitative estimate in terms of either risk per ug/L drinking water or risk per ug/cu.m air breathed. The third form in which risk is presented is a drinking water or air concentration providing cancer risks of 1 in 10,000, 1 in 100,000 or 1 in 1,000,000. The rationale and methods used to develop the carcinogenicity information in IRIS are described in The Risk Assessment Guidelines of 1986 (EPA/600/8-87/045) and in the IRIS Background Document. IRIS summaries developed since the publication of EPA's more recent Proposed Guidelines for Carcinogen Risk Assessment also utilize those Guidelines where indicated (Federal Register 61 (79):17960-18011, April 23, 1996). Users are referred to Section I of this IRIS file for information on long-term toxic effects other than carcinogenicity.

_II.A. Evidence for Human Carcinogenicity

__II.A.1. Weight-of-Evidence Characterization

Classification -- D; not classifiable as to human carcinogenicity

Basis -- Based on no human data and inadequate data from animal bioassays.

__II.A.2. Human Carcinogenicity Data

None.

__II.A.3. Animal Carcinogenicity Data

Inadequate. No tumors were observed in a lifetime study, when 0.25% acenaphthylene (purity not specified) was applied to the skin (dose, frequency and duration not stated) of mice (sex and strain not specified) (Cook, 1932). Survival was 65% at 6 months, and 35% at 1 year. It is not stated whether a control group was used. In the series of experiments, however, the dermal application of other polycyclic aromatic hydrocarbons did result in

the formation of mouse skin tumors.

__II.A.4. Supporting Data for Carcinogenicity

Acenaphthylene (1 mM) yielded positive results in a Salmonella typhimurium forward mutation assay (Kaden et al., 1979) and was not positive in a Salmonella typhimurium TA98 and TA100 in the presence of hepatic homogenates (Bos et al., 1988).

Back to top

_II.B. Quantitative Estimate of Carcinogenic Risk from Oral Exposure

None.

Back to top

_II.C. Quantitative Estimate of Carcinogenic Risk from Inhalation Exposure

None.

Back to top

_II.D. EPA Documentation, Review, and Contacts (Carcinogenicity Assessment)

__II.D.1. EPA Documentation

Source Document -- U.S. EPA, 1990

The 1990 Drinking Water Criteria Document for Polycyclic Aromatic Hydrocarbons has received Agency and external review.

__II.D.2. EPA Review (Carcinogenicity Assessment)

Agency Work Group Review -- 02/07/1990

Verification Date -- 02/07/1990

__II.D.3. EPA Contacts (Carcinogenicity Assessment)

Please contact the IRIS Hotline for all questions concerning this assessment or IRIS, in general, at (202)566-1676 (phone), (202)566-1749 (FAX) or hotline.iris@epa.gov (internet address).

Back to top

_III. [reserved]

_IV. [reserved]
_V. [reserved]

_VI. Bibliography

Substance Name -- Acenaphthylene
CASRN -- 208-96-8
Last Revised -- 01/01/1991

_VI.A. Oral RfD References

None

Back to top

_VI.B. Inhalation RfC References

None

Back to top

_VI.C. Carcinogenicity Assessment References

Bos, R.P., J.L.G. Theuws, F.J. Jongeneelen and P.Th. Henderson. 1988. Mutagenicity of bi-, tri-, and tetra-cyclic aromatic hydrocarbons in the "taped-plate assay" and in the conventional Salmonella mutagenicity assay. Mutat. Res. 204: 203-206.

Cook, J.W. 1932. The production of cancer by pure hydrocarbons -- Part II. Proc. Royal Soc. London S.B. 11: 485-496.

Kaden, D.A., R.A. Hites and W.G. Thilly. 1979. Mutagenicity of soot and associated polycyclic aromatic hydrocarbons to Salmonella typhimurium. Cancer Res. 39: 4152-4159.

U.S. EPA. 1990. Drinking Water Criteria Document for Polycyclic Aromatic Hydrocarbons (PAHs). Prepared by the Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Drinking Water, Washington, DC. (Final Draft)

Back to top

_VII. Revision History

Substance Name -- Acenaphthylene
CASRN -- 208-96-8

Date	Section	Description
01/01/1991	II.	Carcinogen assessment on-line
01/01/1991	VI.	Bibliography on-line
01/01/1992	IV.	Regulatory Action section on-line
04/01/1997	III., IV., V.	Drinking Water Health Advisories, EPA Regulatory Actions, and Supplementary Data were removed from IRIS on or before April 1997. IRIS users were directed to the appropriate EPA Program Offices for this information.

Back to top

_VIII. Synonyms

Substance Name -- Acenaphthylene
CASRN -- 208-96-8
Last Revised -- 01/01/1991

208-96-8
Acenaphthylene
Cyclopenta(de)naphthalene
HSDB 2661
NSC 59821

Back to top