



**DATA REPORT
AND PROPOSED ADDITIONAL INVESTIGATION**

TO: Chris Black, U.S. EPA
Dave Favero, RACER TRUST
Grant Trigger, RACER TRUST

FROM: Mike Smith, Applied *EcoSystems*, Inc.

DATE: October 3, 2014

SUBJECT: RACER Flint West Industrial Land (#12990)
Summary of Additional Site Investigation

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ATTACHMENTS:

- Attachment 1: Cross Section Diagrams
- Attachment 2: Groundwater Analytical Tables (All investigations conducted by RACER to-date)
- Attachment 3: Groundwater Analytical Laboratory Report (July, 2014)
- Attachment 4: Soil Analytical Tables (All investigations conducted by RACER to-date)
- Attachment 5: Soil Analytical Laboratory Report (August, 2014)
- Attachment 6: Soil Boring Logs (July, 2014)
- Attachment 7: AKT Chevy-in-the-Hole Data
(Wells sampled in April, 2014. Data reported July 14, 2014)

1.0 INTRODUCTION

Applied *EcoSystems*, Inc. (Æ) completed a groundwater monitoring event at the RACER Trust Flint West Industrial Land - #12990 Site (Site), on June 25, 26, 2014, and soil borings/soil sampling on July 10, 2014, as outlined in the June 23, 2014 Data Report submitted to and approved by the United States Environmental Protection Agency (USEPA).

The Site consists of approximately five acres of land located west of Stevens Street and north of Glenwood Avenue in Flint, Genesee County, Michigan (Figure 1). The Site is developed with a Consumers Energy electrical substation in the central portion. Almost the entire Site consists of concrete pavement, remaining after the demolition of a former manufacturing building. The majority of the Site is secured with a locked chain-link fence.

There were no exceptions to the approved USEPA Scope of Work. See Figure 2 for the locations of all soil borings and monitoring wells at the Site.

2.0 INVESTIGATION ACTIVITIES COMPLETED

Groundwater Monitoring (Task 6)

- All wells were gauged. No non-aqueous phase liquid (NAPL) was encountered. Groundwater contours are illustrated in Figure 3.
- All wells were sampled. Samples were analyzed for volatile organic compounds (VOCs), and the following metals (total and dissolved): arsenic, chromium, copper, lead, selenium, and zinc. Analytical results are attached.
- Installed two soil borings and collected five soil samples (excluding QA/QC samples) at various depths between 12 feet and 20 feet below grade. Samples were analyzed for VOCs, and select samples were also analyzed for Synthetic Precipitation Leachate Procedure (SPLP) – VOCs, dry bulk density, and fraction of organic carbon (FOC). Soil boring logs and analytical results are attached.
- Received (from AKT Peerless) and reviewed monitoring well sampling data from the Chevy-in-the-Hole site for the April, 2014 monitoring event. The data is attached.

3.0 INVESTIGATION RESULTS

Groundwater elevation contours are illustrated in Figure 3. Comparison of groundwater and soil data to current (December 30, 2013) Michigan Department of Environmental Quality (MDEQ) Generic Residential and Non-Residential Cleanup Criteria (GRCC) indicates the following:

Groundwater Results

Metals: Select metals were detected above drinking water and GSI criteria as shown in the table below. The metals concentrations are consistent with expected regional conditions, do not appear to represent a plume, and are believed to be naturally-occurring. Although the MDEQ has published state-wide and regional “background” concentrations for soils, there are no such values published for groundwater. The concentrations are generally consistent with concentrations encountered by AË at other uncontaminated sites in the Flint area, with the exception of chromium, which increases on the adjacent railroad property and lead, which decreased on the railroad property. Total metals results appear to have been influenced by turbidity. Accordingly, the dissolved metals concentrations are considered to be more representative of Site conditions for the purposes of this assessment.

Wells, MW-109S and MW-111S did not produce sufficient groundwater for sample collection for metals analysis.

Table 1.0 – Dissolved Metals Exceedances in Groundwater

Well ID	Metal	Drinking Water Criterion	GSI Criterion	Result
MW-102s	selenium	50	5	66
MW-104s	lead	4	28	25
MW-105sr	lead	4	28	22
	selenium	50	5	8
MW-106s	lead	4	28	23
MW-108s	selenium	50	5	6
MW-110s	lead	4	28	15
MW-112s	arsenic	10	10	19
MW-113s*	chromium	100	160	152
	lead	4	28	5

All results are expressed in ug/L

* Located on the former railroad property to the north of Flint West #12990.

The recent Chevy-in-the-hole data provided did not indicate a concern with chromium, lead, or selenium in wells downgradient from the Flint West Site. Arsenic was detected above criteria in multiple wells on the Chevy-in-the-Hole site. The arsenic identified is consistent with expected naturally-occurring conditions.

VOCs: (VOCs comparison includes the updated criteria published by the MDEQ on December 30, 2013). Exceedances were present as follows:

Table 2.0 – VOCs Exceedances in Groundwater

Well ID	VOC	Drinking Water Criterion	GSI Criterion	Result
MW-105SR	Tetrachloroethene	5	60	26
MW-109S*	Trichloroethene	5	200	104
	Vinyl Chloride	2	13	10
MW-112S	Trichloroethene	5	200	24
	Vinyl Chloride	2	13	21
MW-113S*	Trichloroethene	5	200	69

- All results are expressed in ug/L
- * Located on the former railroad property to the north of Flint West #12990.

Criteria in **red** indicate an exceedance for that pathway. Sample analytical results (tabulated results and reports) are attached. Figure 4 illustrates the GSI and drinking water exceedances.

Chevy-in-the-Hole April 2014 data includes VOC results for samples from multiple wells located on the Chevy-in-the-Hole property. The five closest wells downgradient from the Site are MW-103s, MW-104s, MW-2, WMW-12, and WMW-14. No chlorinated VOCs exceeded applicable criteria, except trichloroethene in MW-2, which was detected at 37 ppb. It is unknown if contamination originating from the Site is responsible for the trichloroethene in this location. VOC impacts are delineated to below criteria upgradient from the Flint River by the following wells: MW-9s, MW-9d, MW-10s, MW-10d, WMW-11, WMW-13, PZ-2, and PZ-4.

Groundwater elevation data suggest a depressed area of the groundwater elevation on the south-central portion of the Site. This anomaly was accompanied by increased concentrations of trichloroethene in wells, MW-105SR and MW-112S. It appears that groundwater flow direction was likely to have been affected by unusually high spring floods and the associated influence of Swartz Creek, which is located to the east of the Site and is a tributary to the Flint River east of the Flint West Site. This suspected isolated change in flow direction may have resulted in migration of contaminants from off-site properties at levels higher than have been typical.

Soil Results

VOCs: Tetrahydrofuran and 2-Butanone were detected in various samples. Based on laboratory qualifiers, these detections are indicative of laboratory artifacts and are not considered further. Exceedances were present as follows:

Table 3.0 – VOCs Exceedances in Soil

Sample ID	VOC	Drinking Water Criterion	GSI Criterion	Result
SB-132 (12')	Vinyl Chloride	40	260	180
	cis-1,2-Dichloroethene	1,400	12,000	2,200
	Trichloroethene	100	4,000	29,500
SB-132 (15')	Vinyl Chloride	40	260	89
	Trichloroethene	100	4,000	13,700
SB-133 (17')	Vinyl Chloride	40	260	46
	cis-1,2-Dichloroethene	1,400	12,000	1,990
	Trichloroethene	100	4,000	11,680
SB-133 (19')	Trichloroethene	100	4,000	10,860
SB-133 (20')	Trichloroethene	100	4,000	7,520

- All results are expressed in ug/kg

Criteria in **red** indicate an exceedance for that pathway. Sample analytical results (tabulated results and reports) are attached. Figure 5 illustrates the GSI and drinking water exceedances.

Note that the soil samples above were collected in saturated soil conditions.

Mobility-Related Parameters:

Sample ID	SPLP – VOCs results (ug/L)	Fraction of Organic Carbon (%)	Dry Bulk Density (g/cc)
SB-132 (12')	Trichloroethene - 22	Not analyzed	Not analyzed
SB-132 (15')	Not analyzed	.025	2.43
SB-133 (17')	Trichloroethene - 31	Not analyzed	Not analyzed
SB-133 (20')	Not analyzed	.034	2.8

The SPLP results indicate that the trichloroethene in soils has the potential to leach to groundwater above drinking water and GSI criteria and that the impacted soils are a potential source for continued groundwater contamination. The fraction of organic carbon and dry bulk density results did not significantly vary from the default values used by the MDEQ to calculate cleanup criteria.

4.0 PROPOSED ADDITIONAL INVESTIGATIONS

Proposed additional investigations are as follows:

1. Conduct gauging/sampling of the existing monitoring wells. The proposed analytical parameters for groundwater samples are:
 - 6 metals: - (the 6 metals observed above criteria in one or more wells, some of which are located off-site on the railroad property: Arsenic, chromium, copper, lead, selenium, and zinc.) Total and dissolved analyses will be conducted on every sample; and
 - VOCs (EPA 8260).

5.0 PROPOSED SCHEDULE:

Field work for the autumn 2014 groundwater monitoring event is expected to be completed in October, 2014. A Data Report will be submitted approximately December 15, 2014.

The target date to submit the Corrective Measures Study (CMS) remains November 1, 2014. Based on soil and groundwater data collected to-date, it appears that the area of highest CVOC impact is located on the north exterior of the former building in a former storage area, with increasing concentrations downgradient on the abandoned railway parcel adjacent to the north. The CMS will evaluate possible on- and off-site sources and various corrective measure options to address the site related CVOC impact on or migrating from the Site.

