



GEOLOGIC STRATEGIES, P.C.

5316 Deep Valley Run Raleigh, NC 27606

Limited Phase II Environmental Site Assessment (ESA)

at

**The Wood Pile Block A-45 Parcels
E. Hargett St./S. Bloodworth St./E. Martin St.
Raleigh, North Carolina**

Prepared for:

City of Raleigh

June 19, 2013

**LIMITED PHASE II ENVIRONMENTAL ASSESSMENT
THE WOOD PILE BLOCK A-45 PARCELS
E. HARGETT ST./S. BLOODWORTH ST./E. MARTIN ST.
RALEIGH, NORTH CAROLINA**

BACKGROUND

A Phase I Environmental Site Assessment (ESA), dated June 17, 2013, was conducted by *GeoLogix* on subject property consisting of twelve combined parcels of land located in Block A-45 near downtown Raleigh, North Carolina. The subject property is bounded to the north by E. Hargett Street, to the east by S. Bloodworth Street, and to the south by E. Martin Street. A Site Vicinity Map indicating the location of the subject property is contained in Appendix A.

While no release incidents or facilities of concern were identified on the subject property in the Phase I ESA, release incidents were identified on adjacent property across E. Hargett Street to the north where an underground storage tank (UST) at a U. S. Postal Service maintenance facility experienced a release(s) incident. The other release incident occurred at the site of the Moore Square Museums Magnet Middle School to the south/southwest of the subject property across E. Martin Street. In addition to those identified release incidents, the City of Raleigh recently commissioned a Limited Phase II Environmental Site Assessment which was conducted by another consultant on property adjacent to, and west of, the subject property. The Limited Phase II west of the subject property consisted of soil and groundwater sampling on property owned by the Salvation Army.

The Limited Phase II conducted on the Salvation Army property to the west indicated low but detectable concentrations of Perchloroethylene (PCE), a.k.a. "perc" (dry cleaning fluid), and petroleum-related constituents including Benzene, Naphthalene, and MTBE.

As follow-up to the Phase I ESA, and utilizing information resulting from the Limited Phase II on the Salvation Army property, *GeoLogix*, after consultation with City of Raleigh personnel, commenced a Limited Phase II Environmental Site Assessment (ESA) on the subject property. The Limited Phase II ESA was conducted in order to determine, by soil and groundwater sampling, if the soil and/or groundwater on the subject property had been contaminated as a result of the off-site releases identified, and/or by groundwater contamination from an unknown source which may have migrated onto the subject property.

SCOPE OF WORK

The scope of the Limited Phase II ESA included having subsurface utilities marked via the “811” number. Electrical, natural gas, water, and sewer lines were marked. After the subsurface utilities were marked, plans called for five or six groundwater samples and two or three soil samples to be obtained as determined in the field by *GeoLogix* personnel.

FIELD ACTIVITIES and SAMPLING

On June 12, 2013, *GeoLogix* personnel were on site to accomplish the intended scope of work on the subject property. Troxler Geologic Services was contracted to provide a geoprobe necessary to obtain the soil and groundwater samples. The locations of the samples obtained at the subject property are indicated on an aerial photograph in Appendix B.

The first soil and groundwater samples (Sample Nos. S-1 and GW-1) were obtained near the southwest corner of the subject property. Sample No. GW-2 was obtained further north along the western property boundary. Sample No. GW-3 was obtained even further north along the western property boundary. Sample No. GW-4 was obtained from an indentation in the western property boundary adjacent to Salvation Army property on the west, and behind Raleigh Rescue Mission property to the north. Sample Nos. S-5 and GW-5 were obtained from the parking lot in the northwest corner of the subject property near E. Hargett Street. Sample No. GW-6 was obtained from about mid-way down the eastern property boundary adjacent to S. Bloodworth Street. Pictures taken at each of the sampling locations are contained in Appendix C.

The geoprobe operator used new plastic core sample tubes at each location for soil samples. The push probe used to collect groundwater samples was also decontaminated between each sampling location. *GeoLogix* personnel obtained the soil and groundwater samples using clean nitrile gloves at each sample location in order to avoid contaminating the samples, and sample cross-contamination.

The soil and groundwater samples obtained were placed into sample jars and vials containing preservatives as provided by the analytical laboratory. The samples were placed in a cooler containing ice for cooling until they were delivered later that same afternoon to Environmental Conservation Laboratories (ENCO), Inc., for appropriate analyses.

ANALYTICAL LABORATORY RESULTS

The laboratory analytical results for the two soil samples are indicated on the chart below:

Soil Sample ID	Sample Depth (bgs)	Analytical Method	Analytical Results - mg/kg	Laboratory Method Detection Limit (MDL) mg/kg	Practical Quantitation Limit (PQL) mg/kg
S-1	4.0'	8260B	Acetone - 0.012	0.0017	0.0060
S-5	7.0'-8.0'	8260B 8260B DRO	Acetone - 0.017 Methylene Chloride - 0.0030 2.6	0.0018 0.00095 2.0	0.0065 0.0026 3.8

The soil samples indicated trace amounts of Acetone and Methylene Chloride, and a low level of Diesel Range Organic (DRO) constituents. The trace levels of Acetone and Methylene Chloride in the soil samples are common in laboratory analyses and are usually associated with compounds used to clean lab equipment. As such, they are generally discounted and not considered sample contaminants. The low concentration of DRO indicated may be the result of a release identified across E. Hargett Street at the U. S. Post Office facility, or it may have originated at another source.

The lab results for the groundwater samples taken are indicated on the chart below:

Groundwater Sample ID	Sample Depth (bgs)	Analytical Method	Analytical Results – ug/L	Laboratory Method Detection Limit (MDL) ug/L	Practical Quantitation Limit (PQL) ug/L
GW-1	26.0'	8260B	Non-Detect	-	-
GW-2	26.5'	8260B	Tetrachloroethene (PCE) - 4.8 Trichloroethene (TCE) - 1.3	0.17 0.15	1.0 1.0
GW-3	26.5'	8260B “ “ “ “ “	1,1,1-Trichloroethane - 7.2 1,1-Dichloroethane - 1.4 1,1-Dichloroethene - 18.0 Chloroform - 1.2 MTBE - 3.5 Tetrachloroethene (PCE) - 0.92	0.12 0.13 0.21 0.18 0.16 0.17	1.0 1.0 1.0 1.0 1.0 1.0
GW-4	27.0'	8260B “ “ “ “	1,1,1-Trichloroethane - 1.5 1,1-Dichloroethene - 0.94 Chloroform - 2.0 MTBE - 1.2 Acetone - 5.6	0.12 0.21 0.18 0.16 1.2	1.0 1.0 1.0 1.0 5.0
GW-5	32.0'	8260B “ “ “ 8015C	Acetone - 5.7 Benzene - 4.8 Chloroform - 3.9 Naphthalene - 1.2 DRO - 0.083	1.2 0.15 0.18 0.11 0.060	5.0 1.0 1.0 1.0 0.10
GW-6	27.0'	8260B	1,1,1-Trichloroethane - 4.2 1,1-Dichloroethene - 3.4	0.12 0.21	1.0 1.0

Groundwater Sample No. GW-2 exhibited both “dry cleaning” constituents Tetrachloroethene (a.k.a perchloroethylene or PCE) and Trichloroethene (TCE) above detectable levels. Sample No. GW-3 also exhibited a low level of PCE. The levels of Tetrachloroethene (PCE) in Sample Nos. GW-2 and GW-3 were both in excess of its State of North Carolina’s 2L Groundwater Quality Standard of 0.7 ug/L.

Solvents, some of which are similar to dry cleaning fluids (PCE and TCE), or are “broken down” by-products of dry cleaning fluids, were detected in Sample Nos. GW-3, GW-4, and GW-6.

An additive to gasoline called Methyl tert-Butyl Ether (MTBE), was detected in the groundwater Sample Nos. GW-3 and GW-4 at low concentrations. In Sample No. GW-5, petroleum-related constituents were detected including Benzene and Naphthalene. The Benzene detected in Sample No. GW-5 was in excess of its State of North Carolina’s 2L Groundwater Quality Standard of 1.0 ug/L.

