ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 15, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2032833**
Purchase Order:	**102238**	Workorder ID:	**14441B-901 H Street**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Monday, October 6, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2032833 14441B-901 H Street

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2032833001	B-1	Solid	10/6/2014 10:00	10/6/2014 18:56	Jamie Baltimore
2032833002	B-5	Solid	10/3/2014 09:00	10/6/2014 18:56	Jamie Baltimore
2032833003	B-6	Solid	10/2/2014 09:50	10/6/2014 18:56	Jamie Baltimore

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	13.3	SW846 8015D	10/7/14	RMP	10/8/14 22:36	EGO	A
Gasoline Range Organics	ND		ug/kg	12200	SW846 8015D	10/6/14	DD	10/10/14 03:32	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	124		%	72 - 134	SW846 8015D	10/6/14	DD	10/10/14 03:32	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	53.3		%	38 - 118	SW846 8015D	10/7/14	RMP	10/8/14 22:36	EGO	A
VOLATILE ORGANICS										
Acetone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Benzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromochloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromodichloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromoform	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromomethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
2-Butanone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Carbon Disulfide	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chlorodibromomethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloroethane	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloroform	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Cyclohexane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,4-Dioxane	ND		ug/kg	92.2	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Ethylbenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Freon 113	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
2-Hexanone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Isopropylbenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl acetate	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl cyclohexane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methylene Chloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Styrene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Tetrachloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Toluene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Trichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Vinyl Chloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
o-Xylene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
mp-Xylene	ND		ug/kg	4.9	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.3		%	56 - 124	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Dibromofluoromethane (S)	110		%	62 - 123	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
WET CHEMISTRY										
Moisture	25.1		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	74.9		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	ND		mg/kg	2.0	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Barium, Total	27.2		mg/kg	3.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.67	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Chromium, Total	8.3		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Iron, Total	4680		mg/kg	12.6	SW846 6010C	10/7/14	AAM	10/8/14 06:56	TSS	A2
Lead, Total	2.6		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Mercury, Total	ND		mg/kg	0.058	SW846 7471B	10/14/14	MNP	10/14/14 14:31	MNP	A5
Selenium, Total	ND		mg/kg	3.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Lead, Total	0.027		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:01	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	12.7	SW846 8015D	10/7/14	RMP	10/8/14 23:13	EGO	A
Gasoline Range Organics	ND		ug/kg	7650	SW846 8015D	10/3/14	DD	10/10/14 04:09	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	107		%	72 - 134	SW846 8015D	10/3/14	DD	10/10/14 04:09	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	68.3		%	38 - 118	SW846 8015D	10/7/14	RMP	10/8/14 23:13	EGO	A
VOLATILE ORGANICS										
Acetone	12.4		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Benzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromochloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromodichloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromoform	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromomethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
2-Butanone	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Carbon Disulfide	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chlorodibromomethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloroethane	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloroform	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Cyclohexane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,4-Dioxane	ND		ug/kg	80.2	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Ethylbenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Freon 113	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
2-Hexanone	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Isopropylbenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl acetate	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl cyclohexane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methylene Chloride	3.6		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Styrene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Tetrachloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Toluene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Trichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Vinyl Chloride	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
o-Xylene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
mp-Xylene	ND		ug/kg	4.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.5		%	56 - 124	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
4-Bromofluorobenzene (S)	104		%	51 - 128	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Dibromofluoromethane (S)	111		%	62 - 123	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
WET CHEMISTRY										
Moisture	22.1		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	77.9		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	8.2		mg/kg	1.7	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Barium, Total	19.7		mg/kg	2.9	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.57	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Chromium, Total	21.3		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Iron, Total	14200		mg/kg	10.9	SW846 6010C	10/7/14	AAM	10/8/14 06:59	TSS	A2
Lead, Total	3.4		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Mercury, Total	ND		mg/kg	0.063	SW846 7471B	10/14/14	MNP	10/14/14 14:32	MNP	A5
Selenium, Total	ND		mg/kg	2.9	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Silver, Total	ND		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:02	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	12.9	SW846 8015D	10/13/14	LEH	10/13/14 17:24	EGO	A
Gasoline Range Organics	ND		ug/kg	10700	SW846 8015D	10/2/14	DD	10/10/14 04:46	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	115		%	72 - 134	SW846 8015D	10/2/14	DD	10/10/14 04:46	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	62.4		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 17:24	EGO	A
VOLATILE ORGANICS										
Acetone	15.1		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Benzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromochloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromodichloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromoform	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromomethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
2-Butanone	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Carbon Disulfide	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chlorodibromomethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloroethane	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloroform	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,4-Dioxane	ND		ug/kg	76.8	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Ethylbenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Freon 113	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
2-Hexanone	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Isopropylbenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl acetate	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methylene Chloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Styrene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Tetrachloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Toluene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Trichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Vinyl Chloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
o-Xylene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
mp-Xylene	ND		ug/kg	4.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.5		%	56 - 124	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
4-Bromofluorobenzene (S)	105		%	51 - 128	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Dibromofluoromethane (S)	112		%	62 - 123	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
WET CHEMISTRY										
Moisture	19.8		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	80.2		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	5.7		mg/kg	1.9	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Barium, Total	13.4		mg/kg	3.1	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.62	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Chromium, Total	8.7		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Iron, Total	9060		mg/kg	10.6	SW846 6010C	10/7/14	AAM	10/8/14 07:03	TSS	A2
Lead, Total	3.1		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Mercury, Total	ND		mg/kg	0.062	SW846 7471B	10/14/14	MNP	10/14/14 14:33	MNP	A5
Selenium, Total	ND		mg/kg	3.1	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Silver, Total	ND		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:05	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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Middletown, PA 17057
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier: ______
Tracking #: ______

* 2 0 3 2 8 3 3 *

Co. Name: HCEA (Hillis-Carnes)
Contact (Report to): Robert Pushman
Address:
Phone: 410 880-4788

Bill to (if different than Report to):
PO#: 102238

Project Name/#: 1444IB - 901 H. Street
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] Y rpushman@hcea.com
Fax? -Y No.:

***Container Type: CG
***Container Size:
*** Preservative:

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron	1 GIL / 2 40 MeOH / 2 40 DI (Gelt Sk)			
1 B-1		10/6	1000	G	SO	1	1	1	1	1	1				
2 B-5		10/3	9:08	|	|	|	|	|	|	|	|				
3 B-6		10/2	9:08	|	|	|	|	|	|	|	|				
4															
5															
6															
7	10/6/14 1907														
8															

Enter Number of Containers Per Analysis

10/7/14 0823

SAMPLED BY (Please Print): Robert Pushman

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	10/6	1:30	2 Phyllis M. Adams	10/6/14	13:33
3 Phyllis M. Adams	10/6/14		4 [signature] ALS	10/6/14	1500
5 [signature] ALS	10/6/14	1856	6 [signature]	10/6/14	1856
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
EDDs Required? [ ] If yes, format type:
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]
Enter PWSID No.
DOD Criteria Required?

(completed by Sample Receiving)
Performed by: INITIAL HERE
Cooler Temp:
Therm. ID: 1754
No. of Coolers:
Notes:

Circle appropriate Y or N.

	Y	N
Correct containers?	Y ✓	N
Correct sample volume?	Y ✓	N
Correct preservation?	Y	N
Headspace/Volatiles?	Y ✓	N
Custody seals Present?	Y	N ✓
(If present) Seals intact?	Y	N
Received on ice?	Y ✓	N
COC/Labels complete/accurate?	Y ✓	N
Container in good condition?	Y ✓	N

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[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 13, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2032176**
Purchase Order:		Workorder ID:	**14441B-901H Street**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, October 1, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2032176 14441B-901H Street

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2032176001	B-8	Solid	9/26/2014 09:00	10/1/2014 18:40	Collected by Client
2032176002	B-9	Solid	9/29/2014 10:00	10/1/2014 18:40	Collected by Client
2032176003	B-7	Solid	10/1/2014 10:00	10/1/2014 18:40	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	20.0		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Benzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromoform	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromomethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
2-Butanone	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloroethane	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloroform	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,4-Dioxane	ND		ug/kg	72.3	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Freon 113	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
2-Hexanone	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methyl acetate	ND	12	ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methylene Chloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Styrene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Toluene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2,3-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2,4-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
o-Xylene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
mp-Xylene	ND		ug/kg	3.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.5		%	56 - 124	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Dibromofluoromethane (S)	110		%	62 - 123	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Toluene-d8 (S)	110		%	59 - 131	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.5	SW846 8015D	10/2/14	EAG	10/4/14 03:42	EGO	A
Gasoline Range Organics	ND		ug/kg	7080	SW846 8015D	9/26/14	DD	10/9/14 14:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	111		%	72 - 134	SW846 8015D	9/26/14	DD	10/9/14 14:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	87		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 03:42	EGO	A
WET CHEMISTRY										
Moisture	21.6		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	78.4		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	3.4		mg/kg	1.9	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Barium, Total	21.3		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.64	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Chromium, Total	10.1		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Iron, Total	9230		mg/kg	12.8	SW846 6010C	10/2/14	AAM	10/3/14 05:57	TSS	A2
Lead, Total	4.5		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Mercury, Total	ND		mg/kg	0.056	SW846 7471B	10/9/14	MNP	10/9/14 12:48	MNP	A5
Selenium, Total	ND		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:32	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	33.5		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Benzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromochloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromodichloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromoform	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromomethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
2-Butanone	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Carbon Disulfide	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Carbon Tetrachloride	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chlorodibromomethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloroethane	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloroform	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Cyclohexane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dibromoethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,3-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,4-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Dichlorodifluoromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1-Dichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
cis-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
trans-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichloropropane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
cis-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
trans-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,4-Dioxane	ND		ug/kg	88.1	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Ethylbenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Freon 113	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
2-Hexanone	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Isopropylbenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methyl acetate	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methyl cyclohexane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methylene Chloride	3.3		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Styrene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Tetrachloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Toluene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2,3-Trichlorobenzene	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2,4-Trichlorobenzene	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,1-Trichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,2-Trichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Trichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Trichlorofluoromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Vinyl Chloride	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
o-Xylene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
mp-Xylene	ND		ug/kg	4.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.2		%	56 - 124	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
4-Bromofluorobenzene (S)	108		%	51 - 128	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Dibromofluoromethane (S)	112		%	62 - 123	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Toluene-d8 (S)	111		%	59 - 131	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.8	SW846 8015D	10/2/14	EAG	10/4/14 04:19	EGO	A
Gasoline Range Organics	ND		ug/kg	12000	SW846 8015D	9/29/14	DD	10/10/14 02:19	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	109		%	72 - 134	SW846 8015D	9/29/14	DD	10/10/14 02:19	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	91.3		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 04:19	EGO	A
WET CHEMISTRY										
Moisture	23.0		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	77.0		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	5.3		mg/kg	1.9	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Barium, Total	25.6		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.65	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Chromium, Total	18.7		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Iron, Total	11600		mg/kg	12.5	SW846 6010C	10/2/14	AAM	10/3/14 06:09	TSS	A2
Lead, Total	3.0		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Mercury, Total	ND		mg/kg	0.061	SW846 7471B	10/9/14	MNP	10/9/14 12:52	MNP	A5
Selenium, Total	ND		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:33	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	18.2		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Benzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromochloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromodichloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromoform	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromomethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
2-Butanone	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Carbon Disulfide	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Carbon Tetrachloride	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chlorodibromomethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloroethane	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloroform	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Cyclohexane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dibromoethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,3-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,4-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Dichlorodifluoromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1-Dichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
cis-1,2-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
trans-1,2-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichloropropane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
cis-1,3-Dichloropropene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
trans-1,3-Dichloropropene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,4-Dioxane	ND		ug/kg	65.1	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Ethylbenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Freon 113	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
2-Hexanone	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Isopropylbenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methyl acetate	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methyl cyclohexane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methylene Chloride	ND	3	ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Styrene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Tetrachloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Toluene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2,3-Trichlorobenzene	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2,4-Trichlorobenzene	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,1-Trichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,2-Trichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Trichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Trichlorofluoromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Vinyl Chloride	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
o-Xylene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
mp-Xylene	ND		ug/kg	3.5	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	56 - 124	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Dibromofluoromethane (S)	114		%	62 - 123	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.1	SW846 8015D	10/2/14	EAG	10/4/14 04:56	EGO	A
Gasoline Range Organics	ND		ug/kg	6230	SW846 8015D	10/1/14	DD	10/10/14 08:00	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	72 - 134	SW846 8015D	10/1/14	DD	10/10/14 08:00	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	83.2		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 04:56	EGO	A
WET CHEMISTRY										
Moisture	13.8		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	86.2		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	3.8		mg/kg	1.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Barium, Total	18.0		mg/kg	2.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.52	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Chromium, Total	9.7		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Iron, Total	7200		mg/kg	10.0	SW846 6010C	10/2/14	AAM	10/3/14 06:13	TSS	A2
Lead, Total	4.2		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Mercury, Total	ND		mg/kg	0.057	SW846 7471B	10/13/14	MNP	10/13/14 12:17	MNP	A5
Selenium, Total	ND		mg/kg	2.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Chromium, Total	0.045		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Lead, Total	0.021		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:35	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2032176001	1	B-8	SW846 8260B	Methyl acetate
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The % Recovery was reported as 209 and the control limits were 70 to 130.				
2032176001	2	B-8	SW846 8260B	Methyl acetate
The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The % Recovery was reported as 265 and the control limits were 70 to 130.				
2032176003	3	B-7	SW846 8260B	Methylene Chloride
The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.				