FIGURES

SITE LOCATION MAP

RACER Flint West

FIGURE

1

DATE

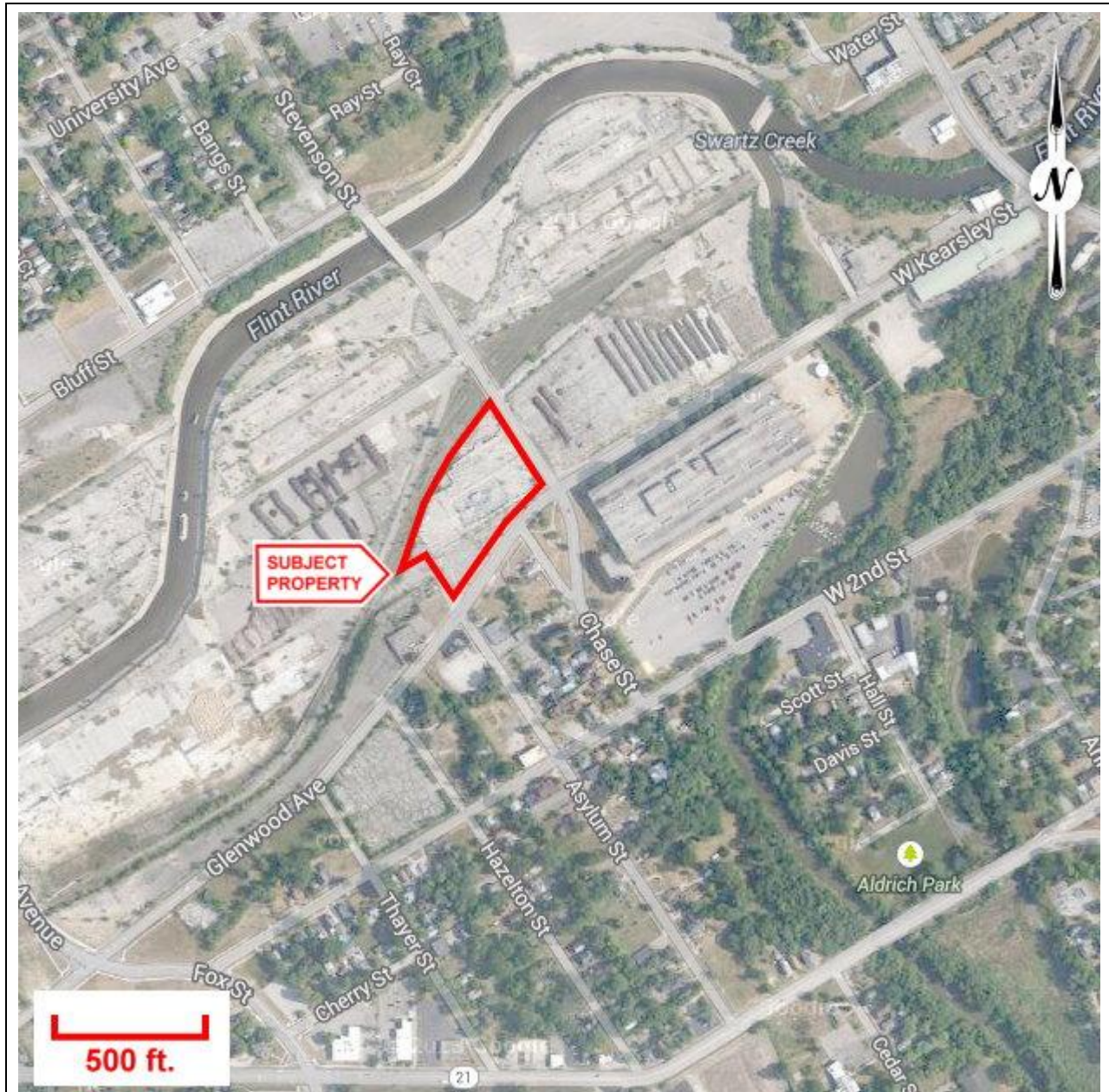
2014

SCALE

As Shown

PROJECT No.

11-4317-102



Source: United States Geological Survey

Property outline is approximate.



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Burton, Michigan 48529

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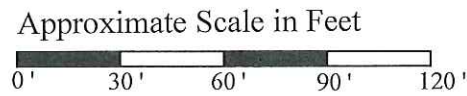
FAX (810) 715-2526

www.AppliedEcoSystems.com



LEGEND

- ⊗ MW Monitoring Well completed by AE
- SB Soil Borings completed by AE
- x— Chain link fence






DATE:	2014	SCALE:	As Shown
PROJECT:	11-4317-102	FIGURE:	2

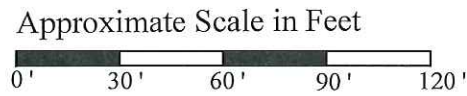
Site Map with Soil Boring and Monitoring Well Locations
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

Applied EcoSystems, Inc.
 Environmental Management, Consulting & Field Services
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LEGEND

-  MW Monitoring Well completed by AE
-  SB Soil Borings completed by AE
-  Chain link fence

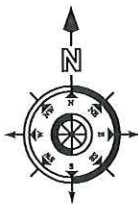


DATE:	2014	SCALE:	As Shown
PROJECT:	11-4317-102	FIGURE:	2

Site Map with Soil Boring and Monitoring Well Locations
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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LEGEND

- ⊗ MW Monitoring Well
- SB Soil borings completed by AE
- ✕ Chain link fence

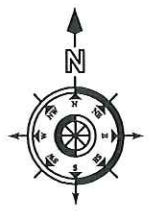
Approximate Scale in Feet



DATE:	2014	SCALE:	As Shown
PROJECT:	11-4317-102	FIGURE:	3

Groundwater Contour Map
July 2014
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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06/26/14 MW-109S			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	5	200	104
Vinyl chloride	2	13	10

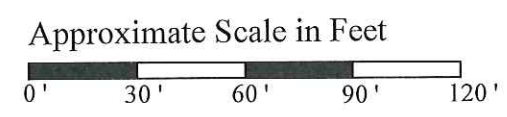
06/25/14 MW-113S			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	5	200	69

06/25/14 MW-106SR			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	5	200	24
Vinyl chloride	2	13	21

06/26/14 MW-105SR			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	5	200	26

LEGEND

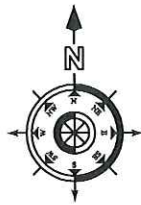
- ⊗ MW Monitoring Well completed by AE
- SB Soil Borings completed by AE
- x— Chain link fence
- Groundwater analytical results in ug/l (ppb)
- Monitoring wells with no data attached indicate NO exceedances of DW or GSI Criteria.
- Groundwater analytical results reflect June 2014 sampling events only



DATE:	2014	SCALE:	As Shown
PROJECT:	11-4317-102	FIGURE:	4

Summary of Drinking Water and GSI Exceedances in Groundwater June 2014
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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LEGEND

- ⊗ MW Monitoring Well completed by AE
- SB Soil Borings completed by AE
- ✕ Chain link fence

Soil Borings with no data attached indicate NO exceedences of DW or GSI Criteria.

Soil analytical results in ug/kg (ppb)

Soil analytical results reflect July 2014 sampling events only

Approximate Scale in Feet



07/10/14 SB-133, (17')			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	100	4000	11680
Vinyl Chloride	40	260	46
cis-1,2-Dichloroethene	1400	12000	1990

07/10/14 SB-133, (19')			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	100	4000	10860

07/10/14 SB-133, (20')			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	100	4000	7520

07/10/14 SB-132, (12')			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	100	4000	29500
Vinyl Chloride	40	260	180
cis-1,2-Dichloroethene	1400	12000	2200

07/10/14 SB-132, (15')			
ANALYTE	DW	GSI	Exceedance
Trichloroethene	100	4000	13700
Vinyl Chloride	40	260	89



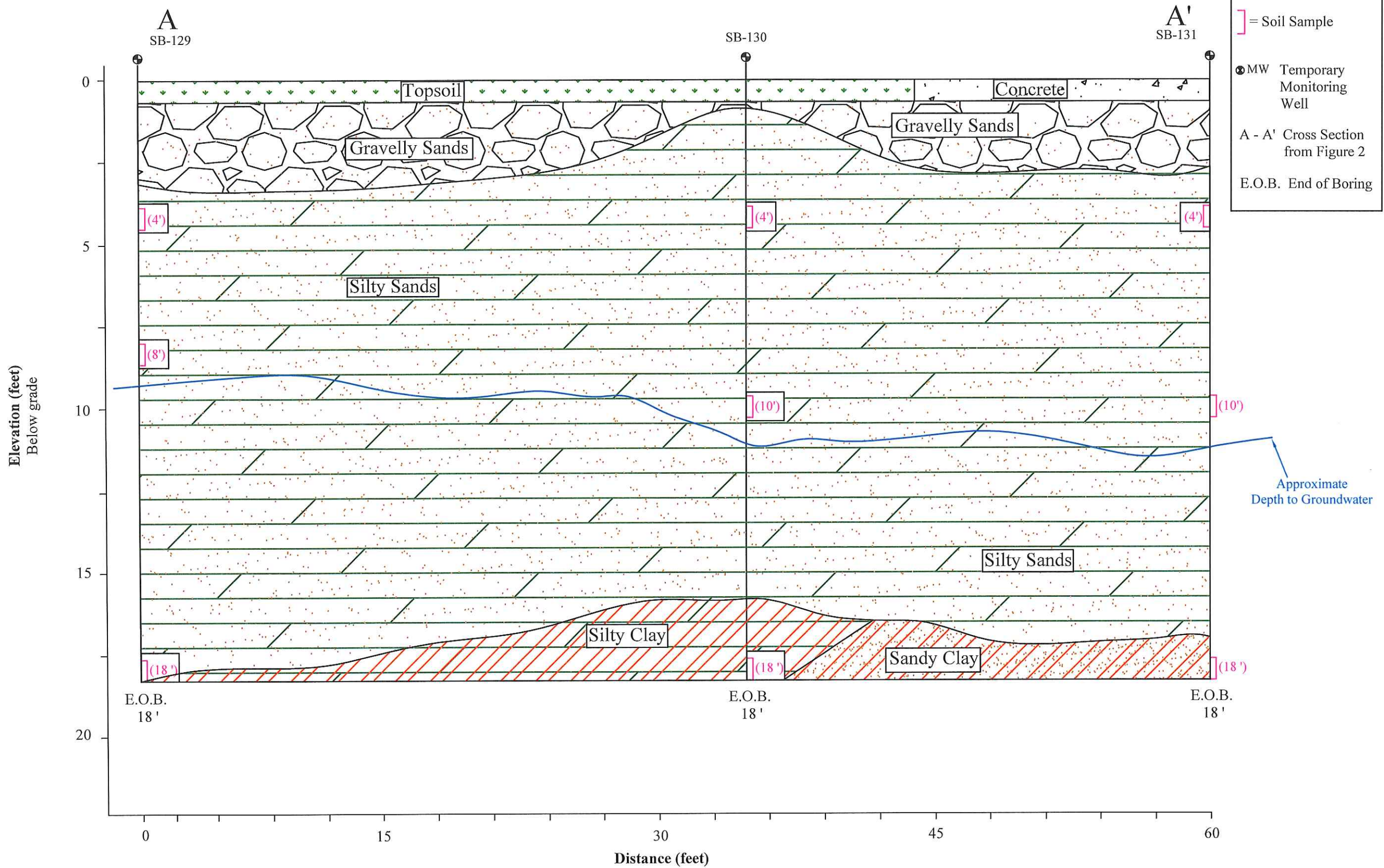
DATE:	2014	SCALE:	As Shown
PROJECT:	11-4317-102	FIGURE:	5

Summary of Drinking Water and GSI Exceedences in Soil July 2014
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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ATTACHMENTS