Detectable levels of Chloroform were detected in Sample Nos. GW-3, GW-4, and GW-5. Chloroform is commonly detected in areas served by, or previously served by, city water systems where chlorination is used. This is not a contaminant concern.

The analytical results from ENCO laboratories are contained in Appendix D.

CONCLUSIONS and RECOMMENDATIONS

The soil samples obtained at two locations on the subject property in proximity both indicated a low level of Acetone, and Sample No. S-5 indicated a low concentration of Methylene Chloride. Both compounds are discounted as environmental contaminants as they are generally related to residue from cleaning laboratory equipment. The low concentration of DRO detected in Sample No. GW-5 may have resulted from a reported release at the U. S. Post Office facility across E. Hargett Street from the location of Sample No. GW-5, or it could have originated elsewhere.

Analyses of the groundwater samples obtained on the subject property resulted in mixed findings. No analytes were detected in Sample No. GW-1. In Sample No. GW-2, both constituents related to “dry cleaning” fluids, PCE and TCE, were detected. A low concentration of PCE was also detected in Sample No. GW-3 along with other solvents which can result from the break down of PCE and TCE. Also in Sample No. GW-3, Methyl tert-Butyl Ether (MTBE), a gasoline additive, was detected. MTBE and trace solvents were also detected in Sample No. GW-4. In Sample No. GW-5, taken in the northwest corner of the subject property, petroleum constituents were detected such as Benzene and Naphthalene, along with a low level of Diesel Range Organics (DRO). It is possible that the petroleum constituents detected in the groundwater at the location of Sample No. GW-5 is due to migration of petroleum constituents in the groundwater from a release incident identified at the U. S. Post Office maintenance facility directly across E. Hargett Street. The concentration of Benzene in Sample No. GW-5 was in excess of the State of North Carolina’s 2L Groundwater Quality Standard. At the location of Sample No. GW-6, low levels of solvents were detected.

In addition to the above constituents, Chloroform was detected in the groundwater at the locations of Sample Nos. GW-3, GW-4, and GW-5. The reason for Chloroform to be present is not known for certain. However, it is common to find Chloroform in samples in proximity to city water systems where chlorination is used.

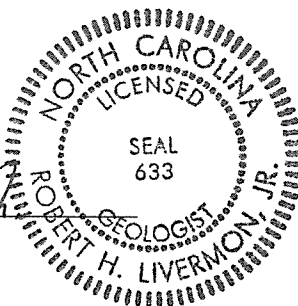
The North Carolina Department of Environment & Natural Resources (DENR) requires reporting of release incidents to the groundwater where contaminants are indicated in excess of the 2L Groundwater Quality Standards. In this instance, that would include PCE, TCE, and Benzene. City of Raleigh entities do not appear to be the source of the contamination detected on the subject property. However, it is recommended that the City of Raleigh, prior to purchasing the subject property, notify N. C. DENR of the release(s) encountered, and/or inform the current subject property owner, The Wood Pile, LLC, that a reportable release(s) has been detected on the subject property that should be reported to N. C. DENR.

This sampling event was associated with a Limited Phase II ESA conducted for the City of Raleigh. No further assessment/investigation of the targeted areas for environmental contaminants as part of the Limited Phase II ESA event is planned or recommended at this time.

The sampling event conducted at the subject property represented an attempt to determine if environmental contaminants existed at the targeted areas. Due to the limited nature of the assessment, there is always the potential that contamination can escape detection due to the limitations of the study or the inaccuracy of information furnished by other parties used to arrive at the conclusions reached in this report. *GeoLogix* is not responsible for any inaccuracy of information furnished by other parties used to arrive at the conclusions reached in this report. The findings contained in this report are relevant to the dates of the site work and should not be relied upon to represent site conditions at other times.



Robert H. Livermon, Jr., P. G.