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

VAT

Page 1 of 1

Courier:

Tracking #:

20321176

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: HCEA (Hillis-Carnes)

Contact (Report to): Robert Pushman

Phone: 410-880-4788

Address: 10975 Guilford Road, Suite A
Annapolis Junction

Bill to (if different than Report to): Same

PO#:

Project Name/#: 14441B - 901H Street

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [✓] -Y rpushman@hcea.com

Fax? [ ] -Y No.:

	***Container Type		CG							
	***Container Size									
	*** Preservative									
	ANALYSES/METHOD REQUESTED		TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron		

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis									
1	B-8		9/26	9:00	G	SO	✓	✓	✓	✓	✓	✓				
2	B-9		9/29	10:00	G	SO	✓	✓	✓	✓	✓	✓				
3	B-7		10/1	10:00	G	SO	✓	✓	✓	✓	✓	✓				
4									Rec.	1 32 oz Jar						
5										2 DI water Vials 2 MEOH Vials						
6												SFS				
7												10/01/14				
8													10/02/14	03 14		

	Custody seals Present?	Correct containers?	Correct sample volume?	Correct preservation?	Received on ice?	Headspace/Volatiles?	COC/Labels complete/accurate?	Container in good condition?	Circle appropriate Y or N.
	N	N	N	N	N	N	N	N	
	Y	Y	Y	Y	Y 3	Y	Y 3	Y	

(completed by Sample Receiver)

Performed by: [illegible]

Cooler Temp: 1

Therm. ID: 296

No. of Coolers:

Notes:

SAMPLED BY (Please Print): Robert Pushman

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	10/1	2:45	2 [signature] ALS	10/1/14	1425
3 [signature] ABS	10/1/14	1840	4 [signature] ALS	10-1-14	1840
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)

EDDs Required? [ ] If yes, format type:

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

Other

DOD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

Rev 01-2013

ALS

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October 27, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Revised Report - 10/27/2014 12:04:27 PM - See workorder comment section for explanation

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2033947**
Purchase Order:	**102238**	Workorder ID:	**2014-901 H Street - SCENARIO B**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Friday, October 10, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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SAMPLE SUMMARY

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2033947001	B-2	Solid	10/8/2014 10:00	10/10/2014 19:12	Mr. Robert Pushman
2033947002	B-3	Solid	10/9/2014 08:30	10/10/2014 19:12	Mr. Robert Pushman
2033947003	B-4	Solid	10/10/2014 09:00	10/10/2014 19:12	Mr. Robert Pushman
2033947004	MW-1	Water	10/9/2014 12:00	10/10/2014 19:12	Mr. Robert Pushman
2033947005	MW-2	Water	10/9/2014 13:00	10/10/2014 19:12	Mr. Robert Pushman
2033947006	Trip Blank	Water	10/10/2014 19:12	10/10/2014 19:12	Mr. Robert Pushman

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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PROJECT SUMMARY

Workorder: 2033947 2014-901 H Street - SCENARIO B

Workorder Comments

Samples 004 and 005 changed from total to dissolved metals per client instruction. VLF 10/14/14

This report was revised to update the testing requested on samples 004 and 005 per client request via email. DJM 10/23/14

Sample Comments

Lab ID: 2033947004 **Sample ID:** MW-1 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

Lab ID: 2033947005 **Sample ID:** MW-2 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	10.8	SW846 8015D	10/13/14	LEH	10/13/14 18:36	EGO	A
Gasoline Range Organics	ND		ug/kg	7460	SW846 8015D	10/8/14	DD	10/14/14 18:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	72 - 134	SW846 8015D	10/8/14	DD	10/14/14 18:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	64.4		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 18:36	EGO	A
VOLATILE ORGANICS										
Acetone	18.1		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Benzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromoform	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromomethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
2-Butanone	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloroethane	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloroform	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,4-Dioxane	ND		ug/kg	71.3	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Freon 113	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
2-Hexanone	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl acetate	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methylene Chloride	3.4		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Styrene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Toluene	4.2		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
o-Xylene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
mp-Xylene	ND		ug/kg	3.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	56 - 124	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Dibromofluoromethane (S)	115		%	62 - 123	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
WET CHEMISTRY										
Moisture	7.4		%	0.1	S2540G-97			10/13/14 10:04	CF	B
Total Solids	92.6		%	0.1	S2540G-97			10/13/14 10:04	CF	B
METALS										
Arsenic, Total	2.4		mg/kg	1.6	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Barium, Total	11.2		mg/kg	2.7	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.54	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Chromium, Total	9.4		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Iron, Total	4900		mg/kg	9.8	SW846 6010C	10/14/14	AAM	10/22/14 03:07	TSS	A3
Lead, Total	4.6		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Mercury, Total	ND		mg/kg	0.047	SW846 7471B	10/21/14	MNP	10/21/14 14:43	MNP	A5
Selenium, Total	ND		mg/kg	2.7	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Silver, Total	ND		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Lead, Total	0.018		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:11	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	11.1	SW846 8015D	10/13/14	LEH	10/13/14 19:46	EGO	A
Gasoline Range Organics	ND		ug/kg	6920	SW846 8015D	10/9/14	DD	10/14/14 18:44	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	110		%	72 - 134	SW846 8015D	10/9/14	DD	10/14/14 18:44	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	76.6		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 19:46	EGO	A
VOLATILE ORGANICS										
Acetone	11.9		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Benzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromochloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromodichloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromoform	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromomethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
2-Butanone	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Carbon Disulfide	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chlorodibromomethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloroethane	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloroform	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,4-Dioxane	ND		ug/kg	73.4	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Ethylbenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Freon 113	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
2-Hexanone	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Isopropylbenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl acetate	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methylene Chloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Styrene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Tetrachloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Toluene	3.4		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Trichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Vinyl Chloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
o-Xylene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
mp-Xylene	ND		ug/kg	3.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.5		%	56 - 124	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Dibromofluoromethane (S)	114		%	62 - 123	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Toluene-d8 (S)	110		%	59 - 131	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
WET CHEMISTRY										
Moisture	8.2		%	0.1	S2540G-97			10/13/14 10:04	CF	A
Total Solids	91.8		%	0.1	S2540G-97			10/13/14 10:04	CF	A
METALS										
Arsenic, Total	4.8		mg/kg	1.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Barium, Total	18.2		mg/kg	2.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.52	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Chromium, Total	18.5		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Iron, Total	12700		mg/kg	9.2	SW846 6010C	10/14/14	AAM	10/22/14 03:10	TSS	A3
Lead, Total	4.5		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Mercury, Total	ND		mg/kg	0.054	SW846 7471B	10/21/14	MNP	10/21/14 14:46	MNP	A5
Selenium, Total	ND		mg/kg	2.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Lead, Total	0.15		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:12	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	11.9		mg/kg	11.1	SW846 8015D	10/13/14	LEH	10/13/14 20:22	EGO	A
Gasoline Range Organics	ND		ug/kg	6990	SW846 8015D	10/10/14	DD	10/14/14 19:21	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	125		%	72 - 134	SW846 8015D	10/10/14	DD	10/14/14 19:21	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	63.1		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 20:22	EGO	A
VOLATILE ORGANICS										
Acetone	11.0		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Benzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromoform	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromomethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
2-Butanone	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloroethane	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloroform	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,4-Dioxane	ND		ug/kg	70.1	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Freon 113	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
2-Hexanone	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl acetate	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methylene Chloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Styrene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Toluene	3.1		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
o-Xylene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
mp-Xylene	ND		ug/kg	3.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.2		%	56 - 124	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Dibromofluoromethane (S)	115		%	62 - 123	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
WET CHEMISTRY										
Moisture	10.3		%	0.1	S2540G-97			10/13/14 10:04	CF	B
Total Solids	89.7		%	0.1	S2540G-97			10/13/14 10:04	CF	B
METALS										
Arsenic, Total	4.8		mg/kg	1.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Barium, Total	17.9		mg/kg	2.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.50	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Chromium, Total	10.4		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Iron, Total	5130		mg/kg	9.8	SW846 6010C	10/14/14	AAM	10/22/14 03:14	TSS	A3
Lead, Total	3.4		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Mercury, Total	ND		mg/kg	0.047	SW846 7471B	10/21/14	MNP	10/21/14 14:47	MNP	A5
Selenium, Total	ND		mg/kg	2.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Lead, Total	0.11		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:13	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4

Mrs. Vicki A. Forney
Project Coordinator

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947004** Date Collected: 10/9/2014 12:00 Matrix: Water

Sample ID: **MW-1** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:34	TMP	D
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:34	TMP	D
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
cis-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 16:34	TMP	D
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 16:34	TMP	D
Isopropylbenzene	1.3		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 16:34	TMP	D
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947004** Date Collected: 10/9/2014 12:00 Matrix: Water

Sample ID: **MW-1** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 16:34	TMP	D
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Tetrachloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117		%	62 - 133	SW846 8260B			10/13/14 16:34	TMP	D
4-Bromofluorobenzene (S)	89.5		%	79 - 114	SW846 8260B			10/13/14 16:34	TMP	D
Dibromofluoromethane (S)	94.5		%	78 - 116	SW846 8260B			10/13/14 16:34	TMP	D
Toluene-d8 (S)	92		%	76 - 127	SW846 8260B			10/13/14 16:34	TMP	D
PETROLEUM HC's										
Diesel Range Organics C10-C28	0.85		mg/L	0.16	SW846 8015D	10/14/14	RMP	10/15/14 10:01	EGO	A
Gasoline Range Organics	ND		ug/L	100	SW846 8015D			10/17/14 14:35	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	109		%	90 - 129	SW846 8015D			10/17/14 14:35	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	72.3		%	26 - 139	SW846 8015D	10/14/14	RMP	10/15/14 10:01	EGO	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947005** Date Collected: 10/9/2014 13:00 Matrix: Water

Sample ID: **MW-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:51	TMP	D
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:51	TMP	D
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
cis-1,2-Dichloroethene	3.7		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 16:51	TMP	D
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 16:51	TMP	D
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 16:51	TMP	D
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947005** Date Collected: 10/9/2014 13:00 Matrix: Water

Sample ID: **MW-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 16:51	TMP	D
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Tetrachloroethene	28.4		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115		%	62 - 133	SW846 8260B			10/13/14 16:51	TMP	D
4-Bromofluorobenzene (S)	89.6		%	79 - 114	SW846 8260B			10/13/14 16:51	TMP	D
Dibromofluoromethane (S)	90.1		%	78 - 116	SW846 8260B			10/13/14 16:51	TMP	D
Toluene-d8 (S)	86.5		%	76 - 127	SW846 8260B			10/13/14 16:51	TMP	D
PETROLEUM HC's										
Diesel Range Organics C10-C28	0.22		mg/L	0.16	SW846 8015D	10/14/14	RMP	10/15/14 10:37	EGO	A
Gasoline Range Organics	ND		ug/L	100	SW846 8015D			10/17/14 13:58	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	90 - 129	SW846 8015D			10/17/14 13:58	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	73.5		%	26 - 139	SW846 8015D	10/14/14	RMP	10/15/14 10:37	EGO	A

Vicki Forney

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Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947006** Date Collected: 10/10/2014 Matrix: Water

Sample ID: **Trip Blank** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 14:52	TMP	A
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 14:52	TMP	A
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 14:52	TMP	A
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 14:52	TMP	A
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 14:52	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947006** Date Collected: 10/10/2014 Matrix: Water

Sample ID: **Trip Blank** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 14:52	TMP	A
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Tetrachloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133	SW846 8260B			10/13/14 14:52	TMP	A
4-Bromofluorobenzene (S)	93.6		%	79 - 114	SW846 8260B			10/13/14 14:52	TMP	A
Dibromofluoromethane (S)	92.4		%	78 - 116	SW846 8260B			10/13/14 14:52	TMP	A
Toluene-d8 (S)	89.8		%	76 - 127	SW846 8260B			10/13/14 14:52	TMP	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1
Courier:
Tracking #:

* 2 0 3 3 9 4 7 *

Co. Name: HCEA (Hillis-Carnes)
Contact (Report to): Robert Pushman
Phone: 410-880-4788
Address:

Bill to (if different than Report to):
PO#: 102238

Project Name/#: 14441B- 901 H Street NE
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] Y kpushman@hcea.com
Fax? Y No:

***Container Type: Varies
***Container Size: ALS Provided
***Preservative: ✓

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron				
						Enter Number of Containers Per Analysis									
1 B-2		10/8	10:00			✓	✓	✓	✓	✓	✓	each set: 1 32oz G jar, 2 MeOH 40mL, 2 DI 40mL			
2 B-3	Sample Jars Mayfield 10/8	10/9	8:30			↓	↓	↓	↓	↓	↓				
3 B-4		10/10	9:00			↓	↓	↓	↓	↓	↓				
4 MW-1	"	10/9	1200			↓	↓	↓	↓	↓	↓	each set: 4 40mL G HCl, 1 P 250mL HNO3, 2 A 1L H2SO4, 1 A 1L unp.			
5 MW-2	"	10/9	13:00			↓	↓	↓	↓	↓					
6 Trip blanks	GHC 10-10-14							4							
7												GHC 10-10-14			
8	← 10/10/14 0310														

(completed by Sample Receiving)
Performed by: GHC
Cooler Temp: 2
Therm. ID: TK-296
No. of Coolers:
Notes:

Circle appropriate Y or N.