ATTACHMENT #1: CROSS SECTION DIAGRAMS

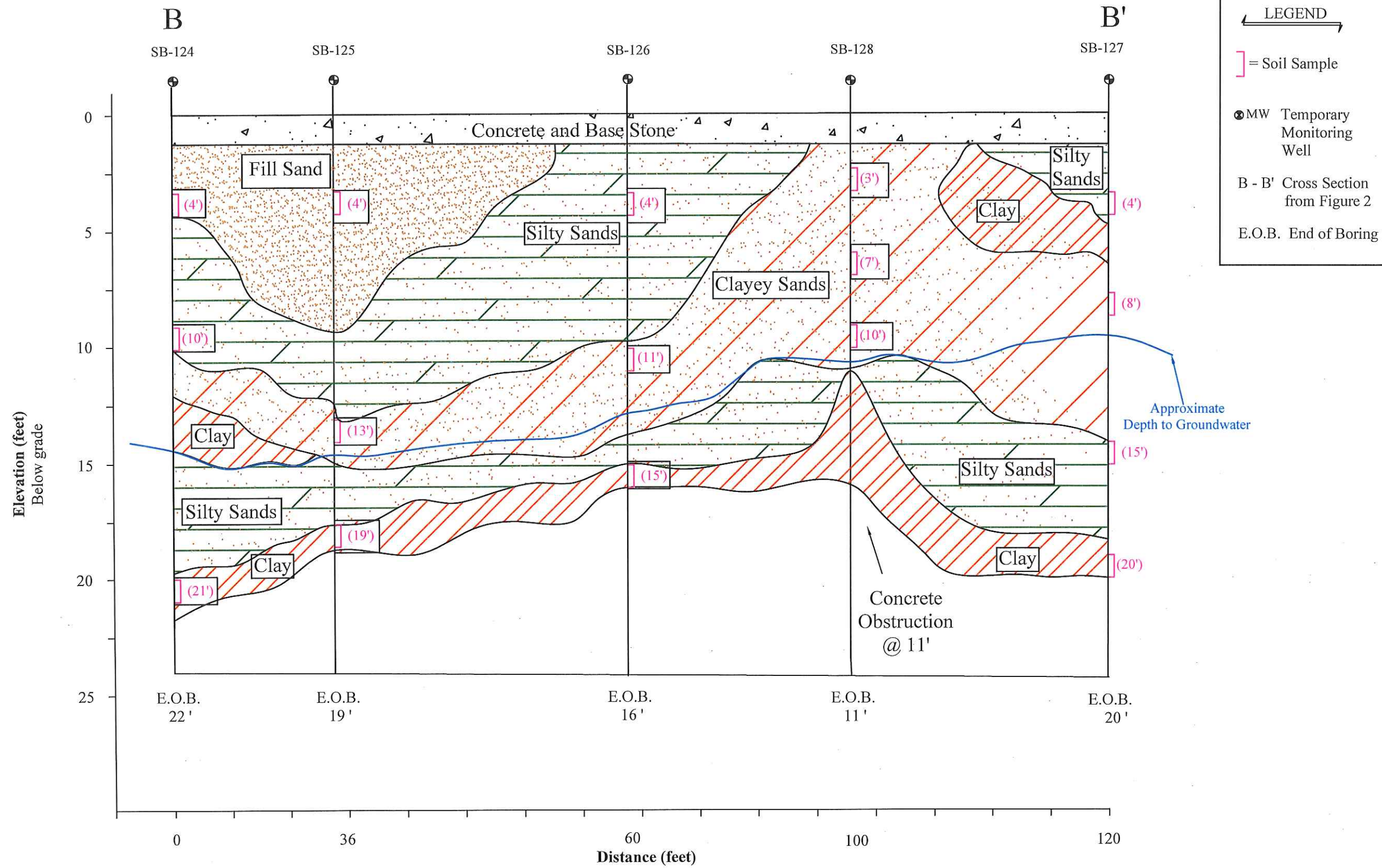


SCALE:	As Noted
DATE:	2014
PROJECT:	11-4317-102
Attachment:	1A

Cross Section Diagram A - A'
Spring Sampling Events
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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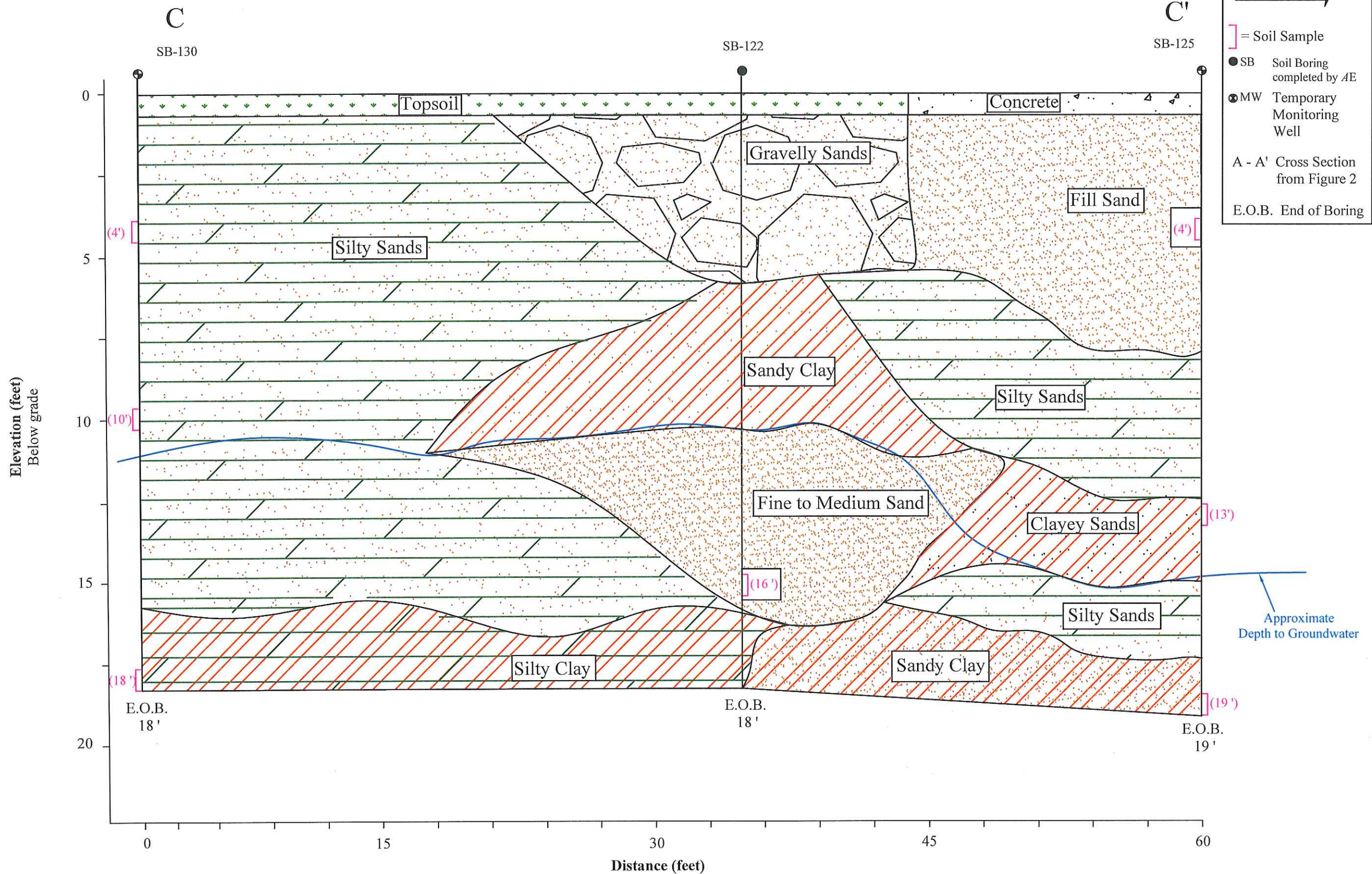


SCALE:	As Noted
DATE:	2014
PROJECT:	11-4317-102
Attachment:	1B

Cross Section Diagram B - B'
Spring Sampling Events
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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LEGEND

- [] = Soil Sample
- SB Soil Boring completed by AE
- ⊙ MW Temporary Monitoring Well
- A - A' Cross Section from Figure 2
- E.O.B. End of Boring

SCALE:	As Noted
DATE:	2014
PROJECT:	11-4317-102
Attachment:	1C

Cross Section Diagram C - C'
Spring Sampling Events
 Racer Flint West - 12990
 Flint West Industrial Land, Flint, MI

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ATTACHMENT #2: GROUNDWATER ANALYTICAL TABLES

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

ANALYTE (ug/L)	Sample ID	Date Collected	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	SB124-TWT	SB125-TWT	SB127-TWT	SB129-TWT	SB130-TWT	SB131-TWT	SB124-TWB	SB125-TWB	SB127-TWB	SB129-TWB	SB130-TWB	SB131-TWB	Dup1	Dup2	Dup3
Arsenic (dissolved)	10.00	10.00				11.00			4.00																						
Chromium (dissolved)	100.00	160.00	G		35.00		22.00	18.00					7.00	12.00		128.00															
Copper (dissolved)	1,000.00	20.00	G										28.00																		
Lead (dissolved)	4.00	28.00	G										24.00																		
Selenium (dissolved)	50.00	5.00					6.00	5.00			5.00																				
Zinc (dissolved)	2,400.00	26.00	G		97.00		23.00	5.00	62.00	5.00	16.00	18.00	81.00	21.00	9.00	24.00	311.00	167.00	82.00	323.00	326.00	103.00	241.00	400.00	166.00	68.00	241.00	191.00	12.00		

ANALYTE (ug/L)	Sample ID	Date Collected	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	SB124-TWT	SB125-TWT	SB127-TWT	SB129-TWT	SB130-TWT	SB131-TWT	SB124-TWB	SB125-TWB	SB127-TWB	SB129-TWB	SB130-TWB	SB131-TWB	Dup1	Dup2	Dup3		
																																DW	GSI
Acetone	730	1,700		1.13	2.36		0.88	1.82	3.58	3.82		1.22	2.11	0.72	5.17	0.93																	
Methyl iodide	NC	NC																															
Carbon disulfide	800	NC																															
2 Butanone (MEK)	13,000	2,200		0.73	0.86		0.41	0.83	0.78	0.94					2.98																		
Chloromethane	260	NC																															
Vinyl Chloride	2.0	13								0.64		18	4	6	0.45																		
Chloroethane	430	1,100											0.6	1.13																			
Trichlorofluoromethane	2,600	NA																															
1,1-Dichloroethene	7.0	130										4	1	0.40																			
Methylene Chloride	5.0	1,500																															
trans-1,2-Dichloroethene	100	1,500										0.92	0.24	0.23																			
1,1-Dichloroethane	880	740								0.21		3.00	2	0.69	2.00																		
cis-1,2-Dichloroethene	70	620								3		59	46	2	26																		
Tetrahydrofuran	95	11,000																															
Chloroform	80	350					3.00				0.35	0.35	0.29																				
1,1,1-Trichloroethane	200	89										0.48	0.75																				
4-Methyl-2-pentanone (M)	1800	1000000000													0.67																		
2-Hexanone	1000	1000000000																															
Carbontetrachloride	5.0	45									2																						
Benzene	5.0	200								0.25																							
Bromodichloromethane	80.0	NC					0.89																										
Trichloroethene	5.0	200		3	2					4		102	92	3	23																		
Toluene	790	270							0.35	0.63																							
Tetrachloroethene	5.0	60							47																								
Chlorobenzene	100	25																															
Styrene	100	80																															
Ethylbenzene	74	18																															
Total Xylenes	280	41																															
1,2-Dichlorobenzene	600	13																															
1,2,4-Trimethylbenzene	63	17																															
1,2,3-Trimethylbenzene	NC	NC							0.07	0.07																							
Naphthalene	520	11																															
2-Methylnaphthalene	260	19																															