Appendix A
Site Vicinity Map

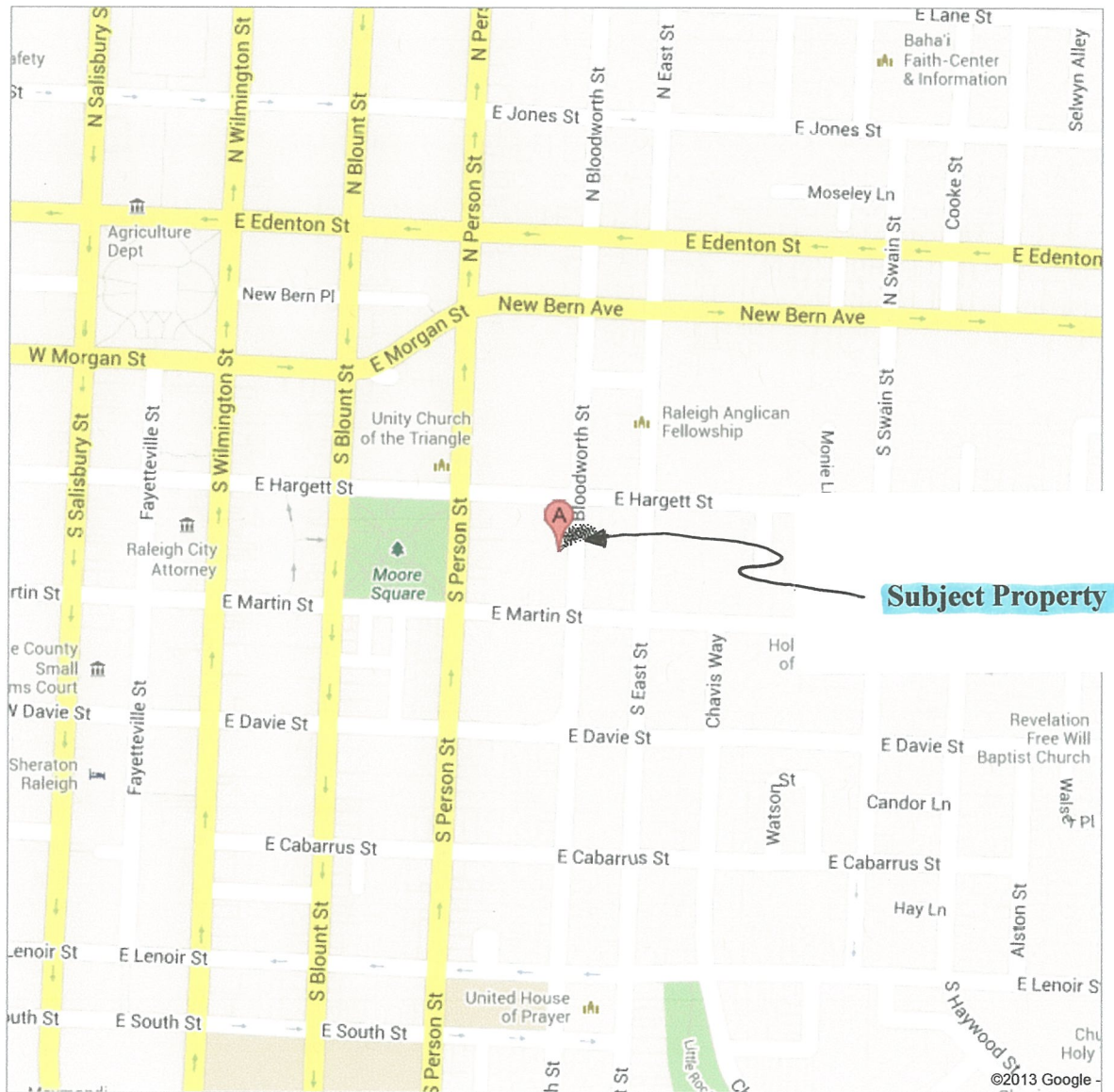


Address **214 S Bloodworth St**
Raleigh, NC 27601

Get Google Maps on your phone

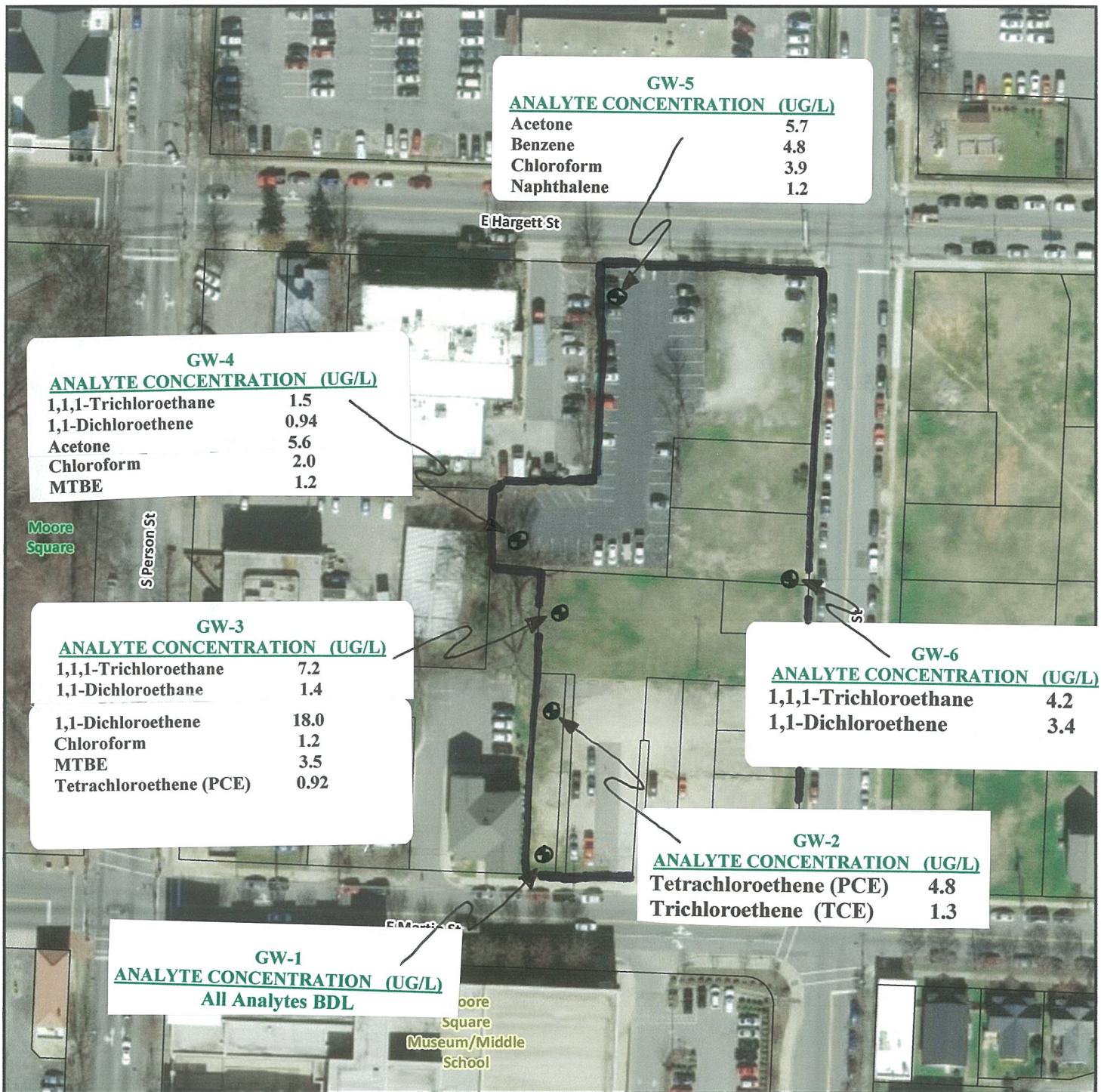


Text the word "GMAPS" to 466453



Appendix B

***Aerial Photograph of Subject Property
Indicating Sampling Locations***



MAP TITLE

Subject Property Boundary –

Sampling Locations -



0 50 100 200 Feet
 1 inch = 100 feet

Disclaimer
 iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied, are provided for the data therein, its use, or its interpretation.

Appendix C

Photographs of Sampling Locations



**Geoprobe at Location of Sample Nos. GW-1 and S-1
Southwest Corner of Subject Property**



**Geoprobe at Location of Sample No. GW-2
Western Boundary of Subject Property**



**Geoprobe at Location of Sample No. GW-3
Western Boundary of Subject Property**



**Geoprobe at Location of Sample No. GW-4
Indented Part of Western Property Line Behind Raleigh Rescue Mission Property**



**Geoprobe at Location of Sample Nos. GW-5 and S-5
Northwest Corner of Subject Property Near E. Hargett Street**



**Geoprobe at Location of Sample No. GW-6
Eastern Property Boundary Near S. Bloodworth Street**

Appendix D

ENCO Analytical Laboratory - Analyses Results

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



www.encolabs.com

Tuesday, June 18, 2013

GEOLOGIX (GE024)

Attn: ROB LIVERMON

5316 DEEP VALLEY RUN

RALEIGH, NC 27606-

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: Wood Pile A-45

ENCO Workorder(s): C306876

Dear ROB LIVERMON,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, June 12, 2013.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephanie Franz". The signature is fluid and cursive, with a large, stylized initial 'S' and 'F'.

Stephanie Franz

Project Manager

Enclosure(s)



www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: GW-1		Lab ID: C306876-01		Sampled: 06/12/13 10:30		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:14		6/14/2013 07:54		

Client ID: GW-2		Lab ID: C306876-02		Sampled: 06/12/13 11:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:14		6/14/2013 08:24		

Client ID: GW-3		Lab ID: C306876-03		Sampled: 06/12/13 12:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:14		6/14/2013 08:54		

Client ID: GW-4		Lab ID: C306876-04		Sampled: 06/12/13 13:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:14		6/14/2013 09:23		

Client ID: GW-5		Lab ID: C306876-05		Sampled: 06/12/13 15:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8015C	06/19/13	07/23/13	06/13/13	08:20	6/15/2013 00:07		
EPA 8260B	06/26/13		06/13/13	20:14	6/14/2013 09:53		

Client ID: GW-6		Lab ID: C306876-06		Sampled: 06/12/13 16:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:14		6/14/2013 10:23		

Client ID: S-1		Lab ID: C306876-07		Sampled: 06/12/13 10:30		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/12/13 15:58		6/13/2013 00:37		

Client ID: S-5		Lab ID: C306876-08		Sampled: 06/12/13 15:00		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8015C	06/26/13	07/23/13	06/13/13	11:29	6/14/2013 14:32		
EPA 8260B	06/26/13		06/12/13	15:58	6/13/2013 01:07		

Client ID: Trip Blank		Lab ID: C306876-09		Sampled: 06/12/13 10:30		Received: 06/12/13 17:42	
Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)		
EPA 8260B	06/26/13		06/13/13 20:02		6/14/2013 10:53		

SAMPLE DETECTION SUMMARY

Client ID: GW-2	Lab ID: C306876-02						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Tetrachloroethene	4.8		0.17	1.0	ug/L	EPA 8260B	
Trichloroethene	1.3		0.15	1.0	ug/L	EPA 8260B	

Client ID: GW-3	Lab ID: C306876-03						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
1,1,1-Trichloroethane	7.2		0.12	1.0	ug/L	EPA 8260B	
1,1-Dichloroethane	1.4		0.13	1.0	ug/L	EPA 8260B	
1,1-Dichloroethene	18		0.21	1.0	ug/L	EPA 8260B	
Chloroform	1.2		0.18	1.0	ug/L	EPA 8260B	
Methyl-tert-Butyl Ether	3.5		0.16	1.0	ug/L	EPA 8260B	
Tetrachloroethene	0.92	J	0.17	1.0	ug/L	EPA 8260B	

Client ID: GW-4	Lab ID: C306876-04						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
1,1,1-Trichloroethane	1.5		0.12	1.0	ug/L	EPA 8260B	
1,1-Dichloroethene	0.94	J	0.21	1.0	ug/L	EPA 8260B	
Acetone	5.6		1.2	5.0	ug/L	EPA 8260B	
Chloroform	2.0		0.18	1.0	ug/L	EPA 8260B	
Methyl-tert-Butyl Ether	1.2		0.16	1.0	ug/L	EPA 8260B	