	Y	N
Correct containers?	(Y)	N
Correct sample volume?	(Y)	N
Correct preservation?	(Y)	N
Headspace/Volatiles?	Y	(N)
Custody seals Present?	Y	(N)
(If present) Seals Intact?	Y	N
Received on ice?	(Y)	N
COC/Labels complete/accurate?	(Y)	N
Container in good condition?	(Y)	N

SAMPLED BY (Please Print): Robert Pushman

Project Comments: ~~Lab to filter~~ filter Water Samples prior to processing. per email 4th changed from total to dissolved metals GHC 10/14/14

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	10/10	3:00	2 [signature] ALS	10/10	1500
3 [signature] ALS	10/10	1312	4 [signature]	10-10	1912
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
DOD Criteria Required?

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY ***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

HILLIS-CARNES
ENGINEERING ASSOCIATES

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December 30, 2014

Ms. Emily Struck
Parcel Seven Associated, LLC
c/o Rappaport Management Company
8405 Greensboro Drive, 8th Floor
McLean, Virginia 22102-5121

RE: Environmental Subsurface Investigation
901 H Street, NE Project
Washington, D.C. 20002
Hillis-Carnes Project No. 14441B

Dear Ms. Struck:

On behalf of Parcel Seven Associated, LLC (Client), Hillis-Carnes Engineering Associates, Inc. (Hillis-Carnes) has conducted an Environmental Subsurface Investigation at the above-referenced property, hereafter referred to as the Site. Hillis-Carnes' methodologies, findings, and resulting conclusions regarding this investigation are included in the attached report.

We appreciate the opportunity to be of service to you for this project. If you have any questions regarding information in this report or if we can be of further assistance, please contact the undersigned at (410) 880-4788.

Very truly yours,
HILLIS-CARNES ENGINEERING ASSOCIATES, INC.

Robert W. Pushman
Environmental Scientist

Gina L. Galimberti, REM
Environmental Services Manager

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APPENDIX

1.0 GENERAL INFORMATION

1.1 Site Location

The subject property is located south of H Street, NE between 8th and 10th Streets, NE in Washington, D.C. The property is identified by the District of Columbia as Lot 55 in Square 912. The property is improved with a one-story shopping center with approximately 37,000 square feet of leasable space. In addition, a stand-alone building, formerly occupied by a Bank of America, is located in the northeast area of the property. The structures were reportedly constructed in 1985. Addresses associated with the main shopping center include 801-957 H Street, NE and the address associated with the former bank is 961 H Street, NE. The main shopping center tenants generally consist of retail stores, commercial businesses and restaurants. In addition, one space is occupied by a drycleaner and one space is vacant (reportedly formerly occupied by Rent-A-Center). The Site and the site vicinity are both serviced by municipal water.

1.2 Background Information

ECS Mid-Atlantic, LLC conducted a Phase I Environmental Site Assessment (ESA) of the Site in April 2014. ECS concluded that two Recognized Environmental Conditions (RECs) were associated with the Site. The RECs were related to: a) the reported use of "perc" (a dry-cleaning solvent) at the on-site Smile Cleaners tenant space from a least the early 1990s to approximately 10 years ago; and b) a former/historic off-site dry-cleaning operation located adjoining the Site to the north, across H Street, NE. In addition, ECS concluded that "due to the urban nature of the area and long term storage and use of petroleum products and dry cleaning solvents in Washington, D.C., it would not be unusual to find low levels of environmentally-significant substances in soil or groundwater beneath the surface of the Site".

In addition, a heating oil underground storage tank (UST) was reportedly associated with the Site prior to the Sites current redevelopment and use. According to information provided to Hillis-Carnes, the former heating oil UST was located at a former structure, formerly identified as 817 H Street, NE. This former structure and associated UST were located at the northern portion of the Site, southwest of the intersection of H Street, NE and 9th Street, NE. It is presumed that the UST was removed prior to development; however, no written record of the removal of the UST was obtained.

Based on these findings, the Client contacted Hillis-Carnes regarding an environmental subsurface investigation. Therefore, Hillis-Carnes prepare a proposal for environmental services at the Site. The scope of work proposed by Hillis-Carnes is described in Section 2.0.

1.3 Geologic Information

Hillis-Carnes conducted a Geotechnical Engineering Study simultaneously with this Environmental Subsurface Investigation. The following geologic information was obtained from the report generated for that study.

The Geologic Map of Montgomery County and the District of Columbia (1953) indicates that the site is mapped in an area where the shallow subsurface materials appear to belong to the Wicomico formation of Pleistocene age. The soils in this formation are stream deposits typically consisting of gravel, sand, and silt and are typically underlain by deposits of the Potomac Group.

It is typical in the Washington, DC area to find man-placed fill materials associated with previous construction activities situated atop the above-mentioned natural soils.

1.4 Proposed Development Plan

The 87,053 square foot project site is located at 901 H Street, NE in Washington, DC as shown on the Site Location Map (Figure 1) in the Appendix. We understand that the proposed construction at the site is to include a structure that will contain a level of at-grade retail with seven stories of residential above and three levels of parking below. It is anticipated that the lowest level of the structure will extend approximately 30± feet below existing site grades.

2.0 SCOPE OF WORK

The Scope of Work for the Environmental Subsurface Investigation is as follows.

Project Preparation

- A Hillis-Carnes Environmental Project Manager was assigned to this project to manage and coordinate this project.

- Hillis-Carnes obtained a Soil Boring Permit from the District Department of Consumer and Regulatory Affairs.

- Hillis-Carnes notified Miss Utility to locate public utilities on the Site. In addition, Hillis-Carnes contracted a private utility locator on behalf of the Client to mark the locations of private utilities on the Site.

Environmental Subsurface Investigation

- The geotechnical borings were drilled (identified as B-1 through B-9 and MW-1) utilizing a hollow-stem auger drill rig. Per the request of the Client, an additional boring was drilled and converted to an additional groundwater monitoring well (MW-2), as described later in this section. Samples of the subsurface materials were obtained using a split-spoon sampler with 2.5 foot and 5 foot intervals. The split-spoon samplers were cleaned prior to the initiation of the project and between each bore hole in order to prevent cross-contamination. The sampling spoons were cleaned using brushes, a biodegradable soap solution and a distilled water rinse. In addition, as described later in this section, certain soil samples obtained during the field activities were collected for laboratory analyses.

- The split-spoon samples obtained and the soil cuttings produced from the augers during the drilling were inspected in the field (e.g., for odors, staining) and were screened in the field for volatile organic compounds (VOCs) with the utilization of a photoionization detector (PID), which produces field readings in relative units of parts per million (ppm), as calibrated against 100 ppm of calibration (i.e., isobutylene) gas. Soil samples in Borings B-1 through B-9 were selected for laboratory analyses. The selection of the soil samples for laboratory analyses was at the discretion of the on-site Environmental Project Manager and on the findings of the field activities (e.g., at the soil groundwater interface).

- Groundwater/saturated soils were encountered in each of the drilled locations for this project; however, per the contract for this investigation, groundwater monitoring wells were installed at locations MW-1 and MW-2, only. The wells were completed using 2-inch diameter schedule 40 PVC riser and slotted screen sections. Hillis-Carnes installed slotted screen sections five feet below and five feet above the groundwater level. Solid riser was used from the top of the screening to the ground surface. The annular space between the wall of the bore holes and the riser/screen was filled with sand, specifically from the bottom of the bore holes up to a depth approximately 2 feet above the slotted screen section; the remainder of the annular space was filled with a bentonite slurry to the ground surface. The wells were completed using a locking cap and a flush-mounted bolted metal cover.

- Per the contract for this investigation, eleven (11) samples (nine soil and two water) were collected for laboratory analyses. The soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) - Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO), Volatile Organic Compounds (VOCs), Resource Conservation and Recovery Act (RCRA) 8 Metals, Toxicity Characteristic Leaching Procedure (TCLP) Metals, and Iron. The groundwater samples were analyzed for TPH-DRO, TPH-GRO, and VOCs.

- Before the cessation of drilling operations, the slotted PVC pipes constituting the groundwater monitoring wells were manually removed and the borings were grouted with a bentonite mixture.

Quality Assurance/Quality Control (QA/QC)

During the boring activities, all downhole equipment was cleaned prior to use and between boring locations to prevent cross-contamination. All soil samples were handled using a new, clean pair of dedicated gloves that were changed for every sampling interval.

The samples were collected for laboratory analyses in clean, laboratory-provided glassware. The sample containers were labeled, placed on ice, and delivered promptly to a laboratory. All appropriate chain-of-custody procedures were utilized to track the samples from the point of collection to receipt by the laboratory. The samples were analyzed in accordance with applicable methodology and within the EPA's maximum holding times.

Investigation-Derived Wastes

Investigation-Derived Wastes (IDW) generated during this project included wastewater generated during decontamination procedures (i.e., of the drilling equipment and the oil/water interface probe) and purge water; and soil cuttings from the Geotechnical drilling activity. The wastewater and purge water were placed in 55-gallon drums and the soil cuttings were placed in separate 55-gallon drums. A total of 15 drums of IDW were generated during operations. The drums were staged within the vacant space (i.e. the former Rent-A-Center).

3.0 SOIL AND GROUNDWATER SAMPLING PROGRAM

The advancement of borings was performed at the Site from September 29 to October 10, 2014. The field findings for this assessment are provided in the following subsections.

3.1 Soil Sampling Procedures and Field Findings

Nine geotechnical soil borings (identified as B-1 through B-9) and two additional borings for the primary purpose of installing two groundwater monitoring wells (MW-1 and MW-2) were advanced on the Site. B-1 through B-4 were drilled along the northern portion of the Site. B-5 through B-9 were drilled in the southern portion of the Site. MW-1 was drilled south of the Smile Cleaners tenant space and MW-2 was drilled in the northwest portion of the Site, in the general reported vicinity of a former heating oil tank and southwest of a former off-site dry-cleaner identified in the Phase I ESA, prepared by ECS. The sample locations are illustrated on the Sample Location Map (Figure 2) included in this report.

The following table describes the conditions observed during the drilling of the borings.

Table 1 - Conditions Encountered During Drilling of Soil Borings
901 H Street, NE Project – Washington, D.C.

Boring	Depth Interval (feet below ground surface)	Soils	PID Reading	Staining	Odors	Notes	Sample Collected for Laboratory Analyses
B-1	0-8.5	Sand and Gravel	0	None	None	Groundwater monitoring well set at 27.0 feet in a 5' offset bore hole (MW-2). Groundwater encountered at 22.0 feet	Soil sample collected for lab analysis at 20-22 feet Water sample collected in offset well for lab analysis
	8.5-20	Sand	0	None	None		
	20-30	Silty Sand and Gravel	0	None	None		
	30-40	Silty Sand	0	None	None		
	40-60	Intermittent Layers of Sand and Clay	0	None	None		
	60-70	Sand	0	None	None		
	70-73.8	Silty Clay	0	None	None		

Boring	Depth Interval (feet below ground surface)	Soils	Highest PID Reading	Staining	Odors	Notes	Sample Collected for Laboratory Analyses
B-2	0-5	Clayey Sand	0	None	None	Groundwater encountered at 22.5 feet	Soil sample collected for lab analysis at 18-22.5 feet
	5-8.5	Silty Sand	0	None	None		
	8.5-12	Silty Clay	0	None	None		
	12-17	Sand, with Clay Lenses	0	None	None		
	17-34	Silty Sand and Gravel	0	None	None		
	34-57	Intermitttent Layers of Sand and Clay	0	None	None		
	57-67	Silty Sand and Gravel	0	None	None		
	67-75	Clay	0	None	None		
B-3	0-7	Silty Sand and Gravel	0	None	None	Groundwater encountered at 22 feet	Soil sample collected for lab analysis at 18-22 feet
	7-17	Sand	0	None	None		
	17-32	Silty Sand, with Gravel	0	None	None		
	32-62	Intermittent Layers of Sand and Clay	0	None	None		
	62-72	Silty Sand and Gravel	0	None	None		
	72-75	Clay	0	None	None		
B-4	0-7.5	Silty Sand and Gravel	0	None	None	Groundwater encountered at 22.5 feet	Soil sample collected for lab analysis at 18-22 feet
	7.5-17	Silty Sand, with clay	0	None	None		
	17-32	Silty sand and Gravel	0	None	None		
	32-42	Silty Sand	0	None	None		
	42-62	Intermittent Layers of Sand and Clay	0	None	None		
	62-67	Sand	0	None	None		
	67-69	Silty Sand and Gravel	0	None	None		
B-5	0-7.5	Sand and Gravel	0	None	None	Groundwater encountered at 22.5 feet	Soil sample collected for lab analysis at 19-22 feet
	7.5-15	Sand	0	None	None		
	15-25	Sand and Gravel	0	None	None		
	25-70.5	Sand	0	None	None		

Boring	Depth Interval (feet below ground surface)	Soils	Highest PID Reading	Staining	Odors	Notes	Sample Collected for Laboratory Analyses
B-6	0-7	Sand and Gravel	0	None	None	Groundwater encountered at 22.5 feet	Soil sample collected for lab analysis at 19-22 feet
	7-10	Sand	0	None	None		
	10-35	Silty Sand, with Gravel	0	None	None		
	35-45	Clay	0	None	None		
	45-70	Sand, with Clay Lenses	0	None	None		
	70-75	Silty Clay	0	None	None		
B-7	0-10	Sand and Gravel	0	None	None	Groundwater encountered at 23 feet	Soil sample collected for lab analysis at 20-23 feet
	10-20	Silty Sand	0	None	None		
	20-25	Silty Sand, with Gravel	0	None	None		
	25-40	Sand, with Gravel	0	None	None		
	40-75	Sand, with Clay Lenses	0	None	None		
B-8	0-10	Sand and Gravel	0	None	None	Groundwater encountered at 23 feet	Soil sample collected for lab analysis at 20-23 feet
	10-30	Silty Sand	0	None	None		
	30-50	Silty Sand, with Clay Lenses	0	None	None		
	50-65	Silty Sand	0	None	None		
	65-75	Cobbles	0	None	None		
B-9	0-5	Clayey Sand	0	None	None	Groundwater encountered at 24 feet	Soil sample collected for lab analysis at 22-25 feet
	5-10	Clay	0	None	None		
	10-20	Sand	0	None	None		
	20-30	Sand, with Gravel	0	None	None		
	30-73	Sand, with Clay Lenses	0	None	None		
MW-1	0-15	Sand and Gravel	0	None	None	Groundwater monitoring well set at 27.0 feet	Water sample collected in well for lab analysis
	15-28	Sand	0	None	None		

At boring locations B-1 through B-9 (as well as MW-1) the soils in the split-spoon sampler were visually inspected in the field (e.g., for odors, staining) and were screened in the field for volatile organic compounds (VOCs) with the utilization of a photoionization detector (PID).