NOTES:

- Blank cells indicate no detectable concentrations
- X Exceeds residential and non-residential DW criteria
- X Exceeds GSI criteria
- X Exceeds both DW and GSI criteria
- X Compound also found in associated method blank, suggesting a laboratory artifact.
- NC Insufficient data to develop criterion/no criterion
- G Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

GROUNDWATER ANALYTICAL DATA
RACER - Flint West #12990

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected	6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14	6/26/14			
ANALYTE (ug/L)	DW	GSI																
Arsenic (dissolved)	10.00	10.00												19				
Chromium (dissolved)	100.00	160.00	G		51										152			
Copper (dissolved)	1,000.00	20.00	G												4			
Lead (dissolved)	4.00	28.00	G				25	22	23			15			5			
Selenium (dissolved)	50.00	5.00			66			8			6							
Zinc (dissolved)	2,400.00	26.00	G	5	11				10			5	7			8	13	

	Sample ID	MW-100S	MW-101S	MW-102S	MW-103S	MW-104S	MW-105SR	MW-106S	MW-107S	MW-108S	MW-109S	MW-110S	MW-111S	MW-112S	MW-113S	Dup1	Dup2	Dup3
	Date Collected	6/25/14	6/25/14	6/25/14	6/26/14	6/25/14	6/26/14	6/25/14	6/25/14	6/26/14	6/26/14	6/26/14	6/26/14	6/25/14	6/26/14			
ANALYTE (ug/L)	DW	GSI																
Acetone	730	1,700		1.74	1.45	2.04	2.67	1.55	1.86	1.59	2.82	1.32	1.47	1.29	1.48	4.93	1.32	
Methyl iodide	NC	NC																
Carbon disulfide	800	NC													0.42	0.36		
2 Butanone (MEK)	13,000	2,200							0.4	0.65	0.29		0.29	1.99				
Chloromethane	260	NC	0.32				0.34									0.29		
Vinyl Chloride	2.0	13									10			21	2			
Chloroethane	430	1,100												2.9				
trichlorofluoromethane	2,600	NA																
1,1-Dichloroethene	7.0	130										4		2.00	0.39			
Methylene Chloride	5.0	1,500																
trans-1,2-Dichloroethene	100	1,500										0.7		0.64	0.24			
1,1-Dichloroethane	880	740												1.00	3.00			
cis-1,2-Dichloroethene	70	620	0.62											7	59			
Tetrahydrofuran	95	11,000										70.0						
Chloroform	80	350					5.00		0.22		0.5	0.37			0.320			
1,1,1-Trichloroethane	200	89									0.50				1.00			
4-Methyl-2-pentanone (M	1800	1000000000												0.83				
2-Hexanone	1000	1000000000												1.46				
Carbontetrachloride	5.0	45									2							
Benzene	5.0	200																
Bromodichloromethane	80.0	NC					0.82											
Trichloroethene	5.0	200	5	1	3			26		2		104	2	24	69			
Toluene	790	270																
Tetrachloroethene	5.0	60																
Chlorobenzene	100	25																
Styrene	100	80																
Ethylbenzene	74	18																
Total Xylenes	280	41																
1,2-Dichlorobenzene	600	13																
1,2,4-Trimethylbenzene	63	17																
1,2,3-Trimethylbenzene	NC	NC																
Naphthalene	520	11																
2-Methylnaphthalene	260	19																

NOTES:

	Blank cells indicate no detectable concentrations
X	Exceeds residential and non-residential DW criteria
X	Exceeds GSI criteria G
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
G	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

ATTACHMENT #3: GROUNDWATER ANALYTICAL LABORATORY REPORT



Analytical Laboratory Report

Report ID: S61651.01(01)
Generated on 07/09/2014

Report to

Attention: Jesse Anderson
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526
Email: janderson@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:

Kevin George (kgeorge@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S61651.01-S61651.10
Project: RACER Flint West
Collected Date: 06/25/2014
Submitted Date/Time: 06/26/2014 10:00
Sampled by: Jesse Anderson
P.O. #: PO219269

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Sample Summary (10 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S61651.01	MW 104 S	Groundwater	06/25/2014 16:00
S61651.02	MW 101 S	Groundwater	06/25/2014 10:00
S61651.03	MW 102 S	Groundwater	06/25/2014 11:00
S61651.04	MW 112 S	Groundwater	06/25/2014 12:00
S61651.05	MW 100 S	Groundwater	06/25/2014 15:00
S61651.06	MW 107 S	Groundwater	06/25/2014 13:00
S61651.07	MW 106 SR	Groundwater	06/25/2014 14:00
S61651.08	Duplicate	Groundwater	06/25/2014 00:01
S61651.09	Trip Blank	Liquid	06/25/2014 00:01
S61651.10	Field Blank	Liquid	06/25/2014 00:01



Analytical Laboratory Report

Lab Sample ID: S61651.01
 Sample Tag: MW 104 S
 Collected Date/Time: 06/25/2014 16:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH		
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH		
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR		

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 17:42	JRH	0.00023	
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 17:37	JRH	0.00023	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:42	JRH	0.00014	
Chromium	0.503	mg/L	0.005	E200.8	07/08/14 17:37	JRH	0.00014	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 17:42	JRH	0.00019	
Copper	0.020	mg/L	0.004	E200.8	07/08/14 17:37	JRH	0.00019	
Lead, Dissolved	0.025	mg/L	0.003	E200.8	07/08/14 17:42	JRH	0.00020	
Lead	0.021	mg/L	0.003	E200.8	07/08/14 17:37	JRH	0.00020	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:42	JRH	0.00048	
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 17:37	JRH	0.00048	
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 12:02	JRH	0.0014	
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 11:57	JRH	0.0014	

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 17:18	WAT	0.50	
Acetone	1.55	ug/L	50	SW8260B	07/07/14 17:18	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 17:18	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 17:18	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.50	
Chloromethane	0.34	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.26	J
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 17:18	WAT	1.3	
Chloroform	5	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.21	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.01 (continued)

Sample Tag: MW 104 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 17:18	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 17:18	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
Bromodichloromethane	0.82	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.23	J
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 17:18	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:18	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 17:18	WAT	0.16	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.02
 Sample Tag: MW 101 S
 Collected Date/Time: 06/25/2014 10:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 17:48	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 17:45	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:48	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 17:45	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 17:48	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 17:45	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 17:48	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 17:45	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:48	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 17:45	JRH	0.00048
Zinc, Dissolved	0.011	mg/L	0.005	E200.8	07/09/14 12:07	JRH	0.0014
Zinc	0.011	mg/L	0.005	E200.8	07/09/14 12:04	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 17:39	WAT	0.50
Acetone	1.45	ug/L	50	SW8260B	07/07/14 17:39	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 17:39	WAT	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 17:39	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 17:39	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.02 (continued)

Sample Tag: MW 101 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 17:39	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 17:39	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.16	
Trichloroethene	1	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 17:39	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 17:39	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 17:39	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.03
 Sample Tag: MW 102 S
 Collected Date/Time: 06/25/2014 11:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 17:53	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 17:50	JRH	0.00023
Chromium, Dissolved	0.051	mg/L	0.005	E200.8	07/08/14 17:53	JRH	0.00014
Chromium	0.059	mg/L	0.005	E200.8	07/08/14 17:50	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 17:53	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 17:50	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 17:53	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 17:50	JRH	0.00020
Selenium, Dissolved	0.006	mg/L	0.005	E200.8	07/08/14 17:53	JRH	0.00048
Selenium	0.006	mg/L	0.005	E200.8	07/08/14 17:50	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 12:11	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 12:09	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 18:01	WAT	0.50
Acetone	2.04	ug/L	50	SW8260B	07/07/14 18:01	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 18:01	WAT	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 18:01	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 18:01	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.03 (continued)

Sample Tag: MW 102 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 18:01	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 18:01	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.16	
Trichloroethene	3	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 18:01	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:01	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:01	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.04
 Sample Tag: MW 112 S
 Collected Date/Time: 06/25/2014 12:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	0.019	mg/L	0.002	E200.8	07/08/14 17:59	JRH	0.00023
Arsenic	0.121	mg/L	0.002	E200.8	07/08/14 17:56	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:59	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 17:56	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 17:59	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 17:56	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 17:59	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 17:56	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 17:59	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 17:56	JRH	0.00048
Zinc, Dissolved	0.008	mg/L	0.005	E200.8	07/09/14 12:16	JRH	0.0014
Zinc	0.008	mg/L	0.005	E200.8	07/09/14 12:14	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 18:23	WAT	0.50
Acetone	4.93	ug/L	50	SW8260B	07/07/14 18:23	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.25
Carbon disulfide	0.42	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 18:23	WAT	0.57
2-Butanone (MEK)	1.99	ug/L	25	SW8260B	07/07/14 18:23	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.26
Vinyl chloride	21	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.32
Chloroethane	2.90	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.33
1,1-Dichloroethene	2	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.29
trans-1,2-Dichloroethene	0.64	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20
1,1-Dichloroethane	1	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20
cis-1,2-Dichloroethene	7	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 18:23	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.04 (continued)

Sample Tag: MW 112 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	0.83	ug/L	50	SW8260B	07/07/14 18:23	WAT	0.14	J
2-Hexanone	1.46	ug/L	50	SW8260B	07/07/14 18:23	WAT	0.29	J
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.16	
Trichloroethene	24	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 18:23	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:23	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:23	WAT	0.16	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.05
 Sample Tag: MW 100 S
 Collected Date/Time: 06/25/2014 15:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 18:04	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 18:02	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:04	JRH	0.00014
Chromium	0.007	mg/L	0.005	E200.8	07/08/14 18:02	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 18:04	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 18:02	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 18:04	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 18:02	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:04	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 18:02	JRH	0.00048
Zinc, Dissolved	0.005	mg/L	0.005	E200.8	07/09/14 12:21	JRH	0.0014
Zinc	0.005	mg/L	0.005	E200.8	07/09/14 12:18	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 18:45	WAT	0.50	
Acetone	1.74	ug/L	50	SW8260B	07/07/14 18:45	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 18:45	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 18:45	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.50	
Chloromethane	0.32	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.26	J
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
cis-1,2-Dichloroethene	0.62	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.26	J
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 18:45	WAT	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.21	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.05 (continued)