Client ID: GW-5	Lab ID: C306876-05						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	5.7		1.2	5.0	ug/L	EPA 8260B	
Benzene	4.8		0.15	1.0	ug/L	EPA 8260B	
Chloroform	3.9		0.18	1.0	ug/L	EPA 8260B	
DRO (C10-C28)	0.083	J	0.060	0.10	mg/L	EPA 8015C	
Naphthalene	1.2		0.11	1.0	ug/L	EPA 8260B	

Client ID: GW-6	Lab ID: C306876-06						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
1,1,1-Trichloroethane	4.2		0.12	1.0	ug/L	EPA 8260B	
1,1-Dichloroethene	3.4		0.21	1.0	ug/L	EPA 8260B	

Client ID: S-1	Lab ID: C306876-07						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.012		0.0017	0.0060	mg/kg dry	EPA 8260B	

Client ID: S-5	Lab ID: C306876-08						
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Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Acetone	0.017		0.0018	0.0065	mg/kg dry	EPA 8260B	
DRO (C10-C28)	2.6	J	2.0	3.8	mg/kg dry	EPA 8015C	
Methylene Chloride	0.0030		0.00095	0.0026	mg/kg dry	EPA 8260B	

ANALYTICAL RESULTS

Description: GW-1
Matrix: Water
Project: Wood Pile A-45

Lab Sample ID: C306876-01
Sampled: 06/12/13 10:30
Sampled By: ROB LIVERMON

Received: 06/12/13 17:42
Work Order: C306876

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	



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Description: GW-1

Lab Sample ID: C306876-01

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 10:30

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 07:54	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 07:54	REF	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	39	1	50.0	79 %	51-122	3F13037	EPA 8260B	06/14/13 07:54	REF	
Dibromofluoromethane	44	1	50.0	88 %	68-117	3F13037	EPA 8260B	06/14/13 07:54	REF	
Toluene-d8	42	1	50.0	84 %	67-127	3F13037	EPA 8260B	06/14/13 07:54	REF	



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Description: GW-2

Lab Sample ID: C306876-02

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 11:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Tetrachloroethene [127-18-4] ^	4.8		ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	

FINAL

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Description: GW-2
Matrix: Water
Project: Wood Pile A-45

Lab Sample ID: C306876-02
Sampled: 06/12/13 11:00
Sampled By: ROB LIVERMON

Received: 06/12/13 17:42
Work Order: C306876

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Trichloroethene [79-01-6] ^	1.3		ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 08:24	REF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	39	1	50.0	78 %	51-122	3F13037	EPA 8260B	06/14/13 08:24	REF		
Dibromofluoromethane	45	1	50.0	90 %	68-117	3F13037	EPA 8260B	06/14/13 08:24	REF		
Toluene-d8	42	1	50.0	84 %	67-127	3F13037	EPA 8260B	06/14/13 08:24	REF		



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Description: GW-3

Lab Sample ID: C306876-03

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 12:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	7.2		ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,1-Dichloroethane [75-34-3] ^	1.4		ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,1-Dichloroethene [75-35-4] ^	18		ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Chloroform [67-66-3] ^	1.2		ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	3.5		ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Tetrachloroethene [127-18-4] ^	0.92	J	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	

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Description: GW-3
Matrix: Water
Project: Wood Pile A-45

Lab Sample ID: C306876-03
Sampled: 06/12/13 12:00
Sampled By: ROB LIVERMON

Received: 06/12/13 17:42
Work Order: C306876

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 08:54	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 08:54	REF	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	39	1	50.0	79 %	51-122	3F13037	EPA 8260B	06/14/13 08:54	REF	
Dibromofluoromethane	45	1	50.0	91 %	68-117	3F13037	EPA 8260B	06/14/13 08:54	REF	
Toluene-d8	42	1	50.0	84 %	67-127	3F13037	EPA 8260B	06/14/13 08:54	REF	



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Description: GW-4

Lab Sample ID: C306876-04

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 13:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	1.5		ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,1-Dichloroethene [75-35-4] ^	0.94	J	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Acetone [67-64-1] ^	5.6		ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Chloroform [67-66-3] ^	2.0		ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	1.2		ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	

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Description: GW-4
Matrix: Water
Project: Wood Pile A-45

Lab Sample ID: C306876-04
Sampled: 06/12/13 13:00
Sampled By: ROB LIVERMON

Received: 06/12/13 17:42
Work Order: C306876

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> <u>[CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 09:23	REF	
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>		<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
4-Bromofluorobenzene	40	1	50.0	80 %	51-122		3F13037	EPA 8260B	06/14/13 09:23	REF	
Dibromofluoromethane	46	1	50.0	92 %	68-117		3F13037	EPA 8260B	06/14/13 09:23	REF	
Toluene-d8	42	1	50.0	84 %	67-127		3F13037	EPA 8260B	06/14/13 09:23	REF	



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Description: GW-5

Lab Sample ID: C306876-05

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Acetone [67-64-1] ^	5.7		ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Benzene [71-43-2] ^	4.8		ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Chloroform [67-66-3] ^	3.9		ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Naphthalene [91-20-3] ^	1.2		ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	

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Description: GW-5

Lab Sample ID: C306876-05

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 09:53	REF	
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>		<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
4-Bromofluorobenzene	39	1	50.0	78 %	51-122		3F13037	EPA 8260B	06/14/13 09:53	REF	
Dibromofluoromethane	45	1	50.0	91 %	68-117		3F13037	EPA 8260B	06/14/13 09:53	REF	
Toluene-d8	42	1	50.0	83 %	67-127		3F13037	EPA 8260B	06/14/13 09:53	REF	



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Description: GW-5

Lab Sample ID: C306876-05

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Diesel Range Organics by GC

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [<u>CAS Number</u>]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
DRO (C10-C28) [ECL-0057] ^	0.083	J	mg/L	1	0.060	0.10	3F13006	EPA 8015C	06/15/13 00:07	MSZ	
<u>Surrogates</u>	<u>Results</u>	<u>DF</u>	<u>Spike Lvl</u>	<u>% Rec</u>	<u>% Rec Limits</u>		<u>Batch</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
o-Terphenyl	0.044	1	0.0526	83 %	41-126		3F13006	EPA 8015C	06/15/13 00:07	MSZ	



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Description: GW-6

Lab Sample ID: C306876-06

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 16:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	4.2		ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,1-Dichloroethene [75-35-4] ^	3.4		ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	

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Description: GW-6

Matrix: Water

Project: Wood Pile A-45

Lab Sample ID: C306876-06

Sampled: 06/12/13 16:00

Sampled By: ROB LIVERMON

Received: 06/12/13 17:42

Work Order: C306876

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 10:23	REF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	40	1	50.0	80 %	51-122	3F13037	EPA 8260B	06/14/13 10:23	REF		
Dibromofluoromethane	45	1	50.0	91 %	68-117	3F13037	EPA 8260B	06/14/13 10:23	REF		
Toluene-d8	42	1	50.0	85 %	67-127	3F13037	EPA 8260B	06/14/13 10:23	REF		