Soil samples from B-1 through B-9 were collected for laboratory analyses. Soil samples were generally collected just above the soil/groundwater interface. The samples collected were placed in clean, laboratory-provided containers, labeled, placed in a cooler, packaged for transport, and delivered to the laboratory.

The nine soil samples were analyzed for the following: Total Petroleum Hydrocarbons (TPH) - Diesel Range Organics (TPH-DRO); Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH-GRO); Volatile Organic Compounds (VOCs); Resource Conservation and Recovery Act (RCRA) 8 Metals; Toxicity Characteristic Leaching Procedure (TCLP) Metals; and Iron. All appropriate chain-of-custody procedures were utilized to track the samples from collection to final

disposition at the laboratory. The samples were analyzed using EPA methodology and within EPA's holding times.

The analytical parameters and laboratory results for the soil samples are described in Section 3.3.1.

3.2 Groundwater Sampling Procedures and Field Findings

Groundwater was encountered in each of the soil borings and the auger probe. However, as described in the contract for this project, groundwater monitoring wells were installed at MW-1 and MW-2, only. MW-1 was installed to address the on-site dry-cleaner (Smile Cleaners) identified in the Phase I ESA report. MW-2 was installed to address the former off-site dry-cleaner and a former heating oil tank discussed in the Phase I ESA report. In addition, MW-2 was installed to obtain groundwater data from an area of the Site that was somewhat separated by distance from MW-1.

The MW-1 groundwater monitoring well was set at a depth of approximately 28.0 feet below the ground surface (bgs). The MW-2 groundwater monitoring well was set at a depth of approximately 27.0 feet bgs.

Following installation, the well was developed with a bailing technique in order to remove fine soil particles and enhance hydraulic performance. Approximately forty-eight (48) hours after development, an oil/water interface probe was utilized to measure the depth to water and to determine if there is a measurable layer of free-phase product present. Groundwater levels were recorded at 22.3 feet and 22.4 feet in MW-1 and MW-2, respectively, approximately 48 hours after well installation. No evidence of free-phase product was detected in the groundwater monitoring wells. Further, no observable petroleum hydrocarbon sheens were observed on the components of the field instrumentation.

Following the development activity, each well was purged and a water sample was collected. The purging and sampling was conducted utilizing a peristaltic pump and disposable tubing. The water sample was visually inspected for the presence of free-phase product, sheens and odors. No free-phase product, sheens or odors were observed in either of the groundwater monitoring wells; therefore a groundwater sample was collected. The groundwater samples were placed in clean, laboratory-provided containers, labeled, placed in a cooler, packaged for transport, and delivered to the laboratory.

The two groundwater samples were analyzed for the following: TPH-DRO, TPH-GRO, and VOCs. All appropriate chain-of-custody procedures were utilized to track the samples from collection to final disposition at the laboratory. The samples were analyzed using EPA methodology and within EPA's holding times.

The analytical parameters and laboratory results for the groundwater samples are described in Section 3.3.2.

3.3 Analytical Methodologies and Results

The samples selected for laboratory analyses were transported to and analyzed by ALS Environmental, located in Middletown, Pennsylvania. A copy of the completed Chain-of-Custody Forms and the Laboratory Reports is included in Appendix A.

3.3.1 Soil

Petroleum Hydrocarbons and VOCs

As reflected in Table 2, laboratory analyses of the soil samples revealed the presence of TPH-DRO, and certain constituents of VOCs, at concentrations exceeding the laboratory's practical quantitation limit in some of the samples.

Table 2
901 H Street, NE Project – Washington D.C.
Soil Sample Results
Petroleum Hydrocarbons and Volatile Organic Compounds

Results and Standards are presented in milligrams per kilogram (mg/kg)
mg/kg = parts per million (ppm)

	Petroleum Hydrocarbons		VOCs				
	TPH-DRO	TPH-GRO	Acetone	Methylene Chloride	Toluene	Benzene	Ethylbenzene
B-1	ND	ND	ND	ND	ND	ND	ND
B-2	ND	ND	0.0181	0.0034	0.0042	ND	ND
B-3	ND	ND	0.0119	ND	0.0034	ND	ND
B-4	0.0119	ND	0.011	ND	0.0031	ND	ND
B-5	ND	ND	0.0124	0.0036	ND	ND	ND
B-6	ND	ND	0.0151	ND	ND	ND	ND
B-7	ND	ND	0.0182	ND	ND	ND	ND
B-8	ND	ND	0.02	ND	ND	ND	ND
B-9	ND	ND	0.0335	0.0033	ND	ND	ND
Tier 0 Standard	100	100	61,000*	57*	10**		

Tier 0 Standard = District of Columbia Municipal Regulations (DCMR) Title 20 Section 6208.

*The DCMR Tier 0 Standard does not include a standard for the constituents Acetone or Methylene Chloride; therefore, the most conservative of the EPA Regional Screening Levels (RSLs) for Resident Soil, as presented in the EPA's RSL Resident Soil Table (May 2014) was utilized.

**DCMRs Tier 0 Standard indicates that the constituents of Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); shall not exceed 10 ppm, when added together.

ND = Not detected at a concentration exceeding the laboratory's practical quantitation limit.

As seen in Table 2, certain samples analyzed had concentrations of TPH-DRO and Toluene above the detectable limits of the laboratory. However, the concentrations detected are significantly below the threshold limits as determined by DCMRs Tier 0 Standard. Hillis-Carnes concludes that the presence of these constituents does not appear to be an environmental concern at the Site.

With regard to acetone, acetone was detected in the majority of the soil samples collected and laboratory analyzed for this project. The presence of the acetone in the samples is a suspected laboratory artifact as acetone can be a break-down product of one of the preservatives utilized in the sampling technique/glassware. More specifically, acetone can be a break-down product of the

sodium bisulfate preservative that is in the glass vials associated with the Terra Core^{R} sampling technique utilized for VOCs. Since the detection of acetone in the samples is a suspected laboratory artifact, Hillis-Carnes concludes that the presence of acetone does not appear to be an environmental concern at the Site. In addition, the concentration of acetone detected in the samples is significantly below the most conservative of the EPA's RSLs for acetone in residential soil.

With regard to methylene chloride, methylene chloride was detected in some of the soil samples collected and laboratory analyzed for this project. The laboratory reported that the presence of the methylene chloride in the samples is a suspected laboratory artifact. Based on Hillis-Carnes' experience, methylene chloride is commonly found in samples analyzed in a laboratory for VOCs since methylene chloride is used as an extraction agent for certain analytical methodologies and can become airborne through volatilization. Since the detection of methylene chloride in the samples is a suspected laboratory artifact, Hillis-Carnes concludes that the presence of methylene chloride does not appear to be an environmental concern at the Site. In addition, the concentration of methylene chloride detected in the samples is significantly below the most conservative of the EPA's RSLs for methylene chloride in residential soil.

RCRA 8 Metals

The laboratory results for the RCRA 8 Metals and Iron analyses for the soil samples are provided in Table 3. Also provided in the table are the Anticipated Typical Concentrations (ATCs) for metals, as described later in this section. In addition, Table 3 includes USGS background levels for metals, also described later in this section.

Table 3
901 H Street, NE Project – Washington D.C.
Soil Sample Results
Heavy Metals, including Iron

Results and Cleanup Standards are presented in milligrams per kilogram (mg/kg)
milligrams per kilogram = parts per million (ppm)

	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	ATC	Background
Arsenic	ND	2.4	4.8	4.8	8.2	5.7	3.8	3.4	5.3	3.6	7.2
Barium	27.2	11.2	18.2	17.9	19.7	13.4	18.0	21.3	25.6	73	580
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Chromium	8.3	9.4	18.5	10.4	21.3	8.7	9.7	10.1	18.7	28	54
Lead	2.6	4.6	4.5	3.4	3.4	3.1	4.2	4.5	3.0	45	19
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
Iron	4,680	4,900	12,700	5,130	14,200	9,060	7,200	9,230	11,600	15,000	26,000

ATC = the MDEs Anticipated Typical Concentration in Eastern Maryland Region.

Background = USGS reference levels.

ND = Not detected at a concentration exceeding the laboratory's practical quantitation limit.

NA = Not applicable, a comparative standard is not presented as levels of the constituents were not detected.

The Tier 0 Standards (for soil) presented in the District of Columbia Municipal Regulations (DCMR) Title 20 Section 6208 do not include standards for metals in soil. Therefore, Hillis-Carnes compared the concentrations of metals detected (i.e. arsenic, barium, chromium, lead and iron) with Maryland's Anticipated Typical Concentrations (ATCs, or "naturally-occurring" concentrations of metals in soils) that are presented in the MDE's Cleanup Standards for Soil and Groundwater (June 2008), hereafter referred to as the MDE Cleanup Standard Guidance Document. The ATCs were developed from ten years of investigations at properties around the state of Maryland and indicate typical levels of metals that naturally occur in soils. The MDE Cleanup Standard Guidance Document presents ATCs for three regions across Maryland (i.e., Western Maryland, Central Maryland and Eastern Maryland). When compared with the location of the three regions, the Site's location in the eastern portion of Washington D.C. appears to correlate with the Eastern Maryland Region. Therefore, based on the location of the Site (i.e. Northeast, Washington D.C.); Hillis-Carnes utilized the ATCs reported in the Eastern Maryland region for comparative purposes.

In addition to the ATCs listed above, Hillis-Carnes included the reference levels of the United States Geologic Survey (USGS) background metal concentrations in native soil for the Conterminous United States. According to the MDE Cleanup Standard Guidance Document, "comparison of the reference levels to the background metal concentrations… indicates a good correlation exists between the data sets" (i.e., the MDE's data sets to calculate the ATC's and the USGS data sets to calculate background levels).

With the exception of arsenic, concentrations of metals detected are below the ATC (as well as the USGS background levels) as provided in the MDE Cleanup Standard Guidance Document. Therefore, it is Hillis-Carnes' opinion that the concentrations of barium, chromium, lead and iron in the samples analyzed are not an environmental concern and appear to be a result of naturally-occurring metals.

With regard to arsenic, the ATC for arsenic in the Eastern Maryland region is 3.6 parts per million (ppm). The ATC for arsenic in the Eastern Region is calculated based on the results of 76 soil samples with arsenic concentrations ranging between 0.12 ppm and 6.9 ppm.

- The arsenic concentrations in B-2 and B-8 (i.e., 2.4 ppm, and 3.4 ppm, respectively) did not exceed the ATC for arsenic in Eastern Maryland (3.6 ppm).

- The arsenic concentrations in B-3, B-4, B-6, B-7, and B-9 (4.8 ppm, 4.8 ppm, 5.7 ppm, 3.8 ppm, and 5.3 ppm) did not exceed the background level (7.2 ppm) for arsenic according to the USGS. In addition, the concentrations did not exceed the maximum concentration of arsenic (i.e., 6.9 ppm) utilized by the MDE to calculate the ATC for arsenic in Eastern Maryland.

- The arsenic concentration in B.5 (8.2 ppm) only slightly exceeded the USGS background level (7.2 ppm).

In addition, based on data collected by Hillis-Carnes during arsenic remediation projects in Maryland (i.e., at golf courses, former orchards), it is Hillis-Carnes' experience that the concentrations of arsenic detected in the samples appear to be indicative of naturally occurring levels of arsenic. Based on MDE's ATC data (including USGS background levels) and Hillis-Carnes' experience, it is our opinion that the presence of arsenic in above soil samples may be a result of naturally-occurring arsenic and not necessarily indicative of arsenic contamination at these sample locations.

TCLP Metals

The Toxicity Leaching Characteristic Procedure (TCLP) conducted in the laboratory is designed to determine the mobility of analytes that may be present in soil (e.g., to simulate leaching of metals from solids in a municipal landfill). The laboratory results for TCLP metals in the soil samples are provided in Table 4. Also provided in the table is the EPAs Regulatory Limit, as described later in this section.