Sample Tag: MW 100 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 18:45	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 18:45	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.16	
Trichloroethene	5	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 18:45	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 18:45	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 18:45	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.06
 Sample Tag: MW 107 S
 Collected Date/Time: 06/25/2014 13:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH		
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH		
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR		

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 18:24	JRH	0.00023	
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 18:21	JRH	0.00023	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:24	JRH	0.00014	
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 18:21	JRH	0.00014	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 18:24	JRH	0.00019	
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 18:21	JRH	0.00019	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 18:24	JRH	0.00020	
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 18:21	JRH	0.00020	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:24	JRH	0.00048	
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 18:21	JRH	0.00048	
Zinc, Dissolved	0.005	mg/L	0.005	E200.8	07/09/14 12:35	JRH	0.0014	
Zinc	0.005	mg/L	0.005	E200.8	07/09/14 12:33	JRH	0.0014	

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 19:07	WAT	0.50	
Acetone	2.82	ug/L	50	SW8260B	07/07/14 19:07	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 19:07	WAT	0.57	
2-Butanone (MEK)	0.40	ug/L	25	SW8260B	07/07/14 19:07	WAT	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 19:07	WAT	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.21	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.06 (continued)

Sample Tag: MW 107 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 19:07	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 19:07	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.16	
Trichloroethene	2	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 19:07	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:07	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:07	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.07
 Sample Tag: MW 106 SR
 Collected Date/Time: 06/25/2014 14:00
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 18:30	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 18:27	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:30	JRH	0.00014
Chromium	1.51	mg/L	0.005	E200.8	07/08/14 18:27	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 18:30	JRH	0.00019
Copper	0.016	mg/L	0.004	E200.8	07/08/14 18:27	JRH	0.00019
Lead, Dissolved	0.023	mg/L	0.003	E200.8	07/08/14 18:30	JRH	0.00020
Lead	0.017	mg/L	0.003	E200.8	07/08/14 18:27	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:30	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 18:27	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 12:40	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 12:37	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 19:29	WAT	0.50	
Acetone	1.59	ug/L	50	SW8260B	07/07/14 19:29	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 19:29	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 19:29	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 19:29	WAT	1.3	
Chloroform	0.22	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.21	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.07 (continued)

Sample Tag: MW 106 SR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 19:29	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 19:29	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 19:29	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:29	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:29	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.08
 Sample Tag: Duplicate
 Collected Date/Time: 06/25/2014 00:01
 Matrix: Groundwater
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR
1	250ml Plastic	None	Yes	13.2	IR
1	125ml Plastic	HNO3	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 09:15	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 18:35	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 18:32	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:35	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 18:32	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 18:35	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 18:32	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 18:35	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 18:32	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 18:35	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 18:32	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 12:44	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 12:42	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 19:50	WAT	0.50
Acetone	0.96	ug/L	50	SW8260B	07/07/14 19:50	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 19:50	WAT	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 19:50	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 19:50	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.08 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 19:50	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 19:50	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.16	
Trichloroethene	1	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 19:50	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 19:50	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 19:50	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.09
 Sample Tag: Trip Blank
 Collected Date/Time: 06/25/2014 00:01
 Matrix: Liquid
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	
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Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 16:34	WAT 0.50	
Acetone	7.84	ug/L	50	SW8260B	07/07/14 16:34	WAT 0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 16:34	WAT 0.57	
2-Butanone (MEK)	2.64	ug/L	25	SW8260B	07/07/14 16:34	WAT 0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 16:34	WAT 1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 16:34	WAT 0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 16:34	WAT 0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT 0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT 0.24	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.09 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 16:34	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:34	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 16:34	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61651.10
 Sample Tag: Field Blank
 Collected Date/Time: 06/25/2014 00:01
 Matrix: Liquid
 COC Reference: 78156

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	13.2	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	
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Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 16:56	WAT 0.50	
Acetone	8.32	ug/L	50	SW8260B	07/07/14 16:56	WAT 0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 16:56	WAT 0.57	
2-Butanone (MEK)	2.52	ug/L	25	SW8260B	07/07/14 16:56	WAT 0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 16:56	WAT 1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.21	
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 16:56	WAT 0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 16:56	WAT 0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT 0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT 0.24	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61651.10 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 16:56	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 16:56	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 16:56	WAT	0.16	



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C.O.C. PAGE # 1 OF 1

78156

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME: **JESSE ANDERSON**
 COMPANY:
 ADDRESS:
 CITY: STATE: ZIP CODE:
 PHONE NO. 248 688 2475 FAX NO. (810) 715 2526 P.O. NO.:
 E-MAIL ADDRESS: QUOTE NO.:

CONTACT NAME: **JESSE ANDERSON** SAME
 COMPANY: **APPLIED ELO SYSTEMS**
 ADDRESS:
 CITY: **BURTON** STATE: **MI** ZIP CODE: **48529**
 PHONE NO. **510 715 2525** E-MAIL ADDRESS: **JANDERSON@APPLIED ELO SYSTEMS.COM**

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME: **ROCKE FIGHT WEST** SAMPLER(S) - PLEASE PRINT/SIGN NAME: **JESSE ANDERSON**
 TURNAROUND TIME REQUIRED: 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED: STD LEVEL II LEVEL III LEVEL IV EDD OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

Containers & Preservatives:
 Certifications:
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations:
 Detroit New York
 Other
 Special Instructions:

MERIT LAB NO. FOR LAB USE ONLY	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives										Special Instructions		
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOC's	Trace Metals	Dissolved Metals			
61651.01	6/25/14	4pm	MW 104 S	GW	5	X	X	X										S = Letter S (sam)
.02		10 AM	MW 101 S															
.03		11 AM	MW 102 S															
.04		12 pm	MW 112 S															
.05		3pm	MW 100 S															X METALS
.06		1pm	MW 107 S															ARSENIC
.07		2pm	MW 106 SR															LEAD ZINC
.08			Duplicate MW 104 S															SELENIUM
																		COPPER
																		CHROMIUM
.09			TRIP blank	L	3		X											NO
.10			FIELD blank	L	3		X											NO

RELINQUISHED BY: Sampler DATE: TIME:
 SIGNATURE/ORGANIZATION:
 RECEIVED BY: DATE: TIME:
 SIGNATURE/ORGANIZATION:
 RELINQUISHED BY: DATE: TIME:
 SIGNATURE/ORGANIZATION:
 RECEIVED BY: DATE: TIME:
 SIGNATURE/ORGANIZATION:

RELINQUISHED BY: DATE: TIME:
 SIGNATURE/ORGANIZATION: *Denise J. Hart*
 RECEIVED BY: DATE: TIME:
 SIGNATURE/ORGANIZATION: *Kevin George* 6/26/14 1000
 SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL 13.2
 YES NO
 SEAL NO. SEAL INTACT INITIALS
 YES NO



Analytical Laboratory Report

Report ID: S61665.01(01)
Generated on 07/09/2014

Report to

Attention: Jesse Anderson
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526
Email: janderson@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Kevin George (kgeorge@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S61665.01-S61665.08
Project: RACER Flint West
Collected Date: 06/25/2014 - 06/26/2014
Submitted Date/Time: 06/26/2014 14:40
Sampled by: Jesse Anderson
P.O. #: PO219269

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S61665.01	MW 103 S	Groundwater	06/26/2014 09:00
S61665.02	MW 108 S	Groundwater	06/26/2014 10:00
S61665.03	MW 109 S	Groundwater	06/26/2014 11:00
S61665.04	MW 113 S	Groundwater	06/26/2014 12:00
S61665.05	MW 111 S	Groundwater	06/26/2014 08:00
S61665.06	MW 105 S	Groundwater	06/25/2014 17:00
S61665.07	MW 110 S	Groundwater	06/26/2014 13:00
S61665.08	Duplicate	Groundwater	06/26/2014 00:01



Analytical Laboratory Report

Lab Sample ID: S61665.01
 Sample Tag: MW 103 S
 Collected Date/Time: 06/26/2014 09:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Extraction / Prep.								
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH		
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH		
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR		

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:06	JRH	0.00023	
Arsenic	0.056	mg/L	0.002	E200.8	07/08/14 19:01	JRH	0.00023	
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:06	JRH	0.00014	
Chromium	0.011	mg/L	0.005	E200.8	07/08/14 19:01	JRH	0.00014	
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:06	JRH	0.00019	
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 19:01	JRH	0.00019	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 19:06	JRH	0.00020	
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 19:01	JRH	0.00020	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:06	JRH	0.00048	
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 19:01	JRH	0.00048	
Zinc, Dissolved	0.011	mg/L	0.005	E200.8	07/09/14 13:05	JRH	0.0014	
Zinc	0.010	mg/L	0.005	E200.8	07/09/14 13:01	JRH	0.0014	

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 20:12	WAT	0.50	
Acetone	2.67	ug/L	50	SW8260B	07/07/14 20:12	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 20:12	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 20:12	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 20:12	WAT	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.21	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.01 (continued)

Sample Tag: MW 103 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 20:12	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 20:12	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 20:12	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:12	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:12	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.02
 Sample Tag: MW 108 S
 Collected Date/Time: 06/26/2014 10:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:12	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 19:09	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:12	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 19:09	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:12	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 19:09	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 19:12	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 19:09	JRH	0.00020
Selenium, Dissolved	0.006	mg/L	0.005	E200.8	07/08/14 19:12	JRH	0.00048
Selenium	0.007	mg/L	0.005	E200.8	07/08/14 19:09	JRH	0.00048
Zinc, Dissolved	0.007	mg/L	0.005	E200.8	07/09/14 13:10	JRH	0.0014
Zinc	0.007	mg/L	0.005	E200.8	07/09/14 13:08	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 20:34	WAT	0.50	
Acetone	1.32	ug/L	50	SW8260B	07/07/14 20:34	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 20:34	WAT	0.57	
2-Butanone (MEK)	0.65	ug/L	25	SW8260B	07/07/14 20:34	WAT	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 20:34	WAT	1.3	
Chloroform	0.50	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.21	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.02 (continued)

Sample Tag: MW 108 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 20:34	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 20:34	WAT	0.29	
Carbon tetrachloride	2	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 20:34	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:34	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:34	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.03
 Sample Tag: MW 109 S
 Collected Date/Time: 06/26/2014 11:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:17	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 19:14	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:17	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 19:14	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:17	JRH	0.00019
Copper	0.005	mg/L	0.004	E200.8	07/08/14 19:14	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 19:17	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 19:14	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:17	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 19:14	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 13:15	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 13:12	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 20:56	WAT	0.50
Acetone	1.47	ug/L	50	SW8260B	07/07/14 20:56	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 20:56	WAT	0.57
2-Butanone (MEK)	0.29	ug/L	25	SW8260B	07/07/14 20:56	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.26
Vinyl chloride	10	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.33
1,1-Dichloroethene	4	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.29
trans-1,2-Dichloroethene	0.70	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20
1,1-Dichloroethane	3	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20
cis-1,2-Dichloroethene	70	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 20:56	WAT	1.3
Chloroform	0.37	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.03 (continued)