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Description: S-1

Lab Sample ID: C306876-07

Received: 06/12/13 17:42

Matrix: Soil

Sampled: 06/12/13 10:30

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

% Solids: 73.8

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.00030	U	mg/kg dry	1	0.00030	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.00024	U	mg/kg dry	1	0.00024	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.00030	U	mg/kg dry	1	0.00030	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,1-Dichloroethane [75-34-3] ^	0.00030	U	mg/kg dry	1	0.00030	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,1-Dichloroethene [75-35-4] ^	0.00036	U	mg/kg dry	1	0.00036	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,1-Dichloropropene [563-58-6] ^	0.00019	U	mg/kg dry	1	0.00019	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.00033	U	mg/kg dry	1	0.00033	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.00076	U	mg/kg dry	1	0.00076	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.00032	U	mg/kg dry	1	0.00032	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.00020	U	mg/kg dry	1	0.00020	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2-Dibromoethane [106-93-4] ^	0.00055	U	mg/kg dry	1	0.00055	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.00032	U	mg/kg dry	1	0.00032	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2-Dichloroethane [107-06-2] ^	0.00049	U	mg/kg dry	1	0.00049	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,2-Dichloropropane [78-87-5] ^	0.00031	U	mg/kg dry	1	0.00031	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.00024	U	mg/kg dry	1	0.00024	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.00026	U	mg/kg dry	1	0.00026	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,3-Dichloropropane [142-28-9] ^	0.00035	U	mg/kg dry	1	0.00035	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.00024	U	mg/kg dry	1	0.00024	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
2,2-Dichloropropane [594-20-7] ^	0.00027	U	mg/kg dry	1	0.00027	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
2-Butanone [78-93-3] ^	0.00093	U	mg/kg dry	1	0.00093	0.0060	3F12027	EPA 8260B	06/13/13 00:37	REF	
2-Chlorotoluene [95-49-8] ^	0.00021	U	mg/kg dry	1	0.00021	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
2-Hexanone [591-78-6] ^	0.00089	U	mg/kg dry	1	0.00089	0.0060	3F12027	EPA 8260B	06/13/13 00:37	REF	
4-Chlorotoluene [106-43-4] ^	0.00031	U	mg/kg dry	1	0.00031	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
4-Isopropyltoluene [99-87-6] ^	0.00019	U	mg/kg dry	1	0.00019	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
4-Methyl-2-pentanone [108-10-1] ^	0.00068	U	mg/kg dry	1	0.00068	0.0060	3F12027	EPA 8260B	06/13/13 00:37	REF	
Acetone [67-64-1] ^	0.012		mg/kg dry	1	0.0017	0.0060	3F12027	EPA 8260B	06/13/13 00:37	REF	
Benzene [71-43-2] ^	0.00020	U	mg/kg dry	1	0.00020	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Bromobenzene [108-86-1] ^	0.00026	U	mg/kg dry	1	0.00026	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Bromochloromethane [74-97-5] ^	0.00049	U	mg/kg dry	1	0.00049	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Bromodichloromethane [75-27-4] ^	0.00029	U	mg/kg dry	1	0.00029	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Bromoform [75-25-2] ^	0.00054	U	mg/kg dry	1	0.00054	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Bromomethane [74-83-9] ^	0.00038	U	mg/kg dry	1	0.00038	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Carbon Tetrachloride [56-23-5] ^	0.00026	U	mg/kg dry	1	0.00026	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Chlorobenzene [108-90-7] ^	0.00020	U	mg/kg dry	1	0.00020	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Chloroethane [75-00-3] ^	0.00030	U	mg/kg dry	1	0.00030	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Chloroform [67-66-3] ^	0.00021	U	mg/kg dry	1	0.00021	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Chloromethane [74-87-3] ^	0.00025	U	mg/kg dry	1	0.00025	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.00027	U	mg/kg dry	1	0.00027	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.00020	U	mg/kg dry	1	0.00020	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Dibromochloromethane [124-48-1] ^	0.00042	U	mg/kg dry	1	0.00042	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Dichlorodifluoromethane [75-71-8] ^	0.00054	U	mg/kg dry	1	0.00054	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Ethylbenzene [100-41-4] ^	0.00024	U	mg/kg dry	1	0.00024	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Isopropyl Ether [108-20-3] ^	0.00021	U	mg/kg dry	1	0.00021	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Isopropylbenzene [98-82-8] ^	0.00018	U	mg/kg dry	1	0.00018	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Methylene Chloride [75-09-2] ^	0.00087	U	mg/kg dry	1	0.00087	0.0024	3F12027	EPA 8260B	06/13/13 00:37	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.00036	U	mg/kg dry	1	0.00036	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Naphthalene [91-20-3] ^	0.00032	U	mg/kg dry	1	0.00032	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
n-Butyl Benzene [104-51-8] ^	0.00016	U	mg/kg dry	1	0.00016	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
n-Propyl Benzene [103-65-1] ^	0.00021	U	mg/kg dry	1	0.00021	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
sec-Butylbenzene [135-98-8] ^	0.0011	U	mg/kg dry	1	0.0011	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Styrene [100-42-5] ^	0.0012	U	mg/kg dry	1	0.0012	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
tert-Butylbenzene [98-06-6] ^	0.00020	U	mg/kg dry	1	0.00020	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Tetrachloroethene [127-18-4] ^	0.00033	U	mg/kg dry	1	0.00033	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Toluene [108-88-3] ^	0.00029	U	mg/kg dry	1	0.00029	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.00044	U	mg/kg dry	1	0.00044	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	

FINAL

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Description: S-1

Lab Sample ID: C306876-07

Received: 06/12/13 17:42

Matrix: Soil

Sampled: 06/12/13 10:30

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

% Solids: 73.8

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.00047	U	mg/kg dry	1	0.00047	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Trichloroethene [79-01-6] ^	0.00038	U	mg/kg dry	1	0.00038	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Trichlorofluoromethane [75-69-4] ^	0.00031	U	mg/kg dry	1	0.00031	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Vinyl acetate [108-05-4] ^	0.00056	U	mg/kg dry	1	0.00056	0.0060	3F12027	EPA 8260B	06/13/13 00:37	REF	
Vinyl chloride [75-01-4] ^	0.00029	U	mg/kg dry	1	0.00029	0.0012	3F12027	EPA 8260B	06/13/13 00:37	REF	
Xylenes (Total) [1330-20-7] ^	0.00067	U	mg/kg dry	1	0.00067	0.0036	3F12027	EPA 8260B	06/13/13 00:37	REF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	37	1	50.0	73 %	61-118	3F12027	EPA 8260B	06/13/13 00:37	REF		
Dibromofluoromethane	40	1	50.0	81 %	66-114	3F12027	EPA 8260B	06/13/13 00:37	REF		
Toluene-d8	39	1	50.0	77 %	63-118	3F12027	EPA 8260B	06/13/13 00:37	REF		