Table 4
901 H Street, NE Project – Washington D.C.
Soil Sample Results
TCLP - Metals

Results and Regulatory Limits are presented in milligrams per liter (mg/L)
milligrams per liter = parts per million (ppm)

	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	Regulatory Limit
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	5 mg/L
Barium	ND	ND	ND	ND	ND	ND	ND	ND	ND	100 mg/L
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 mg/L
Chromium	ND	ND	ND	ND	ND	ND	0.045	ND	ND	5 mg/L
Lead	0.027	0.018	0.15	0.11	ND	ND	0.021	ND	ND	5 mg/L
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2 mg/L
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 mg/L
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	5 mg/L

mg/L - milligrams per liter = parts per million.

ND = Not detected at a concentration exceeding the laboratory practical quantitation limit.

Regulatory Limit for TCLP tests = EPA's regulatory limit for a characteristic hazardous waste, as cited in Table 1 of 40 CFR 261.24.

Although some TCLP Metals were detected, none of the concentrations exceeded the EPA's regulatory limit for a hazardous waste.

3.3.2 Groundwater

As reflected in Table 5 (on the following page), laboratory analyses of the groundwater samples revealed the presence of TPH-DRO, and certain constituents of VOCs, at concentrations exceeding the laboratory's practical quantitation limit in some of the samples.

Table 5
901 H Street, NE Project – Washington D.C.
Groundwater Sample Results
Petroleum Hydrocarbons and Volatile Organic Compounds

Results and Standards are presented in milligrams per kilogram (mg/kg)
mg/kg = parts per million (ppm)

	Petroleum Hydrocarbons		VOCs		
	TPH-DRO	TPH-GRO	Isopropylbenzene	cis- 1,2-Dichloroethene	Tetrachloroethene
MW-1	0.85	ND	0.0013	ND	ND
MW-2	0.22	ND	ND	0.0037	0.0284
Standard	1*	NA	0.066**	70*	5*

* Tier 1 Standard - District of Columbia Municipal Regulations (DCMR) Title 20 Section 6209.

**The DCMR Tier 1 Standard does not include a standard for the constituent Isopropylbenzene; therefore, MDE's Groundwater Standard for Type I and Type II Aquifers was utilized. The Groundwater Standards are applied to groundwater from Type I and Type II aquifers and to Groundwater Use Areas and generally correspond to the EPA's Maximum Contaminant Levels (MCLs) for drinking water. However, as previously reported, the Site and site vicinity utilize municipal water and the groundwater at the Site is not utilized as a potable water source or for any other purpose.

ND = Not detected at a concentration exceeding the laboratory's practical quantitation limit.

NA = Not applicable, a comparative standard is not presented as levels of the constituent were not detected.

Laboratory analyses of the groundwater sample designated MW-1 revealed the presence of one VOC and TPH-DRO. Laboratory analysis of the groundwater sample designated MW-2 revealed the presence of two VOCs and TPH-DRO. As indicated in Table 5, none of the concentration levels detected exceeded the limits as described in the Tier 1 Standard or the MDE's Groundwater Standard, as applicable. Therefore, it is Hillis-Carnes' opinion the concentrations detected are not an environmental concern at the Site.

4.0 SUMMARY OF FINDINGS AND CONCLUSIONS

Hillis-Carnes has completed an environmental subsurface investigation at the 901 H Street, NE project located in Washington, D.C. Specifically, eleven (11) borings were advanced throughout the Site. At each of the locations, the soils were inspected for evidence of environmental impact (e.g., staining, odors, elevated PID readings, etc.). In addition, a groundwater monitoring well was installed at two of the locations. Per the contract for this assessment, eleven (11) samples were submitted to a laboratory for environmental analyses. Specifically, nine soil and two groundwater samples were submitted.

- Soil

Evidence of impacted soils was not revealed during the drilling activity (i.e., no free liquids were observed, no staining was observed). In addition, PID readings and odors were not detected in the soil samples screened during the drilling activity (refer to Table 1). Further, with the exception of arsenic, the laboratory analysis of the soil samples did not reveal concentrations of VOCs, TPH-GRO or TPH-DRO, RCRA 8 Metals or TCLP levels, as applicable; at concentrations above the comparative standards as presented above (refer to Tables 2, 3 and 4).

With regard to arsenic, as previously reported, the concentration in B.5 (8.2 ppm) only slightly exceeded the USGS background level (7.2 ppm). In addition, based on data collected by Hillis-Carnes during arsenic remediation projects in Maryland (i.e., at golf courses, former orchards), it is Hillis-Carnes' experience that the concentrations of arsenic detected in this sample (and the other samples detecting concentrations of arsenic) appear to be indicative of naturally occurring levels of arsenic. Based on MDE's ATC data (including USGS background levels) and Hillis-Carnes' experience, it is our opinion that the presence of arsenic in the soil samples may be a result of naturally-occurring arsenic and not necessarily indicative of arsenic contamination at these sample locations.

- Groundwater

Visual evidence of contamination (e.g., sheens, free product, odors) was not detected in the water samples collected for this investigation. In addition, the laboratory analysis of the groundwater samples did not reveal concentrations of VOCs, TPH-GRO or TPH-DRO levels, as applicable; at concentrations above the comparative standards as presented above (refer to Table 5).

- Overall Conclusion

Based on the findings of this Environmental Subsurface Investigation, it is Hillis-Carnes' conclusion that evidence of significant contamination in the soil and groundwater at the Site was not revealed. Therefore, it is Hillis-Carnes' opinion that additional investigation with regard to the environmental conditions of the soil and groundwater does not appear warranted.

It should be noted that excavation of on-site soils will be necessary for the proposed future redevelopment of the Site. As appropriate, the findings of this investigation, specifically the laboratory results of the soil analyses, could be provided to the properties/facilities to which the excess soil may be transported to facilitate an evaluation with regard to the acceptance of the soil.

Based on the subsurface conditions encountered in the borings, and the knowledge that excavations will extend to depths on the order of 30± ft below the existing site grades, dewatering will be an important consideration in association with the redevelopment plans. As appropriate, the findings of this investigation, specifically the laboratory results of the groundwater analyses, could be provided to the appropriate personnel (e.g. a subcontractor who specializes in deep foundation excavation drainage) to facilitate an evaluation with regard to the dewatering operation.

5.0 LIMITATIONS

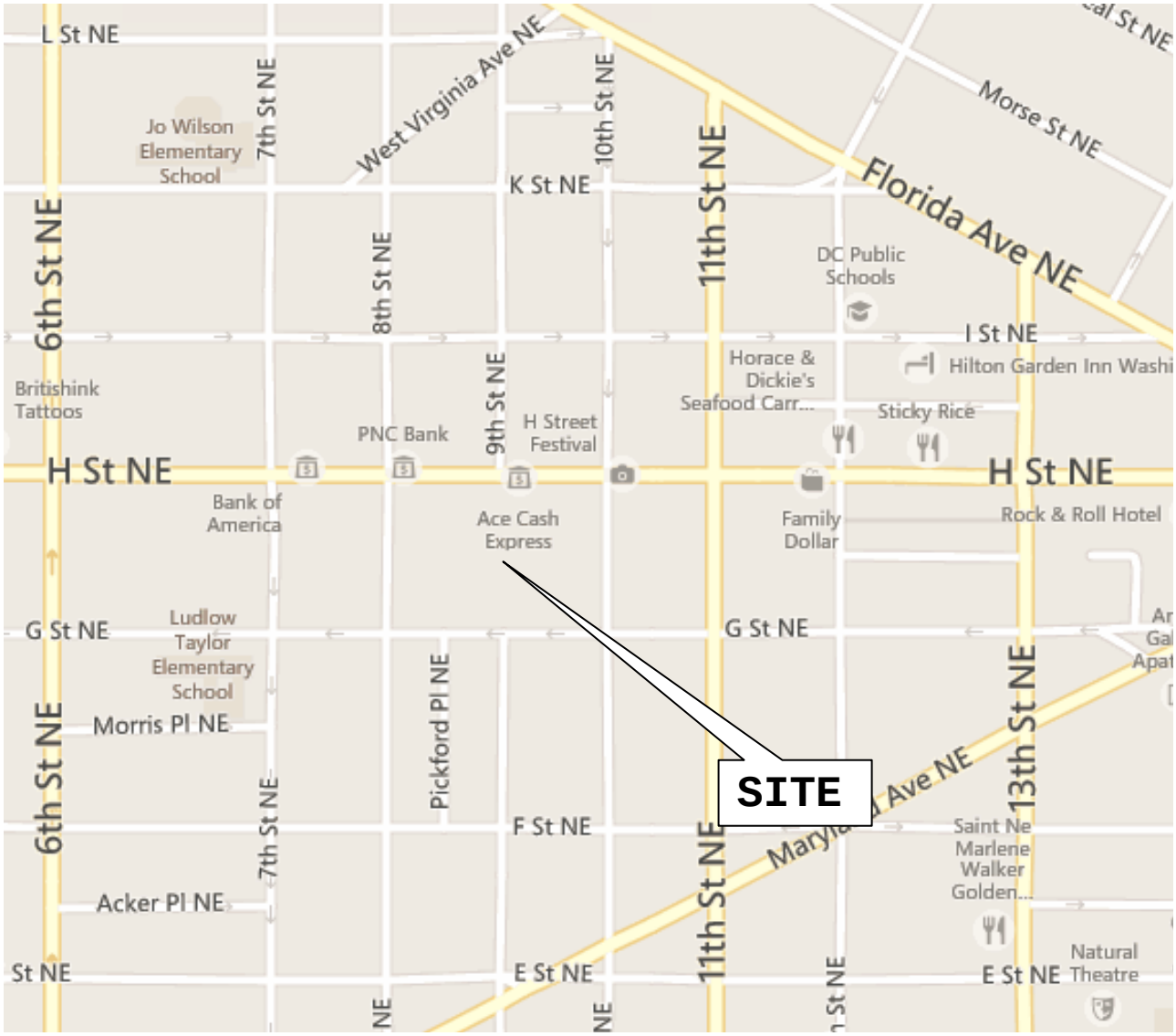
Our professional services have been performed, our findings obtained, and our conclusions prepared in accordance with customary principles and practices in the field of environmental science. This report does not warrant against future operations or conditions, nor does it warrant against conditions present of a type or at locations not investigated.

This report was prepared for the sole use of our Client. The scope of services performed for this assessment may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings or conclusions is at the risk of said user.

This assessment was not intended to be a definitive investigation of subsurface conditions across the entire Site, as the assessment included the advancement of a number of probes at distinct locations and depths on the Site. The conclusions drawn from this assessment are considered reliable; however, there may exist localized variations in the subsurface conditions that have not been completely defined at this time. If evidence of environmental impact is encountered during future re-development activity, the impact should be handled appropriately.

The samples delivered to the analytical laboratory for this project will be retained by the laboratory for thirty (30) days from the date that the samples were received by the laboratory. After 30 days, the laboratory will dispose of the samples. Therefore, if analyses in addition to those presented in this proposal are desired, a request for the additional analyses must be made prior to the expiration of the laboratory's 30-day sample retention policy. Further, although the laboratory retains samples for 30 days, it should be noted that regulatory "holding times" for certain laboratory analyses are less than 30 days.

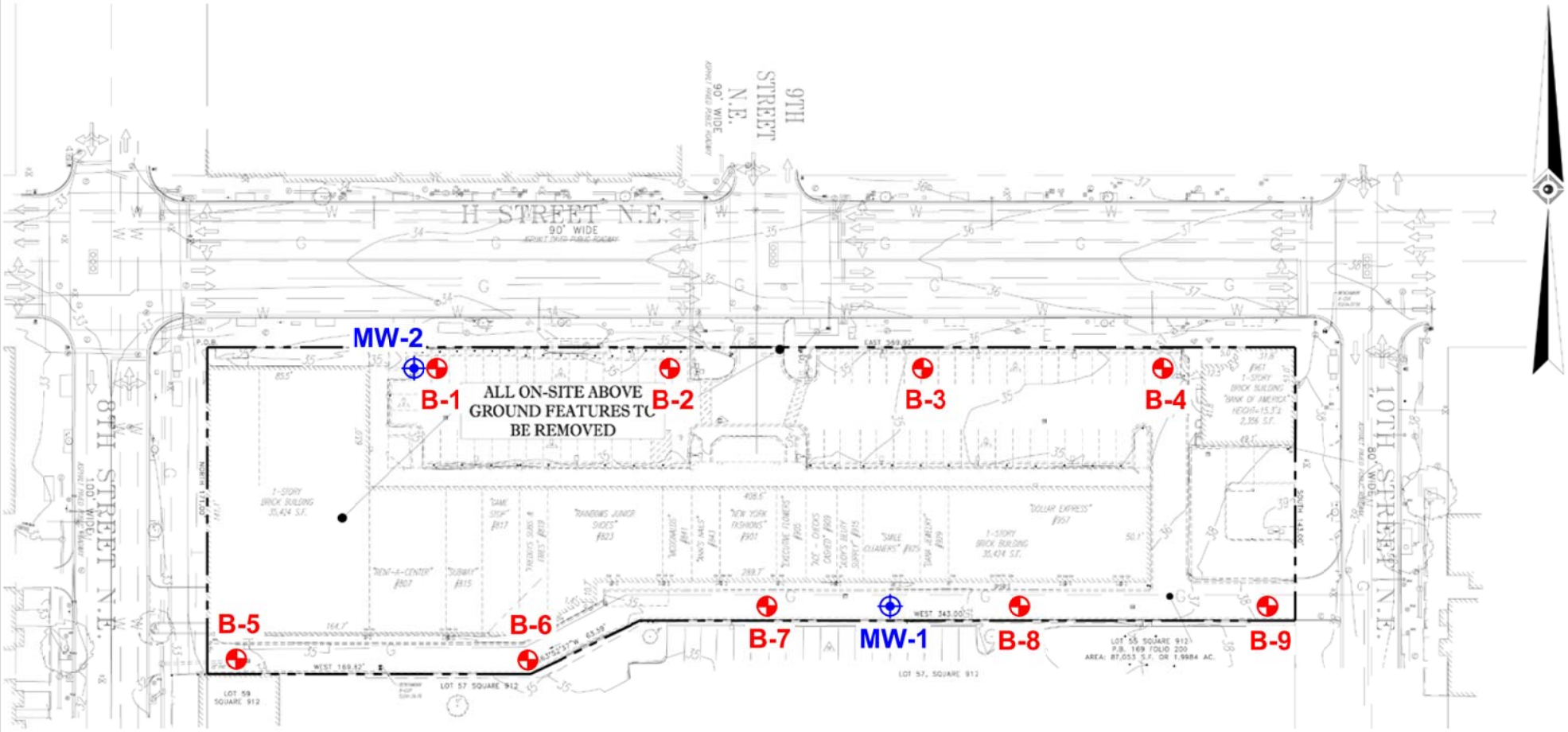
The soil cleanup standards and groundwater standards published in the: MDE's Cleanup Standard Guidance Document; the District of Columbia Municipal Regulations; and the EPAs Residential Screening Tool, as referenced in this report, is several examples of resources that can be utilized to provide some context with regard to laboratory results for soil and groundwater samples. Hillis-Carnes' discussion of these particular standards is not meant to imply that other standards/comparative numbers may not be applicable. Further, an evaluation of the legal obligations of our Client and/or other parties (e.g., an owner of a Site) to report the findings of environmental investigations to regulators are beyond the scope of this project. Therefore, in this report, Hillis-Carnes has not rendered an opinion or provided professional advice regarding reporting obligations, if any, as they may pertain to the findings of this environmental investigation.