Sample Tag: MW 109 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.38	
1,1,1-Trichloroethane	0.50	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.28	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 20:56	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 20:56	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.16	
Trichloroethene	104	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 20:56	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 20:56	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 20:56	WAT	0.16	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.04
 Sample Tag: MW 113 S
 Collected Date/Time: 06/26/2014 12:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:23	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 19:20	JRH	0.00023
Chromium, Dissolved	0.152	mg/L	0.005	E200.8	07/08/14 19:23	JRH	0.00014
Chromium	0.170	mg/L	0.005	E200.8	07/08/14 19:20	JRH	0.00014
Copper, Dissolved	0.004	mg/L	0.004	E200.8	07/08/14 19:23	JRH	0.00019
Copper	0.006	mg/L	0.004	E200.8	07/08/14 19:20	JRH	0.00019
Lead, Dissolved	0.005	mg/L	0.003	E200.8	07/08/14 19:23	JRH	0.00020
Lead	0.005	mg/L	0.003	E200.8	07/08/14 19:20	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:23	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 19:20	JRH	0.00048
Zinc, Dissolved	0.013	mg/L	0.005	E200.8	07/09/14 13:19	JRH	0.0014
Zinc	0.013	mg/L	0.005	E200.8	07/09/14 13:17	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 21:17	WAT	0.50	
Acetone	1.32	ug/L	50	SW8260B	07/07/14 21:17	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.25	
Carbon disulfide	0.36	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.24	J
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 21:17	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 21:17	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.50	
Chloromethane	0.29	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.26	J
Vinyl chloride	2	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.33	
1,1-Dichloroethene	0.39	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.27	J
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.29	
trans-1,2-Dichloroethene	0.24	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	J
1,1-Dichloroethane	3	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
cis-1,2-Dichloroethene	59	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 21:17	WAT	1.3	
Chloroform	0.32	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.21	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.04 (continued)

Sample Tag: MW 113 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.38	
1,1,1-Trichloroethane	1	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 21:17	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 21:17	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.16	
Trichloroethene	69	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 21:17	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:17	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 21:17	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.05
 Sample Tag: MW 111 S
 Collected Date/Time: 06/26/2014 08:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:28	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 19:26	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:28	JRH	0.00014
Chromium	0.019	mg/L	0.005	E200.8	07/08/14 19:26	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:28	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 19:26	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 19:28	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 19:26	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:28	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 19:26	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 13:24	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 13:22	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 21:39	WAT	0.50	
Acetone	1.48	ug/L	50	SW8260B	07/07/14 21:39	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 21:39	WAT	0.57	
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 21:39	WAT	0.26	
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.50	
Chloromethane	0.29	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.26	J
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 21:39	WAT	1.3	
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.21	

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.05 (continued)

Sample Tag: MW 111 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 21:39	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 21:39	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.16	
Trichloroethene	2	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 21:39	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 21:39	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 21:39	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.06
 Sample Tag: MW 105 S
 Collected Date/Time: 06/25/2014 17:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	125ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:48	JRH	0.00023
Arsenic	0.004	mg/L	0.002	E200.8	07/08/14 19:45	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:48	JRH	0.00014
Chromium	3.49	mg/L	0.005	E200.8	07/08/14 19:45	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:48	JRH	0.00019
Copper	0.158	mg/L	0.004	E200.8	07/08/14 19:45	JRH	0.00019
Lead, Dissolved	0.022	mg/L	0.003	E200.8	07/08/14 19:48	JRH	0.00020
Lead	0.020	mg/L	0.003	E200.8	07/08/14 19:45	JRH	0.00020
Selenium, Dissolved	0.008	mg/L	0.005	E200.8	07/08/14 19:48	JRH	0.00048
Selenium	0.007	mg/L	0.005	E200.8	07/08/14 19:45	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 13:38	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 13:36	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 22:01	WAT	0.50
Acetone	1.86	ug/L	50	SW8260B	07/07/14 22:01	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 22:01	WAT	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 22:01	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 22:01	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.06 (continued)

Sample Tag: MW 105 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 22:01	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 22:01	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.28	
Tetrachloroethene	26	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 22:01	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:01	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:01	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.07
 Sample Tag: MW 110 S
 Collected Date/Time: 06/26/2014 13:00
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:54	JRH	0.00023
Arsenic	0.010	mg/L	0.002	E200.8	07/08/14 19:51	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:54	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 19:51	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:54	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 19:51	JRH	0.00019
Lead, Dissolved	0.015	mg/L	0.003	E200.8	07/08/14 19:54	JRH	0.00020
Lead	0.017	mg/L	0.003	E200.8	07/08/14 19:51	JRH	0.00020
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:54	JRH	0.00048
Selenium	Not detected	mg/L	0.005	E200.8	07/08/14 19:51	JRH	0.00048
Zinc, Dissolved	Not detected	mg/L	0.005	E200.8	07/09/14 13:43	JRH	0.0014
Zinc	Not detected	mg/L	0.005	E200.8	07/09/14 13:41	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 22:23	WAT	0.50
Acetone	1.29	ug/L	50	SW8260B	07/07/14 22:23	WAT	0.56
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.25
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.24
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.19
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 22:23	WAT	0.57
2-Butanone (MEK)	Not detected	ug/L	25	SW8260B	07/07/14 22:23	WAT	0.26
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.50
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.26
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.31
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.32
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.34
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.33
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.27
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.29
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.26
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 22:23	WAT	1.3
Chloroform	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.21

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.07 (continued)

Sample Tag: MW 110 S

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 22:23	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 22:23	WAT	0.29	
Carbon tetrachloride	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 22:23	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:23	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:23	WAT	0.16	



Analytical Laboratory Report

Lab Sample ID: S61665.08
 Sample Tag: Duplicate
 Collected Date/Time: 06/26/2014 00:01
 Matrix: Groundwater
 COC Reference: 78149

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
3	40ml Glass	HCL	Yes	5.4	IR
1	250ml Plastic	None	Yes	5.4	IR
1	125ml Plastic	HNO3	Yes	5.4	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
Extraction / Prep.							
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
Metal Digestion	Completed			SW3015A	07/08/14 10:00	JRH	
pH check for VOCs	<2	STD Units		N/A	07/08/14 10:35	LBR	

Metals

Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	07/08/14 19:59	JRH	0.00023
Arsenic	Not detected	mg/L	0.002	E200.8	07/08/14 19:56	JRH	0.00023
Chromium, Dissolved	Not detected	mg/L	0.005	E200.8	07/08/14 19:59	JRH	0.00014
Chromium	Not detected	mg/L	0.005	E200.8	07/08/14 19:56	JRH	0.00014
Copper, Dissolved	Not detected	mg/L	0.004	E200.8	07/08/14 19:59	JRH	0.00019
Copper	Not detected	mg/L	0.004	E200.8	07/08/14 19:56	JRH	0.00019
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	07/08/14 19:59	JRH	0.00020
Lead	Not detected	mg/L	0.003	E200.8	07/08/14 19:56	JRH	0.00020
Selenium, Dissolved	0.007	mg/L	0.005	E200.8	07/08/14 19:59	JRH	0.00048
Selenium	0.006	mg/L	0.005	E200.8	07/08/14 19:56	JRH	0.00048
Zinc, Dissolved	0.009	mg/L	0.005	E200.8	07/09/14 13:48	JRH	0.0014
Zinc	0.008	mg/L	0.005	E200.8	07/09/14 13:45	JRH	0.0014

Organics - Volatiles

Volatile Organics - DEQ List

Diethyl ether	Not detected	ug/L	10	SW8260B	07/07/14 22:45	WAT	0.50	
Acetone	1.46	ug/L	50	SW8260B	07/07/14 22:45	WAT	0.56	J
Methyl iodide	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.25	
Carbon disulfide	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.24	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.19	
Acrylonitrile	Not detected	ug/L	2	SW8260B	07/07/14 22:45	WAT	0.57	
2-Butanone (MEK)	4.62	ug/L	25	SW8260B	07/07/14 22:45	WAT	0.26	J
Dichlorodifluoromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.50	
Chloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.26	
Vinyl chloride	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.31	
Bromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.32	
Chloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.34	
Trichlorofluoromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.33	
1,1-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.27	
Methylene chloride	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.29	
trans-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
1,1-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
cis-1,2-Dichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.26	
Tetrahydrofuran	Not detected	ug/L	90	SW8260B	07/07/14 22:45	WAT	1.3	
Chloroform	0.38	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.21	J

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Lab Sample ID: S61665.08 (continued)

Sample Tag: Duplicate

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics - DEQ List (continued)								
Bromochloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.38	
1,1,1-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.28	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	SW8260B	07/07/14 22:45	WAT	0.14	
2-Hexanone	Not detected	ug/L	50	SW8260B	07/07/14 22:45	WAT	0.29	
Carbon tetrachloride	1	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
Benzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
1,2-Dichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.16	
Trichloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.23	
1,2-Dichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
Bromodichloromethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.23	
Dibromomethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.20	
cis-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.19	
Toluene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.25	
trans-1,3-Dichloropropene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.25	
1,1,2-Trichloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.28	
Tetrachloroethene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
trans-1,4-Dichloro-2-butene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.20	
Dibromochloromethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.24	
1,2-Dibromoethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.30	
Chlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.17	
1,1,1,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.24	
Ethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.26	
p,m-Xylene	Not detected	ug/L	2	SW8260B	07/07/14 22:45	WAT	0.41	
o-Xylene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.25	
Styrene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.18	
Isopropylbenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.25	
Bromoform	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.22	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.18	
1,2,3-Trichloropropane	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.33	
n-Propylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.23	
Bromobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.27	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.26	
tert-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.18	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.22	
sec-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.25	
p-Isopropyltoluene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.21	
1,3-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.24	
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.23	
1,2-Dichlorobenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.28	
1,2,3-Trimethylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.061	
n-Butylbenzene	Not detected	ug/L	1	SW8260B	07/07/14 22:45	WAT	0.22	
Hexachloroethane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.21	
1,2-Dibromo-3-chloropropane	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.47	
1,2,4-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.19	
1,2,3-Trichlorobenzene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.20	
Naphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.21	
2-Methylnaphthalene	Not detected	ug/L	5	SW8260B	07/07/14 22:45	WAT	0.16	



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C.O.C. PAGE # 1 OF 1

78149

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME
 COMPANY
 ADDRESS
 CITY STATE ZIP CODE
 PHONE NO. FAX NO. P.O. NO.
 E-MAIL ADDRESS QUOTE NO.