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Description: S-5

Lab Sample ID: C306876-08

Received: 06/12/13 17:42

Matrix: Soil

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

% Solids: 86.2

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.00033	U	mg/kg dry	1	0.00033	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.00026	U	mg/kg dry	1	0.00026	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.00033	U	mg/kg dry	1	0.00033	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,1-Dichloroethane [75-34-3] ^	0.00033	U	mg/kg dry	1	0.00033	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,1-Dichloroethene [75-35-4] ^	0.00039	U	mg/kg dry	1	0.00039	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,1-Dichloropropene [563-58-6] ^	0.00021	U	mg/kg dry	1	0.00021	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.00037	U	mg/kg dry	1	0.00037	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.00083	U	mg/kg dry	1	0.00083	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.00035	U	mg/kg dry	1	0.00035	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.00022	U	mg/kg dry	1	0.00022	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2-Dibromoethane [106-93-4] ^	0.00060	U	mg/kg dry	1	0.00060	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.00035	U	mg/kg dry	1	0.00035	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2-Dichloroethane [107-06-2] ^	0.00053	U	mg/kg dry	1	0.00053	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,2-Dichloropropane [78-87-5] ^	0.00034	U	mg/kg dry	1	0.00034	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.00026	U	mg/kg dry	1	0.00026	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.00029	U	mg/kg dry	1	0.00029	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,3-Dichloropropane [142-28-9] ^	0.00038	U	mg/kg dry	1	0.00038	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.00026	U	mg/kg dry	1	0.00026	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
2,2-Dichloropropane [594-20-7] ^	0.00030	U	mg/kg dry	1	0.00030	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
2-Butanone [78-93-3] ^	0.0010	U	mg/kg dry	1	0.0010	0.0065	3F12027	EPA 8260B	06/13/13 01:07	REF	
2-Chlorotoluene [95-49-8] ^	0.00023	U	mg/kg dry	1	0.00023	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
2-Hexanone [591-78-6] ^	0.00098	U	mg/kg dry	1	0.00098	0.0065	3F12027	EPA 8260B	06/13/13 01:07	REF	
4-Chlorotoluene [106-43-4] ^	0.00034	U	mg/kg dry	1	0.00034	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
4-Isopropyltoluene [99-87-6] ^	0.00021	U	mg/kg dry	1	0.00021	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
4-Methyl-2-pentanone [108-10-1] ^	0.00074	U	mg/kg dry	1	0.00074	0.0065	3F12027	EPA 8260B	06/13/13 01:07	REF	
Acetone [67-64-1] ^	0.017		mg/kg dry	1	0.0018	0.0065	3F12027	EPA 8260B	06/13/13 01:07	REF	
Benzene [71-43-2] ^	0.00022	U	mg/kg dry	1	0.00022	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Bromobenzene [108-86-1] ^	0.00029	U	mg/kg dry	1	0.00029	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Bromochloromethane [74-97-5] ^	0.00053	U	mg/kg dry	1	0.00053	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Bromodichloromethane [75-27-4] ^	0.00031	U	mg/kg dry	1	0.00031	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Bromoform [75-25-2] ^	0.00059	U	mg/kg dry	1	0.00059	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Bromomethane [74-83-9] ^	0.00042	U	mg/kg dry	1	0.00042	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Carbon Tetrachloride [56-23-5] ^	0.00029	U	mg/kg dry	1	0.00029	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Chlorobenzene [108-90-7] ^	0.00022	U	mg/kg dry	1	0.00022	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Chloroethane [75-00-3] ^	0.00033	U	mg/kg dry	1	0.00033	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Chloroform [67-66-3] ^	0.00023	U	mg/kg dry	1	0.00023	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Chloromethane [74-87-3] ^	0.00027	U	mg/kg dry	1	0.00027	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.00030	U	mg/kg dry	1	0.00030	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.00022	U	mg/kg dry	1	0.00022	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Dibromochloromethane [124-48-1] ^	0.00046	U	mg/kg dry	1	0.00046	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Dichlorodifluoromethane [75-71-8] ^	0.00059	U	mg/kg dry	1	0.00059	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Ethylbenzene [100-41-4] ^	0.00026	U	mg/kg dry	1	0.00026	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Isopropyl Ether [108-20-3] ^	0.00023	U	mg/kg dry	1	0.00023	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Isopropylbenzene [98-82-8] ^	0.00020	U	mg/kg dry	1	0.00020	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Methylene Chloride [75-09-2] ^	0.0030		mg/kg dry	1	0.00095	0.0026	3F12027	EPA 8260B	06/13/13 01:07	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.00039	U	mg/kg dry	1	0.00039	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Naphthalene [91-20-3] ^	0.00035	U	mg/kg dry	1	0.00035	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
n-Butyl Benzene [104-51-8] ^	0.00017	U	mg/kg dry	1	0.00017	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
n-Propyl Benzene [103-65-1] ^	0.00023	U	mg/kg dry	1	0.00023	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
sec-Butylbenzene [135-98-8] ^	0.0012	U	mg/kg dry	1	0.0012	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Styrene [100-42-5] ^	0.0013	U	mg/kg dry	1	0.0013	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
tert-Butylbenzene [98-06-6] ^	0.00022	U	mg/kg dry	1	0.00022	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Tetrachloroethene [127-18-4] ^	0.00037	U	mg/kg dry	1	0.00037	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Toluene [108-88-3] ^	0.00031	U	mg/kg dry	1	0.00031	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.00048	U	mg/kg dry	1	0.00048	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	

FINAL

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Description: S-5

Lab Sample ID: C306876-08

Received: 06/12/13 17:42

Matrix: Soil

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

% Solids: 86.2

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.00051	U	mg/kg dry	1	0.00051	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Trichloroethene [79-01-6] ^	0.00042	U	mg/kg dry	1	0.00042	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Trichlorofluoromethane [75-69-4] ^	0.00034	U	mg/kg dry	1	0.00034	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Vinyl acetate [108-05-4] ^	0.00061	U	mg/kg dry	1	0.00061	0.0065	3F12027	EPA 8260B	06/13/13 01:07	REF	
Vinyl chloride [75-01-4] ^	0.00031	U	mg/kg dry	1	0.00031	0.0013	3F12027	EPA 8260B	06/13/13 01:07	REF	
Xylenes (Total) [1330-20-7] ^	0.00073	U	mg/kg dry	1	0.00073	0.0039	3F12027	EPA 8260B	06/13/13 01:07	REF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	35	1	50.0	70 %	61-118	3F12027	EPA 8260B	06/13/13 01:07	REF		
Dibromofluoromethane	40	1	50.0	79 %	66-114	3F12027	EPA 8260B	06/13/13 01:07	REF		
Toluene-d8	38	1	50.0	77 %	63-118	3F12027	EPA 8260B	06/13/13 01:07	REF		



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Description: S-5

Lab Sample ID: C306876-08

Received: 06/12/13 17:42

Matrix: Soil

Sampled: 06/12/13 15:00

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ROB LIVERMON

% Solids: 86.2

Diesel Range Organics by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
DRO (C10-C28) [ECL-0057] ^	2.6	J	mg/kg dry	1	2.0	3.8	3F13019	EPA 8015C	06/14/13 14:32	MSZ	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
o-Terphenyl	1.8	1	1.93	91 %	51-138	3F13019	EPA 8015C	06/14/13 14:32	MSZ		



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Description: Trip Blank

Lab Sample ID: C306876-09

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 10:30

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2,3-Trichlorobenzene [87-61-6] ^	0.012	U	ug/L	1	0.012	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2,4-Trimethylbenzene [95-63-6] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,3,5-Trimethylbenzene [108-67-8] ^	0.30	U	ug/L	1	0.30	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
2-Chlorotoluene [95-49-8] ^	0.081	U	ug/L	1	0.081	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
4-Chlorotoluene [106-43-4] ^	0.068	U	ug/L	1	0.068	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
4-Isopropyltoluene [99-87-6] ^	0.085	U	ug/L	1	0.085	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Bromobenzene [108-86-1] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Isopropyl Ether [108-20-3] ^	0.054	U	ug/L	1	0.054	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Isopropylbenzene [98-82-8] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.16	U	ug/L	1	0.16	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
n-Butyl Benzene [104-51-8] ^	0.058	U	ug/L	1	0.058	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
n-Propyl Benzene [103-65-1] ^	0.12	U	ug/L	1	0.12	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
sec-Butylbenzene [135-98-8] ^	0.10	U	ug/L	1	0.10	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
tert-Butylbenzene [98-06-6] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	

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Description: Trip Blank

Lab Sample ID: C306876-09

Received: 06/12/13 17:42

Matrix: Water

Sampled: 06/12/13 10:30

Work Order: C306876

Project: Wood Pile A-45

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	3F13037	EPA 8260B	06/14/13 10:53	REF	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	41	1	50.0	82 %	51-122	3F13037	EPA 8260B	06/14/13 10:53	REF		
Dibromofluoromethane	48	1	50.0	95 %	68-117	3F13037	EPA 8260B	06/14/13 10:53	REF		
Toluene-d8	44	1	50.0	87 %	67-127	3F13037	EPA 8260B	06/14/13 10:53	REF		

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 3F12027 - EPA 5035_MS

Blank (3F12027-BLK1)