HILLIS-CARNES ENGINEERING ASSOCIATES

SITE LOCATION MAP

Date: 12/30/2014 Figure: 1



LEGEND:
- SOIL BORING LOCATION
- MONITORING WELL

HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A Annapolis Junction, Maryland
(410) 880-4788 WWW.HCEA.COM Fax: (410) 880-4098

FIGURE 2 - SAMPLE LOCATION PLAN
901 H STREET, NE
WASHINGTON, DC

PROJ. NO:	14441B
DATE:	10/30/14
SCALE:	1" = 80'
SHEET:	1
DESIGN BY:	RWP
DRAWN BY:	AM
CHECKED BY:	GLG

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 15, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2032833**
Purchase Order:	**102238**	Workorder ID:	**14441B-901 H Street**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Monday, October 6, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2032833 14441B-901 H Street

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2032833001	B-1	Solid	10/6/2014 10:00	10/6/2014 18:56	Jamie Baltimore
2032833002	B-5	Solid	10/3/2014 09:00	10/6/2014 18:56	Jamie Baltimore
2032833003	B-6	Solid	10/2/2014 09:50	10/6/2014 18:56	Jamie Baltimore

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	13.3	SW846 8015D	10/7/14	RMP	10/8/14 22:36	EGO	A
Gasoline Range Organics	ND		ug/kg	12200	SW846 8015D	10/6/14	DD	10/10/14 03:32	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	124		%	72 - 134	SW846 8015D	10/6/14	DD	10/10/14 03:32	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	53.3		%	38 - 118	SW846 8015D	10/7/14	RMP	10/8/14 22:36	EGO	A
VOLATILE ORGANICS										
Acetone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Benzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromochloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromodichloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromoform	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Bromomethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
2-Butanone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Carbon Disulfide	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chlorodibromomethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloroethane	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloroform	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Chloromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Cyclohexane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,4-Dioxane	ND		ug/kg	92.2	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Ethylbenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Freon 113	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
2-Hexanone	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Isopropylbenzene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl acetate	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl cyclohexane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	12.3	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Methylene Chloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Styrene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Tetrachloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Toluene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Trichloroethene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Vinyl Chloride	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
o-Xylene	ND		ug/kg	2.5	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
mp-Xylene	ND		ug/kg	4.9	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	95.3		%	56 - 124	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Dibromofluoromethane (S)	110		%	62 - 123	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/6/14	TMP	10/8/14 15:09	TMP	D
WET CHEMISTRY										
Moisture	25.1		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	74.9		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	ND		mg/kg	2.0	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Barium, Total	27.2		mg/kg	3.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833001** Date Collected: 10/6/2014 10:00 Matrix: Solid

Sample ID: **B-1** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.67	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Chromium, Total	8.3		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Iron, Total	4680		mg/kg	12.6	SW846 6010C	10/7/14	AAM	10/8/14 06:56	TSS	A2
Lead, Total	2.6		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Mercury, Total	ND		mg/kg	0.058	SW846 7471B	10/14/14	MNP	10/14/14 14:31	MNP	A5
Selenium, Total	ND		mg/kg	3.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/7/14	AAM	10/8/14 02:20	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Lead, Total	0.027		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:01	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 13:53	SRT	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	12.7	SW846 8015D	10/7/14	RMP	10/8/14 23:13	EGO	A
Gasoline Range Organics	ND		ug/kg	7650	SW846 8015D	10/3/14	DD	10/10/14 04:09	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	107		%	72 - 134	SW846 8015D	10/3/14	DD	10/10/14 04:09	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	68.3		%	38 - 118	SW846 8015D	10/7/14	RMP	10/8/14 23:13	EGO	A
VOLATILE ORGANICS										
Acetone	12.4		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Benzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromochloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromodichloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromoform	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Bromomethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
2-Butanone	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Carbon Disulfide	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chlorodibromomethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloroethane	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloroform	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Chloromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Cyclohexane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,4-Dioxane	ND		ug/kg	80.2	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Ethylbenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Freon 113	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
2-Hexanone	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Isopropylbenzene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl acetate	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl cyclohexane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	10.7	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Methylene Chloride	3.6		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Styrene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Tetrachloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Toluene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Trichloroethene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Vinyl Chloride	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
o-Xylene	ND		ug/kg	2.1	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
mp-Xylene	ND		ug/kg	4.3	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.5		%	56 - 124	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
4-Bromofluorobenzene (S)	104		%	51 - 128	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Dibromofluoromethane (S)	111		%	62 - 123	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/3/14	TMP	10/8/14 15:32	TMP	D
WET CHEMISTRY										
Moisture	22.1		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	77.9		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	8.2		mg/kg	1.7	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Barium, Total	19.7		mg/kg	2.9	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833002** Date Collected: 10/3/2014 09:00 Matrix: Solid

Sample ID: **B-5** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.57	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Chromium, Total	21.3		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Iron, Total	14200		mg/kg	10.9	SW846 6010C	10/7/14	AAM	10/8/14 06:59	TSS	A2
Lead, Total	3.4		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Mercury, Total	ND		mg/kg	0.063	SW846 7471B	10/14/14	MNP	10/14/14 14:32	MNP	A5
Selenium, Total	ND		mg/kg	2.9	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
Silver, Total	ND		mg/kg	1.1	SW846 6020A	10/7/14	AAM	10/8/14 02:24	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:02	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 13:57	SRT	A4

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ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	12.9	SW846 8015D	10/13/14	LEH	10/13/14 17:24	EGO	A
Gasoline Range Organics	ND		ug/kg	10700	SW846 8015D	10/2/14	DD	10/10/14 04:46	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	115		%	72 - 134	SW846 8015D	10/2/14	DD	10/10/14 04:46	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	62.4		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 17:24	EGO	A
VOLATILE ORGANICS										
Acetone	15.1		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Benzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromochloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromodichloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromoform	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Bromomethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
2-Butanone	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Carbon Disulfide	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chlorodibromomethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloroethane	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloroform	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Chloromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,4-Dioxane	ND		ug/kg	76.8	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Ethylbenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Freon 113	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
2-Hexanone	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Isopropylbenzene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl acetate	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	10.2	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Methylene Chloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Styrene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Tetrachloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Toluene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	5.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Trichloroethene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Vinyl Chloride	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
o-Xylene	ND		ug/kg	2.0	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
mp-Xylene	ND		ug/kg	4.1	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	96.5		%	56 - 124	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
4-Bromofluorobenzene (S)	105		%	51 - 128	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Dibromofluoromethane (S)	112		%	62 - 123	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/2/14	TMP	10/8/14 15:55	TMP	D
WET CHEMISTRY										
Moisture	19.8		%	0.1	S2540G-97			10/8/14 17:40	KED	A
Total Solids	80.2		%	0.1	S2540G-97			10/8/14 17:40	KED	A
METALS										
Arsenic, Total	5.7		mg/kg	1.9	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Barium, Total	13.4		mg/kg	3.1	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032833 14441B-901 H Street

Lab ID: **2032833003** Date Collected: 10/2/2014 09:50 Matrix: Solid

Sample ID: **B-6** Date Received: 10/6/2014 18:56

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.62	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Chromium, Total	8.7		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Iron, Total	9060		mg/kg	10.6	SW846 6010C	10/7/14	AAM	10/8/14 07:03	TSS	A2
Lead, Total	3.1		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Mercury, Total	ND		mg/kg	0.062	SW846 7471B	10/14/14	MNP	10/14/14 14:33	MNP	A5
Selenium, Total	ND		mg/kg	3.1	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
Silver, Total	ND		mg/kg	1.2	SW846 6020A	10/7/14	AAM	10/8/14 02:28	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/9/14	MNP	10/9/14 15:05	MNP	A3
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/9/14	AAM	10/9/14 14:02	SRT	A4

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

34 Dogwood Lane
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Page ___ of ___
Courier: ______
Tracking #: ______

2032833

Co. Name: HCEA (Hillis-Carnes)
Contact (Report to): Robert Pushman
Address:
Phone: 410 880-4788

Bill to (if different than Report to):
PO#: 102238

Project Name/#: 14441B - 901 H. Street
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] Y cpushman@hcea.com
Fax? -Y No.:

***Container Type: CG
***Container Size:
*** Preservative:

ANALYSES/METHOD REQUESTED — Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron	1 GIL / 2 40 MeOH / 2 40 DI (Orelt Stk)	
1	B-1		10/6	10:00	G	SO	1	1	1	1	1	1		
2	B-5		10/3	9:00	|	|	|	|	|	|	|	|		
3	B-6		10/2	9:00	|	|	|	|	|	|	|	|		
4														
5														
6														
7		10/6/14 1907												
8														

(completed by Sample Receiving)
Performed by: (initial here)
Cooler Temp:
Therm. ID: 1794
No. of Coolers:
Notes:

Circle appropriate Y or N.

Correct containers?	Y
Correct sample volume?	Y
Correct preservation?	Y N
Headspace/Volatiles?	Y
Custody seals Present?	N
(If present) Seals intact?	Y N
Received on ice?	Y
COC/Labels complete/accurate?	Y
Container in good condition?	Y

SAMPLED BY (Please Print): Robert Pushman
Project Comments: 10/7/14 0825

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	10/6	1:30	2	Phyllis M. Adams	10/6/14	13:33
3	Phyllis M. Adams	10/6/14		4	[signature] ALS	10/6/14	15:00
5	[signature] ALS	10/6/14	1856	6	[signature]	10/6/14	1856
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] other
EDDs Required? [ ] If yes, format type:
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]
Enter PWSID No.
DOD Criteria Required?