CONTACT NAME *JESSE ANDERSON* SAME
 COMPANY *APPLIED ECO SYSTEMS*
 ADDRESS
 CITY *BURTON* STATE *MI* ZIP CODE *48529*
 PHONE NO. *810 715 2525* E-MAIL ADDRESS *JAnderson@AppliedEcoSysm.com*

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME *RACOR FUNT WEST* SAMPLER(S) - PLEASE PRINT/SIGN NAME *JESSE ANDERSON J.W. Anderson*
 TURNAROUND TIME REQUIRED 1 DAY 2 DAYS 3 DAYS STANDARD OTHER
 DELIVERABLES REQUIRED STD LEVEL II LEVEL III LEVEL IV EDD OTHER

Certifications
 OHIO VAP Drinking Water
 DoD NPDES
 Project Locations
 Detroit New York
 Other
 Special Instructions

MATRIX GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
 CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR W=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	YEAR		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives								VOCs	METALS	TOTAL METALS				
	DATE	TIME				NONE	3 HCl	1 HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER								
<i>01665.01</i>	<i>6/26</i>	<i>9am</i>	<i>MW 103 S</i>	<i>GW</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>												
<i>.02</i>	<i>↓</i>	<i>10am</i>	<i>MW 108 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.03</i>	<i>↓</i>	<i>11am</i>	<i>MW 109 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.04</i>	<i>↓</i>	<i>12am</i>	<i>MW 113 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.05</i>	<i>↓</i>	<i>8am</i>	<i>MW 111 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.06</i>	<i>6/25</i>	<i>5pm</i>	<i>MW 105 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.07</i>	<i>6/26</i>	<i>1pm</i>	<i>MW 110 S</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>												
<i>.08</i>			<i>Duplicate</i>	<i>GW</i>	<i>5</i>															
			<i>TRIP BLANK coming UPS</i>	<i>L</i>	<i>3</i>															
			<i>FIELD BLANK on 6/27/14</i>	<i>L</i>	<i>3</i>															

** METALS present
 LEAD Zinc
 COPPER Chromium
 Selenium*

RELINQUISHED BY: *[Signature]* Sampler DATE *6/26/14* TIME *1345*
 RECEIVED BY: *[Signature]* DATE *6/26/14* TIME *1345*
 RELINQUISHED BY: DATE TIME
 RECEIVED BY: DATE TIME

RELINQUISHED BY: *[Signature]* DATE *6/26/14* TIME *1440*
 RECEIVED BY: *[Signature]* DATE *6/26/14* TIME *1440*
 SEAL NO. SEAL INTACT INITIALS NOTES: TEMP. ON ARRIVAL *54*
 YES NO
 SEAL NO. SEAL INTACT INITIALS
 YES NO

ATTACHMENT #4: SOIL ANALYTICAL TABLES

SOIL ANALYTICAL DATA (Metals and Detected VOCs)
RACER - Flint West #12990

Sample ID	SB124-4	SB124-10	SB124-21	SB125-4	SB125-13	SB125-19	SB126-4	SB126-11	SB126-15	SB127-4	SB127-8	SB127-15	SB127-20	SB128-3	SB128-7	SB128-10	SB129-4	SB129-8	SB129-18	SB130-4	SB130-10	SB130-18	SB131-4	SB131-10	SB131-18			
Date Collected	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/21/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14	4/22/14			
ANALYTE (ug/kg)	DW	GSI																										
Arsenic	5,800.00	5,800.00	D&G=B	1,130.00	1,100.00	1,830.00	570.00	1,440.00	1,410.00	1,300.00	1,250.00	1,180.00	410.00	1,630.00	2,060.00	1,780.00	500.00	1,550.00	1,150.00	2,790.00	1,740.00	1,460.00	3,580.00	1,700.00	1,980.00	1,630.00	1,300.00	2,080.00
Chromium	18,000.00	18,000.00	D&G=B	1,220.00	1,460.00	3,350.00	2,050.00	3,260.00	4,240.00	1,220.00	2,920.00	2,870.00	1,980.00	2,560.00	4,540.00	610.00	1,460.00	2,860.00	5,890.00	2,550.00	4,080.00	4,730.00	3,090.00	1,150.00	2,770.00	1,640.00	2,800.00	2,620.00
Copper	5,800,000.00	120,000.00	GX	1,700.00	2,300.00	8,200.00	7,400.00	6,100.00	11,400.00	3,400.00	3,100.00	5,600.00	1,600.00	3,000.00	5,800.00	1,200.00	3,900.00	5,600.00	5,300.00	13,000.00	3,600.00	7,200.00	17,700.00	1,700.00	9,800.00	8,500.00	3,100.00	7,900.00
Lead	700,000.00	5,000,000.00	GX	2,510.00	3,120.00	7,590.00	13,800.00	5,100.00	8,590.00	2,280.00	3,790.00	5,470.00	4,710.00	5,740.00	7,330.00	950.00	6,250.00	11,400.00	6,950.00	104,000.00	6,100.00	7,420.00	123,000.00	2,110.00	6,510.00	36,400.00	4,740.00	6,020.00
Selenium	4,000.00	410.00	G=B			210.00						210.00							130.00			150.00			140.00			
Zinc	2,400,000.00	2,600,000.00	G=B	4,600.00	5,100.00	19,000.00	11,400.00	12,200.00	20,800.00	5,900.00	8,600.00	14,700.00	3,700.00	10,300.00	20,300.00	2,400.00	6,000.00	13,200.00	9,900.00	21,300.00	13,100.00	19,200.00	51,800.00	5,800.00	18,000.00	16,800.00	13,600.00	18,600.00

ANALYTE (ug/kg)	DW	GSI																										
2 Butanone (MEK)	260,000.00	44,000.00		45.00	71.00	56.00		165.00	79.00	82.00	150.00	75.00	46.00	66.00	148.00	126.00	44.00	123.00	127.00	40.00	53.00	82.00	69.00	68.00	70.00	79.00	65.00	164.00
Vinyl Chloride	40.00	260.00							23.00																73.00			90.00
1,1-Dichloroethene	140.00	2,600.00																								34.00		18.00
trans-1,2-Dichloroethene	2,000.00	30,000.00																								100.00		62.00
1,1-Dichloroethane	18,000.00	15,000.00																								69.00		35.00
cis-1,2-Dichloroethane	1,400.00	12,000.00			58.00				350.00													300.00			6,380.00			2,820.00
Tetrahydrofuran	1,900.00	220,000.00		170.00	190.00	190.00	150.00	180.00	180.00	140.00	190.00	210.00	190.00	190.00	170.00	190.00	150.00	150.00	140.00	150.00	180.00	180.00	180.00	170.00	160.00	150.00	180.00	160.00
Chloroform	1,600.00	7,000.00							16.00																			
1,1,1-Trichloroethane	4,000.00	1,800.00							11.00																			
Benzene	100.00	4,000.00																								36.00		
Trichloroethene	100.00	4,000.00			1,420.00				3,650.00													6,170.00			6,080.00	28.00		12,160.00
Toluene	16,000.00	5,400.00		11.00																13.00	19.00	31.00				45.00		
Ethylbenzene	1,500.00	360.00																								15.00		
Total Xylenes	5,600.00	820.00																		21.00						92.00		91.00
Isopropylbenzene	91,000.00	3,200.00																		16.00						13.00		
n-Propylbenzene	1,600.00	NC																								16.00		
1,2-Dichlorobenzene	14,000.00	280.00																		21.00								
1,2,4-Trimethylbenzene	2,100.00	570.00																								14.00		24.00
1,2,3-Trimethylbenzene	NC	NC																								13.40		11.80
Naphthalene	35,000.00	730.00		10.80			14.40	17.00		13.70			12.90		14.30		345.70	46.90	39.50	12.50						51.50		100.30
2-Methylnaphthalene	57,000.00	4,200.00		10.20			14.00	39.00		13.00	19.00				30.00		10.00	820.00	46.00	43.00					54.10		71.80	

- NOTES:
- Blank cells indicate no detectable concentrations
 - X Exceeds DW criteria
 - X Exceeds GSI criteria
 - X Exceeds both DW and GSI criteria
 - X Compound also found in associated method blank, suggesting a laboratory artifact.
 - NC Insufficient data to develop criterion/no criterion
 - GX Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

SOIL ANALYTICAL DATA (Detected VOCs)
RACER - Flint West #12990

	Sample ID		SB132-12	SB132-15	SB133-17	SB133-19	SB133-20
	Date Collected		7/10/14	7/10/14	7/10/14	7/10/14	7/10/14
ANALYTE (ug/kg)	DW	GSI					
2 Butanone (MEK)	260,000.00	44,000.00					
Vinyl Chloride	40.00	260.00	180	89	46		
1,1-Dichloroethene	140.00	2,600.00					
trans-1,2-Dichloroethene	2,000.00	30,000.00			18.00		
1,1-Dichloroethane	18,000.00	15,000.00			13.00		
cis-1,2-Dichloroethene	1,400.00	12,000.00	2200.00	1200.00	1990.00	530.00	270.00
Tetrahydrofuran	1,900.00	220,000.00	1500.00	300.00	150.00	160.00	117.00
Chloroform	1,600.00	7,000.00					
1,1,1-Trichloroethane	4,000.00	1,800.00			24.90	35.20	17.80
Benzene	100.00	4,000.00					
Trichloroethene	100.00	4,000.00	29500	13700	11680	10860	7520
Tetrachloroethene	100.00	1,200.00				17	
Toluene	16,000.00	5,400.00					
Ethylbenzene	1,500.00	360.00					
Total Xylenes	5,600.00	820.00					
Isopropylbenzene	91,000.00	3,200.00					
n-Propylbenzene	1,600.00	NC					
1,2 -Dichlorobenzene	14,000.00	280.00					
1,2,4-Trimethylbenzene	2,100.00	570.00					
1,2,3-Trimethylbenzene	NC	NC					
Naphthalene	35,000.00	730.00					
2-Methylnaphthalene	57,000.00	4,200.00			15.00	12.00	9.20

NOTES:

	Blank cells indicate no detectable concentrations
X	Exceeds DW criteria
X	Exceeds GSI criteria
X	Exceeds both DW and GSI criteria
X	Compound also found in associated method blank, suggesting a laboratory artifact.
NC	Insufficient data to develop criterion/no criterion
GX	Groundwater to Surface Water Interface Criteria - calculated based on 257ppm total hardness in the Flint River

ATTACHMENT #5: SOIL ANALYTICAL LABORATORY REPORT



Analytical Laboratory Report

Revised Report

Report ID: S61843.01(02)
Generated on 07/30/2014
Replaces report S61843.01(01) generated on 07/18/2014

Report to

Attention: Jesse Anderson
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526
Email: janderson@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:

Kevin George (kgeorge@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S61843.01-S61843.07
Project: RACER Flint West
Collected Date: 07/10/2014
Submitted Date/Time: 07/11/2014 14:30
Sampled by: Jesse Anderson
P.O. #: PO219269

Analytical results updated to include J-flags.