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 15:41

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1-Trichloroethane	0.00025	U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.00020	U	0.0010	mg/kg wet							
1,1,2-Trichloroethane	0.00025	U	0.0010	mg/kg wet							
1,1-Dichloroethane	0.00025	U	0.0010	mg/kg wet							
1,1-Dichloroethene	0.00030	U	0.0010	mg/kg wet							
1,1-Dichloropropene	0.00016	U	0.0010	mg/kg wet							
1,2,3-Trichlorobenzene	0.00028	U	0.0010	mg/kg wet							
1,2,3-Trichloropropane	0.00064	U	0.0010	mg/kg wet							
1,2,4-Trichlorobenzene	0.00027	U	0.0010	mg/kg wet							
1,2,4-Trimethylbenzene	0.00017	U	0.0010	mg/kg wet							
1,2-Dibromoethane	0.00046	U	0.0010	mg/kg wet							
1,2-Dichlorobenzene	0.00027	U	0.0010	mg/kg wet							
1,2-Dichloroethane	0.00041	U	0.0010	mg/kg wet							
1,2-Dichloropropane	0.00026	U	0.0010	mg/kg wet							
1,3,5-Trimethylbenzene	0.00020	U	0.0010	mg/kg wet							
1,3-Dichlorobenzene	0.00022	U	0.0010	mg/kg wet							
1,3-Dichloropropane	0.00029	U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.00020	U	0.0010	mg/kg wet							
2,2-Dichloropropane	0.00023	U	0.0010	mg/kg wet							
2-Butanone	0.00078	U	0.0050	mg/kg wet							
2-Chlorotoluene	0.00018	U	0.0010	mg/kg wet							
2-Hexanone	0.00075	U	0.0050	mg/kg wet							
4-Chlorotoluene	0.00026	U	0.0010	mg/kg wet							
4-Isopropyltoluene	0.00016	U	0.0010	mg/kg wet							
4-Methyl-2-pentanone	0.00057	U	0.0050	mg/kg wet							
Acetone	0.0014	U	0.0050	mg/kg wet							
Benzene	0.00017	U	0.0010	mg/kg wet							
Bromobenzene	0.00022	U	0.0010	mg/kg wet							
Bromochloromethane	0.00041	U	0.0010	mg/kg wet							
Bromodichloromethane	0.00024	U	0.0010	mg/kg wet							
Bromoform	0.00045	U	0.0010	mg/kg wet							
Bromomethane	0.00032	U	0.0010	mg/kg wet							
Carbon Tetrachloride	0.00022	U	0.0010	mg/kg wet							
Chlorobenzene	0.00017	U	0.0010	mg/kg wet							
Chloroethane	0.00025	U	0.0010	mg/kg wet							
Chloroform	0.00018	U	0.0010	mg/kg wet							
Chloromethane	0.00021	U	0.0010	mg/kg wet							
cis-1,2-Dichloroethene	0.00023	U	0.0010	mg/kg wet							
cis-1,3-Dichloropropene	0.00017	U	0.0010	mg/kg wet							
Dibromochloromethane	0.00035	U	0.0010	mg/kg wet							
Dichlorodifluoromethane	0.00045	U	0.0010	mg/kg wet							
Ethylbenzene	0.00020	U	0.0010	mg/kg wet							
Isopropyl Ether	0.00018	U	0.0010	mg/kg wet							
Isopropylbenzene	0.00015	U	0.0010	mg/kg wet							
Methylene Chloride	0.00073	U	0.0020	mg/kg wet							
Methyl-tert-Butyl Ether	0.00030	U	0.0010	mg/kg wet							
Naphthalene	0.00027	U	0.0010	mg/kg wet							
n-Butyl Benzene	0.00013	U	0.0010	mg/kg wet							
n-Propyl Benzene	0.00018	U	0.0010	mg/kg wet							
sec-Butylbenzene	0.00095	U	0.0010	mg/kg wet							
Styrene	0.00098	U	0.0010	mg/kg wet							
tert-Butylbenzene	0.00017	U	0.0010	mg/kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 3F12027 - EPA 5035_MS

Blank (3F12027-BLK1) Continued

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 15:41

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Tetrachloroethene	0.00028	U	0.0010	mg/kg wet							
Toluene	0.00024	U	0.0010	mg/kg wet							
trans-1,2-Dichloroethene	0.00037	U	0.0010	mg/kg wet							
trans-1,3-Dichloropropene	0.00039	U	0.0010	mg/kg wet							
Trichloroethene	0.00032	U	0.0010	mg/kg wet							
Trichlorofluoromethane	0.00026	U	0.0010	mg/kg wet							
Vinyl acetate	0.00047	U	0.0050	mg/kg wet							
Vinyl chloride	0.00024	U	0.0010	mg/kg wet							
Xylenes (Total)	0.00056	U	0.0030	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	35			ug/L	50.0		69	61-118			
Surrogate: Dibromofluoromethane	41			ug/L	50.0		82	66-114			
Surrogate: Toluene-d8	38			ug/L	50.0		76	63-118			

LCS (3F12027-BS1)

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 16:11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.025		0.0010	mg/kg wet	0.0200		125	64-133			
Benzene	0.022		0.0010	mg/kg wet	0.0200		112	79-129			
Chlorobenzene	0.020		0.0010	mg/kg wet	0.0200		102	79-121			
Toluene	0.020		0.0010	mg/kg wet	0.0200		99	77-120			
Trichloroethene	0.022		0.0010	mg/kg wet	0.0200		109	78-118			
Surrogate: 4-Bromofluorobenzene	36			ug/L	50.0		72	61-118			
Surrogate: Dibromofluoromethane	41			ug/L	50.0		82	66-114			
Surrogate: Toluene-d8	40			ug/L	50.0		81	63-118			

Matrix Spike (3F12027-MS1)

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 16:41

Source: C307048-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.025		0.0010	mg/kg wet	0.0200	0.00030 U	125	64-133			
Benzene	0.023		0.0010	mg/kg wet	0.0200	0.00017 U	115	79-129			
Chlorobenzene	0.021		0.0010	mg/kg wet	0.0200	0.00017 U	106	79-121			
Toluene	0.020		0.0010	mg/kg wet	0.0200	0.00024 U	101	77-120			
Trichloroethene	0.023		0.0010	mg/kg wet	0.0200	0.00032 U	114	78-118			
Surrogate: 4-Bromofluorobenzene	35			ug/L	50.0		70	61-118			
Surrogate: Dibromofluoromethane	40			ug/L	50.0		80	66-114			
Surrogate: Toluene-d8	40			ug/L	50.0		80	63-118			

Matrix Spike Dup (3F12027-MSD1)

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 17:11

Source: C307048-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	0.024		0.0010	mg/kg wet	0.0200	0.00030 U	122	64-133	3	23	
Benzene	0.022		0.0010	mg/kg wet	0.0200	0.00017 U	111	79-129	3	23	
Chlorobenzene	0.021		0.0010	mg/kg wet	0.0200	0.00017 U	104	79-121	2	25	
Toluene	0.020		0.0010	mg/kg wet	0.0200	0.00024 U	99	77-120	2	23	
Trichloroethene	0.022		0.0010	mg/kg wet	0.0200	0.00032 U	108	78-118	5	24	
Surrogate: 4-Bromofluorobenzene	37			ug/L	50.0		74	61-118			
Surrogate: Dibromofluoromethane	41			ug/L	50.0		82	66-114			



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QUALITY CONTROL**Volatile Organic Compounds by GCMS - Quality Control**

Batch 3F12027 - EPA 5035_MS

Matrix Spike Dup (3F12027-MSD1) Continued

Prepared: 06/12/2013 12:58 Analyzed: 06/12/2013 17:11

Source: C307048-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Toluene-d8	41			ug/L	50.0		81	63-118			

Batch 3F13037 - EPA 5030B_MS

Blank (3F13037-BLK1)

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 05:25

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichlorobenzene	0.012	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2,4-Trimethylbenzene	0.10	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3,5-Trimethylbenzene	0.30	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Chlorotoluene	0.081	U	1.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Chlorotoluene	0.068	U	1.0	ug/L							
4-Isopropyltoluene	0.085	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromobenzene	0.16	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Isopropyl Ether	0.054	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 3F13037 - EPA 5030B_MS

Blank (3F13037-BLK1) Continued

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 05:25

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Isopropylbenzene	0.14	U	1.0	ug/L							
Methylene chloride	0.23	U	1.0	ug/L							
Methyl-tert-Butyl Ether	0.16	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
n-Butyl Benzene	0.058	U	1.0	ug/L							
n-Propyl Benzene	0.12	U	1.0	ug/L							
sec-Butylbenzene	0.10	U	1.0	ug/L							
Styrene	0.11	U	1.0	ug/L							
tert-Butylbenzene	0.17	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	40			ug/L	50.0		81	51-122			
Surrogate: Dibromofluoromethane	47			ug/L	50.0		94	68-117			
Surrogate: Toluene-d8	44			ug/L	50.0		87	67-127			

LCS (3F13037-BS1)

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 05:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0		111	75-133			
Benzene	22		1.0	ug/L	20.0		108	81-134			
Chlorobenzene	21		1.0	ug/L	20.0		106	83-117			
Toluene	21		1.0	ug/L	20.0		103	71-118			
Trichloroethene	22		1.0	ug/L	20.0		108	74-119			
Surrogate: 4-Bromofluorobenzene	41			ug/L	50.0		81	51-122			
Surrogate: Dibromofluoromethane	45			ug/L	50.0		91	68-117			
Surrogate: Toluene-d8	44			ug/L	50.0		89	67-127			