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite **Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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October 13, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2032176**
Purchase Order:		Workorder ID:	**14441B-901H Street**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, October 1, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2032176 14441B-901H Street

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2032176001	B-8	Solid	9/26/2014 09:00	10/1/2014 18:40	Collected by Client
2032176002	B-9	Solid	9/29/2014 10:00	10/1/2014 18:40	Collected by Client
2032176003	B-7	Solid	10/1/2014 10:00	10/1/2014 18:40	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	20.0		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Benzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromoform	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Bromomethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
2-Butanone	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloroethane	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloroform	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Chloromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,4-Dioxane	ND		ug/kg	72.3	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Freon 113	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
2-Hexanone	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methyl acetate	ND	12	ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.6	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Methylene Chloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Styrene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Toluene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2,3-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,2,4-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
o-Xylene	ND		ug/kg	1.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
mp-Xylene	ND		ug/kg	3.9	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.5		%	56 - 124	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Dibromofluoromethane (S)	110		%	62 - 123	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
Toluene-d8 (S)	110		%	59 - 131	SW846 8260B	9/26/14	JPA	10/3/14 14:39	TMP	C
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.5	SW846 8015D	10/2/14	EAG	10/4/14 03:42	EGO	A
Gasoline Range Organics	ND		ug/kg	7080	SW846 8015D	9/26/14	DD	10/9/14 14:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	111		%	72 - 134	SW846 8015D	9/26/14	DD	10/9/14 14:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	87		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 03:42	EGO	A
WET CHEMISTRY										
Moisture	21.6		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	78.4		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	3.4		mg/kg	1.9	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Barium, Total	21.3		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176001** Date Collected: 9/26/2014 09:00 Matrix: Solid

Sample ID: **B-8** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.64	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Chromium, Total	10.1		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Iron, Total	9230		mg/kg	12.8	SW846 6010C	10/2/14	AAM	10/3/14 05:57	TSS	A2
Lead, Total	4.5		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Mercury, Total	ND		mg/kg	0.056	SW846 7471B	10/9/14	MNP	10/9/14 12:48	MNP	A5
Selenium, Total	ND		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:25	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:32	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 12:56	SRT	A3

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	33.5		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Benzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromochloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromodichloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromoform	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Bromomethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
2-Butanone	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Carbon Disulfide	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Carbon Tetrachloride	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chlorodibromomethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloroethane	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloroform	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Chloromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Cyclohexane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dibromoethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,3-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,4-Dichlorobenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Dichlorodifluoromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1-Dichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
cis-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
trans-1,2-Dichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2-Dichloropropane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
cis-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
trans-1,3-Dichloropropene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,4-Dioxane	ND		ug/kg	88.1	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Ethylbenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Freon 113	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
2-Hexanone	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Isopropylbenzene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methyl acetate	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methyl cyclohexane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	11.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Methylene Chloride	3.3		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Styrene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Tetrachloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Toluene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2,3-Trichlorobenzene	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,2,4-Trichlorobenzene	ND		ug/kg	5.9	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,1-Trichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
1,1,2-Trichloroethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Trichloroethene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Trichlorofluoromethane	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Vinyl Chloride	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
o-Xylene	ND		ug/kg	2.3	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
mp-Xylene	ND		ug/kg	4.7	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	99.2		%	56 - 124	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
4-Bromofluorobenzene (S)	108		%	51 - 128	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Dibromofluoromethane (S)	112		%	62 - 123	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
Toluene-d8 (S)	111		%	59 - 131	SW846 8260B	9/29/14	JPA	10/3/14 15:03	TMP	C
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.8	SW846 8015D	10/2/14	EAG	10/4/14 04:19	EGO	A
Gasoline Range Organics	ND		ug/kg	12000	SW846 8015D	9/29/14	DD	10/10/14 02:19	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	109		%	72 - 134	SW846 8015D	9/29/14	DD	10/10/14 02:19	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	91.3		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 04:19	EGO	A
WET CHEMISTRY										
Moisture	23.0		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	77.0		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	5.3		mg/kg	1.9	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Barium, Total	25.6		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176002** Date Collected: 9/29/2014 10:00 Matrix: Solid

Sample ID: **B-9** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.65	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Chromium, Total	18.7		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Iron, Total	11600		mg/kg	12.5	SW846 6010C	10/2/14	AAM	10/3/14 06:09	TSS	A2
Lead, Total	3.0		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Mercury, Total	ND		mg/kg	0.061	SW846 7471B	10/9/14	MNP	10/9/14 12:52	MNP	A5
Selenium, Total	ND		mg/kg	3.2	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
Silver, Total	ND		mg/kg	1.3	SW846 6020A	10/2/14	AAM	10/2/14 15:51	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Lead, Total	ND		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:33	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 13:00	SRT	A3

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS										
Acetone	18.2		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Benzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromochloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromodichloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromoform	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Bromomethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
2-Butanone	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Carbon Disulfide	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Carbon Tetrachloride	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chlorodibromomethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloroethane	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloroform	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Chloromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Cyclohexane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dibromoethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,3-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,4-Dichlorobenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Dichlorodifluoromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1-Dichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
cis-1,2-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
trans-1,2-Dichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2-Dichloropropane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
cis-1,3-Dichloropropene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
trans-1,3-Dichloropropene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,4-Dioxane	ND		ug/kg	65.1	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Ethylbenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Freon 113	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
2-Hexanone	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Isopropylbenzene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methyl acetate	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methyl cyclohexane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	8.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Methylene Chloride	ND	3	ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Styrene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Tetrachloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Toluene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2,3-Trichlorobenzene	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,2,4-Trichlorobenzene	ND		ug/kg	4.3	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,1-Trichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
1,1,2-Trichloroethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Trichloroethene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Trichlorofluoromethane	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Vinyl Chloride	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
o-Xylene	ND		ug/kg	1.7	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
mp-Xylene	ND		ug/kg	3.5	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	56 - 124	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
4-Bromofluorobenzene (S)	107		%	51 - 128	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Dibromofluoromethane (S)	114		%	62 - 123	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/1/14	TMP	10/6/14 12:54	TMP	E
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	6.1	SW846 8015D	10/2/14	EAG	10/4/14 04:56	EGO	A
Gasoline Range Organics	ND		ug/kg	6230	SW846 8015D	10/1/14	DD	10/10/14 08:00	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	72 - 134	SW846 8015D	10/1/14	DD	10/10/14 08:00	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	83.2		%	23 - 133	SW846 8015D	10/2/14	EAG	10/4/14 04:56	EGO	A
WET CHEMISTRY										
Moisture	13.8		%	0.1	S2540G-97			10/2/14 12:10	KED	A
Total Solids	86.2		%	0.1	S2540G-97			10/2/14 12:10	KED	A
METALS										
Arsenic, Total	3.8		mg/kg	1.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Barium, Total	18.0		mg/kg	2.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1

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ANALYTICAL RESULTS

Workorder: 2032176 14441B-901H Street

Lab ID: **2032176003** Date Collected: 10/1/2014 10:00 Matrix: Solid

Sample ID: **B-7** Date Received: 10/1/2014 18:40

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.52	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Chromium, Total	9.7		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Iron, Total	7200		mg/kg	10.0	SW846 6010C	10/2/14	AAM	10/3/14 06:13	TSS	A2
Lead, Total	4.2		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Mercury, Total	ND		mg/kg	0.057	SW846 7471B	10/13/14	MNP	10/13/14 12:17	MNP	A5
Selenium, Total	ND		mg/kg	2.6	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/2/14	AAM	10/2/14 15:55	MO	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Chromium, Total	0.045		mg/L	0.011	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Lead, Total	0.021		mg/L	0.013	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/6/14	MNP	10/6/14 13:35	MNP	A4
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/3/14	TSS	10/3/14 13:04	SRT	A3

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2032176001	1	B-8	SW846 8260B	Methyl acetate
The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The % Recovery was reported as 209 and the control limits were 70 to 130.				
2032176001	2	B-8	SW846 8260B	Methyl acetate
The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methyl acetate. The % Recovery was reported as 265 and the control limits were 70 to 130.				
2032176003	3	B-7	SW846 8260B	Methylene Chloride
The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.				

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F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

VAT

Page 1 of 1

Courier:

Tracking #:

20321176

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: HCEA (Hillis-Carnes)

Contact (Report to): Robert Pushman

Phone: 410-880-4788

Address: 10975 Guilford Road, Suite A
Annapolis Junction

Bill to (if different than Report to): Same

PO#:

Project Name/#: 14441B - 901H Street

ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required:

Approved By:

Email? [✓] -Y rpushman@hcea.com

Fax? [ ] -Y No.:

	***Container Type		CG							
	***Container Size									
	*** Preservative									
	ANALYSES/METHOD REQUESTED		TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron		

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	Enter Number of Containers Per Analysis									
1	B-8		9/26	9:00	G	SO	✓	✓	✓	✓	✓	✓				
2	B-9		9/29	10:00	G	SO	✓	✓	✓	✓	✓	✓				
3	B-7		10/1	10:00	G	SO	✓	✓	✓	✓	✓	✓				
4									Rec.	1 32 oz Jar						
5										2 DI water Vials 2 MEOH Vials						
6												SFS				
7												10/01/14				
8													10/02/14	03 14		

	Custody seals Present?	Correct containers?	Correct sample volume?	Correct preservation?	Received on ice?	Headspace/Volatiles?	COC/Labels complete/accurate?	Container in good condition?	Circle appropriate Y or N.
	N	N	N	N	N	N	N	N	
	Y	Y	Y	Y	Y 3	Y	Y 3	Y	

(completed by Sample Receiver)

Performed by: [illegible]

Cooler Temp: 1

Therm. ID: 296

No. of Coolers:

Notes:

SAMPLED BY (Please Print): Robert Pushman

Project Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	10/1	2:45	2 [signature] ALS	10/1/14	1425
3 [signature] ABS	10/1/14	1840	4 [signature] ALS	10-1-14	1840
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)

EDDs Required? [ ] If yes, format type:

SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ]

State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]

Other

DOD Criteria Required?

ALS FIELD SERVICES: [ ] Pickup [ ] Labor [ ] Composite Sampling [ ] Rental Equipment [ ] Other:

* G=Grab; C=Composite

**Matrix: Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

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October 27, 2014

Ms. Gina Galimberti
Hillis-Carnes Engineering Associates, Inc.
10975 Guilford Road, Suite A
Annapolis Junction, MD 20701

Certificate of Analysis

Revised Report - 10/27/2014 12:04:27 PM - See workorder comment section for explanation

Project Name:	**2014-901 H Street - SCENARIO B**	Workorder:	**2033947**
Purchase Order:	**102238**	Workorder ID:	**2014-901 H Street - SCENARIO B**

Dear Ms. Galimberti:

Enclosed are the analytical results for samples received by the laboratory on Friday, October 10, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Robert Pushman

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2033947001	B-2	Solid	10/8/2014 10:00	10/10/2014 19:12	Mr. Robert Pushman
2033947002	B-3	Solid	10/9/2014 08:30	10/10/2014 19:12	Mr. Robert Pushman
2033947003	B-4	Solid	10/10/2014 09:00	10/10/2014 19:12	Mr. Robert Pushman
2033947004	MW-1	Water	10/9/2014 12:00	10/10/2014 19:12	Mr. Robert Pushman
2033947005	MW-2	Water	10/9/2014 13:00	10/10/2014 19:12	Mr. Robert Pushman
2033947006	Trip Blank	Water	10/10/2014 19:12	10/10/2014 19:12	Mr. Robert Pushman

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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PROJECT SUMMARY

Workorder: 2033947 2014-901 H Street - SCENARIO B

Workorder Comments

Samples 004 and 005 changed from total to dissolved metals per client instruction. VLF 10/14/14

This report was revised to update the testing requested on samples 004 and 005 per client request via email. DJM 10/23/14

Sample Comments

Lab ID: 2033947004 **Sample ID:** MW-1 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

Lab ID: 2033947005 **Sample ID:** MW-2 **Sample Type:** SAMPLE

The percent dry solid per the EPA leaching procedure was less than 0.5%. The sample was filtered to form the leachate.

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	10.8	SW846 8015D	10/13/14	LEH	10/13/14 18:36	EGO	A
Gasoline Range Organics	ND		ug/kg	7460	SW846 8015D	10/8/14	DD	10/14/14 18:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	72 - 134	SW846 8015D	10/8/14	DD	10/14/14 18:07	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	64.4		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 18:36	EGO	A
VOLATILE ORGANICS										
Acetone	18.1		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Benzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromoform	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Bromomethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
2-Butanone	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloroethane	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloroform	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Chloromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,4-Dioxane	ND		ug/kg	71.3	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Freon 113	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
2-Hexanone	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl acetate	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.5	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Methylene Chloride	3.4		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Styrene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Toluene	4.2		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
o-Xylene	ND		ug/kg	1.9	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
mp-Xylene	ND		ug/kg	3.8	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	102		%	56 - 124	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Dibromofluoromethane (S)	115		%	62 - 123	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
Toluene-d8 (S)	107		%	59 - 131	SW846 8260B	10/8/14	TMP	10/13/14 14:53	TMP	D
WET CHEMISTRY										
Moisture	7.4		%	0.1	S2540G-97			10/13/14 10:04	CF	B
Total Solids	92.6		%	0.1	S2540G-97			10/13/14 10:04	CF	B
METALS										
Arsenic, Total	2.4		mg/kg	1.6	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Barium, Total	11.2		mg/kg	2.7	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947001** Date Collected: 10/8/2014 10:00 Matrix: Solid

Sample ID: **B-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.54	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Chromium, Total	9.4		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Iron, Total	4900		mg/kg	9.8	SW846 6010C	10/14/14	AAM	10/22/14 03:07	TSS	A3
Lead, Total	4.6		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Mercury, Total	ND		mg/kg	0.047	SW846 7471B	10/21/14	MNP	10/21/14 14:43	MNP	A5
Selenium, Total	ND		mg/kg	2.7	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
Silver, Total	ND		mg/kg	1.1	SW846 6020A	10/12/14	AAM	10/14/14 05:42	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Lead, Total	0.018		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:11	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:02	TSS	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	ND		mg/kg	11.1	SW846 8015D	10/13/14	LEH	10/13/14 19:46	EGO	A
Gasoline Range Organics	ND		ug/kg	6920	SW846 8015D	10/9/14	DD	10/14/14 18:44	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	110		%	72 - 134	SW846 8015D	10/9/14	DD	10/14/14 18:44	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	76.6		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 19:46	EGO	A
VOLATILE ORGANICS										
Acetone	11.9		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Benzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromochloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromodichloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromoform	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Bromomethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
2-Butanone	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Carbon Disulfide	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Carbon Tetrachloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chlorodibromomethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloroethane	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloroform	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Chloromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dibromoethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Dichlorodifluoromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2-Dichloropropane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,4-Dioxane	ND		ug/kg	73.4	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Ethylbenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Freon 113	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
2-Hexanone	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Isopropylbenzene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl acetate	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl cyclohexane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.8	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Methylene Chloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Styrene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Tetrachloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Toluene	3.4		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Trichloroethene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Trichlorofluoromethane	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Vinyl Chloride	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
o-Xylene	ND		ug/kg	2.0	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
mp-Xylene	ND		ug/kg	3.9	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	97.5		%	56 - 124	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Dibromofluoromethane (S)	114		%	62 - 123	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
Toluene-d8 (S)	110		%	59 - 131	SW846 8260B	10/9/14	TMP	10/13/14 15:17	TMP	D
WET CHEMISTRY										
Moisture	8.2		%	0.1	S2540G-97			10/13/14 10:04	CF	A
Total Solids	91.8		%	0.1	S2540G-97			10/13/14 10:04	CF	A
METALS										
Arsenic, Total	4.8		mg/kg	1.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Barium, Total	18.2		mg/kg	2.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947002** Date Collected: 10/9/2014 08:30 Matrix: Solid