Matrix Spike (3F13037-MS1)

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 06:25

Source: C306035-11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.21 U	120	75-133			
Benzene	23		1.0	ug/L	20.0	0.15 U	113	81-134			
Chlorobenzene	22		1.0	ug/L	20.0	0.17 U	111	83-117			
Toluene	22		1.0	ug/L	20.0	0.14 U	108	71-118			
Trichloroethene	22		1.0	ug/L	20.0	0.15 U	112	74-119			
Surrogate: 4-Bromofluorobenzene	41			ug/L	50.0		82	51-122			
Surrogate: Dibromofluoromethane	44			ug/L	50.0		89	68-117			
Surrogate: Toluene-d8	43			ug/L	50.0		87	67-127			

Matrix Spike Dup (3F13037-MSD1)

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 06:55

Source: C306035-11

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 3F13037 - EPA 5030B_MS

Matrix Spike Dup (3F13037-MSD1) Continued

Prepared: 06/13/2013 20:14 Analyzed: 06/14/2013 06:55

Source: C306035-11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.21 U	112	75-133	8	20	
Benzene	21		1.0	ug/L	20.0	0.15 U	107	81-134	5	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.17 U	106	83-117	5	16	
Toluene	21		1.0	ug/L	20.0	0.14 U	103	71-118	5	17	
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	106	74-119	5	22	
Surrogate: 4-Bromofluorobenzene	40			ug/L	50.0		81	51-122			
Surrogate: Dibromofluoromethane	43			ug/L	50.0		86	68-117			
Surrogate: Toluene-d8	43			ug/L	50.0		86	67-127			

Diesel Range Organics by GC - Quality Control

Batch 3F13006 - EPA 3510C

Blank (3F13006-BLK1)

Prepared: 06/13/2013 08:20 Analyzed: 06/14/2013 19:10

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	0.060	U	0.10	mg/L							
Surrogate: o-Terphenyl	0.043			mg/L	0.0500		86	41-126			

LCS (3F13006-BS1)

Prepared: 06/13/2013 08:20 Analyzed: 06/14/2013 19:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	0.70		0.10	mg/L	1.00		70	10-108			
Surrogate: o-Terphenyl	0.049			mg/L	0.0500		98	41-126			

Matrix Spike (3F13006-MS1)

Prepared: 06/13/2013 08:20 Analyzed: 06/14/2013 20:09

Source: C307155-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	0.61		0.10	mg/L	1.00	0.060 U	61	10-108			
Surrogate: o-Terphenyl	0.046			mg/L	0.0500		92	41-126			

Matrix Spike Dup (3F13006-MSD1)

Prepared: 06/13/2013 08:20 Analyzed: 06/14/2013 20:39

Source: C307155-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	0.65		0.10	mg/L	1.00	0.060 U	65	10-108	6	25	
Surrogate: o-Terphenyl	0.047			mg/L	0.0500		93	41-126			

Batch 3F13019 - EPA 3550C

Blank (3F13019-BLK1)

Prepared: 06/13/2013 11:29 Analyzed: 06/14/2013 12:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	1.7	U	3.3	mg/kg wet							
Surrogate: o-Terphenyl	1.5			mg/kg wet	1.67		89	51-138			

LCS (3F13019-BS1)

Prepared: 06/13/2013 11:29 Analyzed: 06/14/2013 13:02

QUALITY CONTROL

Diesel Range Organics by GC - Quality Control

Batch 3F13019 - EPA 3550C

LCS (3F13019-BS1) Continued

Prepared: 06/13/2013 11:29 Analyzed: 06/14/2013 13:02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	30		3.3	mg/kg wet	33.3		91	37-116			
Surrogate: o-Terphenyl	1.8			mg/kg wet	1.67		110	51-138			

Matrix Spike (3F13019-MS1)

Prepared: 06/13/2013 11:29 Analyzed: 06/14/2013 13:32

Source: C306876-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	36		3.8	mg/kg dry	38.7	2.6	86	37-116			
Surrogate: o-Terphenyl	2.3			mg/kg dry	1.93		119	51-138			

Matrix Spike Dup (3F13019-MSD1)

Prepared: 06/13/2013 11:29 Analyzed: 06/14/2013 14:02

Source: C306876-08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
DRO (C10-C28)	34		3.8	mg/kg dry	38.7	2.6	81	37-116	6	45	
Surrogate: o-Terphenyl	2.2			mg/kg dry	1.93		112	51-138			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.



ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Client Name	GEOLOGIX (GE024)	
Address	5316 DEEP VALLEY RUN	
City/ST/Zip	RALEIGH, NC 27606-	
Tel	(919) 859-4544	Fax
Reporting Contact	ROB LIVERMON	
Billing Contact	Accounts Payable	
Site Location / Time Zone		
Project Number	[none]	
Project Name/Desc	Wood Pile A-45	
PO # / Billing Info		
Relinquished By	Robert H. Livermon, Jr. (Geologist)	
Relinquished By	Robert H. Livermon, Jr.	

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	%Solids	%Solids DRO 8015C	8260B, 8260B Extended	Preservation (See Codes) (Combine as necessary)	Requested Analyses	Requested Turnaround Times
	GW-1	6/12/13	1030	G	WA	3			X			Standard
	GW-2		1100	G	WA	3			X			Expedited
	GW-3		1200	G	WA	3			X			
	GW-4		1300	G	WA	3			X			
	GW-5		1500	G	WA	5			X			
	GW-6		1600	G	WA	3			X			
	S-1		1030	G	SO	4	X		X			
	S-5		1500	G	SO	5	X		X			
	Trip Blank				WA	2			X			

Sample Kit Prepared By	ME	Date/Time	6/17/13
Comments/Special Reporting Requirements	3-Day turnaround OK'd by Stephanie		
Relinquished By	Robert H. Livermon	Date/Time	6/12/13 1745
Relinquished By		Date/Time	
Relinquished By		Date/Time	
Cooler #'s & Temps on Receipt	C-800	Condition Upon Receipt	Acceptable
Unacceptable			

attix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)
Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

Appendix E

GeoLogix - Qualifications of Personnel



GEOLOGIC STRATEGIES, P.C.

5316 Deep Valley Run Raleigh, NC 27606

GeoLogix/Geologic Strategies, P. C.

Qualifications of Environmental Professionals

Principal: Robert H. Livermon, Jr.

Education: North Carolina State University (B. S. - Geology, 1973)

Licenses: N. C. Board for Licensing of Geologists - **Professional Geologist**, License No. 633

Geologic Strategies, P. C. – **N. C. Professional Geological Corporation**, License No. C-419

Certifications: - **Registered Environmental Manager** No. 9963 - National Registry of Environmental Professionals

- **40-Hour Hazwopper Certified**

The principal of *GeoLogix* has over thirty (30) years of experience in the environmental field. During twenty-two (22) plus years of employment with a local utility, Mr. Livermon performed environmental site assessments for eight (8) years, and waste disposal vendor compliance audits/reviews for twelve (12) years.

Mr. Livermon is experienced in the areas of Phase I Environmental Site Assessments (ESA), site remediation/spill clean-ups, Spill Prevention Control and Countermeasure (SPCC) Plan preparation, environmental permitting, solid waste disposal, waste minimization, and the transportation, storage, treatment/disposal of hazardous substances, toxic substances, and hazardous wastes. Mr. Livermon possesses an across-the-board knowledge of environmental regulations which, along with his years of experience, allows him to perform multi-media environmental compliance audits at commercial/industrial facilities, maintenance facilities, warehouses and garages. Mr. Livermon also has experience in the environmental regulatory area. He was employed for over two years with an environmental agency of the State of North Carolina.

GeoLogix has provided clients with a variety of environmental and geological consulting services since 1995. Over five hundred fifty (550) Phase I Environmental Site Assessments, seventy-five (75) Phase II Environmental Site Assessments or similar site investigations/assessments, forty (40) Underground Storage Tank (UST) closures/site investigations, and one hundred twenty-five (125) waste disposal vendor environmental compliance reviews have been conducted. *GeoLogix* capabilities also include management oversight services (remedial projects), toxic and hazardous waste training, geological consulting services, and other miscellaneous tasks.