Sample ID: **B-3** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.52	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Chromium, Total	18.5		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Iron, Total	12700		mg/kg	9.2	SW846 6010C	10/14/14	AAM	10/22/14 03:10	TSS	A3
Lead, Total	4.5		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Mercury, Total	ND		mg/kg	0.054	SW846 7471B	10/21/14	MNP	10/21/14 14:46	MNP	A5
Selenium, Total	ND		mg/kg	2.6	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 05:57	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Lead, Total	0.15		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:12	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:06	TSS	A4

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PETROLEUM HC's										
Diesel Range Organics C10-C28	11.9		mg/kg	11.1	SW846 8015D	10/13/14	LEH	10/13/14 20:22	EGO	A
Gasoline Range Organics	ND		ug/kg	6990	SW846 8015D	10/10/14	DD	10/14/14 19:21	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	125		%	72 - 134	SW846 8015D	10/10/14	DD	10/14/14 19:21	DD	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	63.1		%	38 - 118	SW846 8015D	10/13/14	LEH	10/13/14 20:22	EGO	A
VOLATILE ORGANICS										
Acetone	11.0		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Benzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromochloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromodichloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromoform	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Bromomethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
2-Butanone	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Carbon Disulfide	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Carbon Tetrachloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chlorodibromomethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloroethane	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloroform	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Chloromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dibromoethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,3-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,4-Dichlorobenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Dichlorodifluoromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
cis-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
trans-1,2-Dichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2-Dichloropropane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
cis-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
trans-1,3-Dichloropropene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,4-Dioxane	ND		ug/kg	70.1	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Ethylbenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Freon 113	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
2-Hexanone	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Isopropylbenzene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl acetate	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl cyclohexane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methyl t-Butyl Ether	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/kg	9.3	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Methylene Chloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Styrene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Tetrachloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Toluene	3.1		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2,3-Trichlorobenzene	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,2,4-Trichlorobenzene	ND		ug/kg	4.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,1-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
1,1,2-Trichloroethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Trichloroethene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Trichlorofluoromethane	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Vinyl Chloride	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
o-Xylene	ND		ug/kg	1.9	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
mp-Xylene	ND		ug/kg	3.7	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	98.2		%	56 - 124	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
4-Bromofluorobenzene (S)	106		%	51 - 128	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Dibromofluoromethane (S)	115		%	62 - 123	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
Toluene-d8 (S)	109		%	59 - 131	SW846 8260B	10/10/14	TMP	10/13/14 15:40	TMP	D
WET CHEMISTRY										
Moisture	10.3		%	0.1	S2540G-97			10/13/14 10:04	CF	B
Total Solids	89.7		%	0.1	S2540G-97			10/13/14 10:04	CF	B
METALS										
Arsenic, Total	4.8		mg/kg	1.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Barium, Total	17.9		mg/kg	2.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947003** Date Collected: 10/10/2014 Matrix: Solid

Sample ID: **B-4** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
Cadmium, Total	ND		mg/kg	0.50	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Chromium, Total	10.4		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Iron, Total	5130		mg/kg	9.8	SW846 6010C	10/14/14	AAM	10/22/14 03:14	TSS	A3
Lead, Total	3.4		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Mercury, Total	ND		mg/kg	0.047	SW846 7471B	10/21/14	MNP	10/21/14 14:47	MNP	A5
Selenium, Total	ND		mg/kg	2.5	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
Silver, Total	ND		mg/kg	1.0	SW846 6020A	10/12/14	AAM	10/14/14 06:01	ZMC	A1
TCLP METALS										
Arsenic, Total	ND		mg/L	0.056	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Barium, Total	ND		mg/L	1.1	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Cadmium, Total	ND		mg/L	0.0044	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Chromium, Total	ND		mg/L	0.011	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Lead, Total	0.11		mg/L	0.013	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Mercury, Total	ND		mg/L	0.0020	SW846 7470A	10/14/14	MNP	10/14/14 11:13	MNP	A2
Selenium, Total	ND		mg/L	0.044	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4
Silver, Total	ND		mg/L	0.0089	SW846 6010C	10/14/14	AAM	10/15/14 14:23	TSS	A4

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947004** Date Collected: 10/9/2014 12:00 Matrix: Water

Sample ID: **MW-1** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:34	TMP	D
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:34	TMP	D
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
cis-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 16:34	TMP	D
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 16:34	TMP	D
Isopropylbenzene	1.3		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 16:34	TMP	D
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:34	TMP	D

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947004** Date Collected: 10/9/2014 12:00 Matrix: Water

Sample ID: **MW-1** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 16:34	TMP	D
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Tetrachloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:34	TMP	D
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:34	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	117		%	62 - 133	SW846 8260B			10/13/14 16:34	TMP	D
4-Bromofluorobenzene (S)	89.5		%	79 - 114	SW846 8260B			10/13/14 16:34	TMP	D
Dibromofluoromethane (S)	94.5		%	78 - 116	SW846 8260B			10/13/14 16:34	TMP	D
Toluene-d8 (S)	92		%	76 - 127	SW846 8260B			10/13/14 16:34	TMP	D
PETROLEUM HC's										
Diesel Range Organics C10-C28	0.85		mg/L	0.16	SW846 8015D	10/14/14	RMP	10/15/14 10:01	EGO	A
Gasoline Range Organics	ND		ug/L	100	SW846 8015D			10/17/14 14:35	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	109		%	90 - 129	SW846 8015D			10/17/14 14:35	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	72.3		%	26 - 139	SW846 8015D	10/14/14	RMP	10/15/14 10:01	EGO	A

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947005** Date Collected: 10/9/2014 13:00 Matrix: Water

Sample ID: **MW-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:51	TMP	D
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 16:51	TMP	D
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
cis-1,2-Dichloroethene	3.7		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 16:51	TMP	D
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 16:51	TMP	D
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 16:51	TMP	D
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 16:51	TMP	D

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947005** Date Collected: 10/9/2014 13:00 Matrix: Water

Sample ID: **MW-2** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 16:51	TMP	D
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Tetrachloroethene	28.4		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 16:51	TMP	D
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 16:51	TMP	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	115		%	62 - 133	SW846 8260B			10/13/14 16:51	TMP	D
4-Bromofluorobenzene (S)	89.6		%	79 - 114	SW846 8260B			10/13/14 16:51	TMP	D
Dibromofluoromethane (S)	90.1		%	78 - 116	SW846 8260B			10/13/14 16:51	TMP	D
Toluene-d8 (S)	86.5		%	76 - 127	SW846 8260B			10/13/14 16:51	TMP	D
PETROLEUM HC's										
Diesel Range Organics C10-C28	0.22		mg/L	0.16	SW846 8015D	10/14/14	RMP	10/15/14 10:37	EGO	A
Gasoline Range Organics	ND		ug/L	100	SW846 8015D			10/17/14 13:58	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
a,a,a-Trifluorotoluene (S)	106		%	90 - 129	SW846 8015D			10/17/14 13:58	DD	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
o-Terphenyl (S)	73.5		%	26 - 139	SW846 8015D	10/14/14	RMP	10/15/14 10:37	EGO	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947006** Date Collected: 10/10/2014 Matrix: Water

Sample ID: **Trip Blank** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS									
Acetone	ND		ug/L	10.0	SW846 8260B		10/13/14 14:52	TMP	A
Benzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromochloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromodichloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromoform	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Bromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
2-Butanone	ND		ug/L	10.0	SW846 8260B		10/13/14 14:52	TMP	A
Carbon Disulfide	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Carbon Tetrachloride	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chlorodibromomethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloroform	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Chloromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dibromo-3-chloropropane	ND		ug/L	7.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dibromoethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,3-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,4-Dichlorobenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Dichlorodifluoromethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,1-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichloroethane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,1-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
cis-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
trans-1,2-Dichloroethene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,2-Dichloropropane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
cis-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
trans-1,3-Dichloropropene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
1,4-Dioxane	ND		ug/L	320	SW846 8260B		10/13/14 14:52	TMP	A
Ethylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Freon 113	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
2-Hexanone	ND		ug/L	5.0	SW846 8260B		10/13/14 14:52	TMP	A
Isopropylbenzene	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A
Methyl acetate	ND		ug/L	2.0	SW846 8260B		10/13/14 14:52	TMP	A
Methyl cyclohexane	ND		ug/L	1.0	SW846 8260B		10/13/14 14:52	TMP	A

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ANALYTICAL RESULTS

Workorder: 2033947 2014-901 H Street - SCENARIO B

Lab ID: **2033947006** Date Collected: 10/10/2014 Matrix: Water

Sample ID: **Trip Blank** Date Received: 10/10/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
Methyl t-Butyl Ether	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/L	5.0	SW846 8260B			10/13/14 14:52	TMP	A
Methylene Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Styrene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,2,2-Tetrachloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Tetrachloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Toluene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,2,3-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
1,2,4-Trichlorobenzene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,1-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
1,1,2-Trichloroethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Trichloroethene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Trichlorofluoromethane	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
Vinyl Chloride	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
o-Xylene	ND		ug/L	1.0	SW846 8260B			10/13/14 14:52	TMP	A
mp-Xylene	ND		ug/L	2.0	SW846 8260B			10/13/14 14:52	TMP	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	116		%	62 - 133	SW846 8260B			10/13/14 14:52	TMP	A
4-Bromofluorobenzene (S)	93.6		%	79 - 114	SW846 8260B			10/13/14 14:52	TMP	A
Dibromofluoromethane (S)	92.4		%	78 - 116	SW846 8260B			10/13/14 14:52	TMP	A
Toluene-d8 (S)	89.8		%	76 - 127	SW846 8260B			10/13/14 14:52	TMP	A

Vicki Forney

Mrs. Vicki A. Forney
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 1

Courier:
Tracking #:

* 2 0 3 3 9 4 7 *

Co. Name: HCEA (Hillis-Carnes
Contact (Report to): Robert Pushman
Phone: 410-880-4788
Address:

Bill to (if different than Report to):
PO#: 102238

Project Name/#: 14441B - 901 H Street NE
ALS Quote #:

TAT: [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:
Approved By:

Email? [X] Y kpushman@hcea.com
Fax? Y No:

***Container Type: Varies
***Container Size: ALS Provided
*** Preservative: ✓

ANALYSES/METHOD REQUESTED: TPH-DRO, TPH-GRO, VOCs, RCRA 8 Metals, TCLP Metals, Iron

Enter Number of Containers Per Analysis

	Sample Description/Location (as it will appear on the lab report)	COC Comments	Sample Date	Military Time	*G or C	**Matrix	TPH-DRO	TPH-GRO	VOCs	RCRA 8 Metals	TCLP Metals	Iron	
1	B-2		10/8	10:00			✓	✓	✓	✓	✓	✓	each set: 1 32oz G jar, 2 MeOH 40mL, 2 DI 40mL
2	B-3	Sample Jars Mary Read 10/8	10/9	8:30			↓	↓	↓	↓	↓	↓	
3	B-4		10/10	9:00			↓	↓	↓	↓	↓	↓	
4	MW-1	"	10/9	1200			↓	↓	↓	↓	↓	↓	each set: 4 40mL G HCl, 1 P 250mL HNO3, 2 A 1 L H2SO4, 1 A 1L unp.
5	MW-2	"	10/9	13:00			↓	↓	↓	↓	↓		
6	Trip blanks	GHC 10-10-14							4				
7													GHC 10-10-14
8		← 10/10/14 0310											

(completed by Sample Receiving)
Performed by: GHC
Cooler Temp: 2
Therm. ID: TR-296
No. of Coolers:
Notes:

Circle appropriate Y or N.
Correct containers? (Y) N
Correct sample volume? (Y) N
Correct preservation? (Y) N
Headspace/Volatiles? Y (N)
Custody seals Present? Y (N)
(if present) Seals Intact? —
Received on ice? (Y) N
COC/Labels complete/accurate? (Y) N
Container in good condition? (Y) N

SAMPLED BY (Please Print): Robert Pushman

Project Comments: ~~[illegible]~~ filter Water Samples prior to processing. per email 4ts changed from total to dissolved metals GHC 10/14/14

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	10/10	3:00	2	[signature] ALS	10/10	1500
3	[signature] ALS	10/10	1312	4	[signature]	10-10	1912
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] NJ-Reduced [ ] NJ-Full [ ] (other)
EDDs Required? [ ] If yes, format type:
SDWA Forms? yes [ ] yes [ ] yes [ ] yes [ ] Other
State Samples Collected In? MD [ ] NJ [ ] NY [ ] PA [ ]
DOD Criteria Required?

ALS FIELD SERVICES
[ ] Pickup
[ ] Labor
[ ] Composite Sampling
[ ] Rental Equipment
[ ] Other:

* G=Grab; C=Composite
**Matrix: AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater
***Container Type: AG-Amber Glass; CG-Clear Glass, PL-Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

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