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Revised Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S61843.01	SB 132 11.5-12'	Soil	07/10/2014 13:00
S61843.02	SB 132 14.5-15'	Soil	07/10/2014 14:00
S61843.03	SB 133 16.5-17'	Soil	07/10/2014 15:00
S61843.04	SB 133 18-19'	Soil	07/10/2014 15:30
S61843.05	SB 133 19.5-20'	Soil	07/10/2014 16:00
S61843.06	Trip Blank	Methanol	07/10/2014 00:01
S61843.07	Field Blank	Methanol	07/10/2014 00:01



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.01
 Sample Tag: SB 132 11.5-12'
 Collected Date/Time: 07/10/2014 13:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
----------	---------	-------	----	--------	---------------	-------------	-------

Inorganics

Total Solids	77	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
--------------	----	---	---	--------------	----------------	-------	--

Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH 250	Y
Acetone	Not detected	ug/kg	20,000	5035/8260B	07/17/14 16:22	JGH 5400	Y
Methyl iodide	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 86	Y
Carbon disulfide	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH 110	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH 150	Y
Acrylonitrile	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 600	Y
2-Butanone (MEK)	Not detected	ug/kg	12,000	5035/8260B	07/17/14 16:22	JGH 400	Y
Dichlorodifluoromethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH 180	Y
Chloromethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH 160	Y
Vinyl chloride	180	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 160	JY
Bromomethane	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH 170	Y
Chloroethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH 170	Y
Trichlorofluoromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 130	Y
1,1-Dichloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 170	Y
Methylene chloride	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 170	Y
trans-1,2-Dichloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 140	Y
1,1-Dichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 140	Y
cis-1,2-Dichloroethene	2,200	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 130	Y
Tetrahydrofuran	1,500	ug/kg	20,000	5035/8260B	07/17/14 16:22	JGH 1300	JBY
Chloroform	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 120	Y
Bromochloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 170	Y
1,1,1-Trichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 100	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	40,000	5035/8260B	07/17/14 16:22	JGH 350	Y
2-Hexanone	Not detected	ug/kg	40,000	5035/8260B	07/17/14 16:22	JGH 200	Y
Carbon tetrachloride	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 120	Y
Benzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 150	Y
1,2-Dichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 180	Y
Trichloroethene	29,500	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 150	Y
1,2-Dichloropropane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 100	Y
Bromodichloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 120	Y
Dibromomethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH 120	Y
cis-1,3-Dichloropropene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 120	Y
Toluene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH 140	Y
trans-1,3-Dichloropropene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 100	Y
1,1,2-Trichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH 150	Y

Y-Elevated reporting limit due to high target concentration

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.01 (continued)

Sample Tag: SB 132 11.5-12'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Tetrachloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	140	Y
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	300	Y
Dibromochloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	97	Y
1,2-Dibromoethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:22	JGH	100	Y
Chlorobenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	130	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	98	Y
Ethylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
p,m-Xylene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	290	Y
o-Xylene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
Styrene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
Isopropylbenzene	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	140	Y
Bromoform	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	120	Y
1,2,3-Trichloropropane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	280	Y
n-Propylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
Bromobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	150	Y
1,3,5-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
tert-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,4-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
sec-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	160	Y
p-Isopropyltoluene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,3-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,4-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
1,2-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,3-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	110	Y
n-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	65	Y
Hexachloroethane	Not detected	ug/kg	5,000	5035/8260B	07/17/14 16:22	JGH	100	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,4-Trichlorobenzene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	110	Y
1,2,3-Trichlorobenzene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	120	Y
Naphthalene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	110	Y
2-Methylnaphthalene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	130	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.02
 Sample Tag: SB 132 14.5-15'
 Collected Date/Time: 07/10/2014 14:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
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Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 46	Y
Acetone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:02	JGH 990	Y
Methyl iodide	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 16	Y
Carbon disulfide	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 20	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 27	Y
Acrylonitrile	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 110	Y
2-Butanone (MEK)	Not detected	ug/kg	2,200	5035/8260B	07/17/14 16:02	JGH 72	Y
Dichlorodifluoromethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 33	Y
Chloromethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 29	Y
Vinyl chloride	89	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 29	JY
Bromomethane	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 31	Y
Chloroethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 31	Y
Trichlorofluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 23	Y
1,1-Dichloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 31	Y
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 31	Y
trans-1,2-Dichloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 25	Y
1,1-Dichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 25	Y
cis-1,2-Dichloroethene	1,200	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 23	Y
Tetrahydrofuran	300	ug/kg	3,000	5035/8260B	07/17/14 16:02	JGH 240	JBY
Chloroform	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 23	Y
Bromochloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 31	Y
1,1,1-Trichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 19	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	7,000	5035/8260B	07/17/14 16:02	JGH 63	Y
2-Hexanone	Not detected	ug/kg	7,000	5035/8260B	07/17/14 16:02	JGH 37	Y
Carbon tetrachloride	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 21	Y
Benzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 27	Y
1,2-Dichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 33	Y
Trichloroethene	13,700	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 27	Y
1,2-Dichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 19	Y
Bromodichloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 22	Y
Dibromomethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 22	Y
cis-1,3-Dichloropropene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 21	Y
Toluene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 25	Y
trans-1,3-Dichloropropene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 19	Y
1,1,2-Trichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 27	Y

Y-Elevated reporting limit due to high target concentration

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.02 (continued)

Sample Tag: SB 132 14.5-15'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Tetrachloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	26	Y
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	54	Y
Dibromochloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	18	Y
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/17/14 16:02	JGH	18	Y
Chlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	24	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	18	Y
Ethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	28	Y
p,m-Xylene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	53	Y
o-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	27	Y
Styrene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	28	Y
Isopropylbenzene	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH	25	Y
Bromoform	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	21	Y
1,2,3-Trichloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	51	Y
n-Propylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	26	Y
Bromobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	28	Y
1,3,5-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	26	Y
tert-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,4-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
sec-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	30	Y
p-Isopropyltoluene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,3-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,4-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	25	Y
1,2-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,3-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	19	Y
n-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	12	Y
Hexachloroethane	Not detected	ug/kg	900	5035/8260B	07/17/14 16:02	JGH	19	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,4-Trichlorobenzene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	19	Y
1,2,3-Trichlorobenzene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	22	Y
Naphthalene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	20	Y
2-Methylnaphthalene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	23	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.03
 Sample Tag: SB 133 16.5-17'
 Collected Date/Time: 07/10/2014 15:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
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Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH 23	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 14:22	JGH 490	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 7.8	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH 10	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH 13	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 54	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/17/14 14:22	JGH 36	
Dichlorodifluoromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH 16	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH 14	
Vinyl chloride	46	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 15	J
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH 15	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH 16	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 11	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 16	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 16	
trans-1,2-Dichloroethene	18	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 12	J
1,1-Dichloroethane	13	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 12	J
cis-1,2-Dichloroethene	1,990	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 12	
Tetrahydrofuran	150	ug/kg	1,000	5035/8260B	07/17/14 14:22	JGH 120	JB
Chloroform	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 11	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 16	
1,1,1-Trichloroethane	24.9	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 9.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:22	JGH 32	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:22	JGH 18	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 11	
Benzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 13	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 16	
Trichloroethene	11,680	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 14	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 9.4	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 11	
Dibromomethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH 11	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 11	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH 12	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 9.3	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 13	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH 13	

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.03 (continued)

Sample Tag: SB 133 16.5-17'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	27	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	8.8	
1,2-Dibromoethane	Not detected	ug/kg	30	5035/8260B	07/17/14 14:22	JGH	9.1	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	8.9	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	14	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	26	
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	13	
Styrene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	14	
Isopropylbenzene	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	13	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	11	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	26	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	13	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	13	
tert-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	15	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
sec-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	15	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	15	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	15	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	12	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	16	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	9.7	
n-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	5.9	
Hexachloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	9.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	16	
1,2,4-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	9.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	11	
Naphthalene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	9.8	
2-Methylnaphthalene	15	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	11	JB

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.04
 Sample Tag: SB 133 18-19'
 Collected Date/Time: 07/10/2014 15:30
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
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Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 23	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 14:42	JGH 490	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 7.8	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 10	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 13	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 54	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/17/14 14:42	JGH 36	
Dichlorodifluoromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 16	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 15	
Vinyl chloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 15	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 15	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 16	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 11	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 16	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 16	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
cis-1,2-Dichloroethene	530	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
Tetrahydrofuran	160	ug/kg	1,000	5035/8260B	07/17/14 14:42	JGH 120	JB
Chloroform	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 16	
1,1,1-Trichloroethane	35.2	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:42	JGH 32	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:42	JGH 18	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Benzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 16	
Trichloroethene	10,860	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 14	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 11	
Dibromomethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 11	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 12	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.3	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	
Tetrachloroethene	17	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	J
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 27	

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.04 (continued)

Sample Tag: SB 133 18-19'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	8.9	
1,2-Dibromoethane	Not detected	ug/kg	30	5035/8260B	07/17/14 14:42	JGH	9.1	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	8.9	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	14	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	27	
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	13	
Styrene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	14	
Isopropylbenzene	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	13	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	14	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	11	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	26	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	13	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	14	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	13	
tert-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	15	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
sec-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	15	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	12	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	16	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	9.7	
n-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	5.9	
Hexachloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	9.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	16	
1,2,4-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	9.7	
1,2,3-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	11	
Naphthalene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	9.8	
2-Methylnaphthalene	12	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	11	JB

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.05
 Sample Tag: SB 133 19.5-20'
 Collected Date/Time: 07/10/2014 16:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Total Solids	92	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
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Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 18	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:02	JGH 390	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 6.2	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 7.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 11	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 43	
2-Butanone (MEK)	Not detected	ug/kg	860	5035/8260B	07/17/14 15:02	JGH 28	
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 13	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 11	
Vinyl chloride	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 12	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 12	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 9.0	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 12	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 12	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.7	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.8	
cis-1,2-Dichloroethene	270	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.1	
Tetrahydrofuran	117	ug/kg	1,000	5035/8260B	07/17/14 15:02	JGH 95	JB
Chloroform	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.9	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 12	
1,1,1-Trichloroethane	17.8	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:02	JGH 25	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:02	JGH 14	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.3	
Benzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 13	
Trichloroethene	7,520	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.4	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 8.5	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 8.9	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 9.7	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.3	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 10	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 21	

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.05 (continued)

Sample Tag: SB 133 19.5-20'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.0	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:02	JGH	7.1	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	9.3	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.0	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	11	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	21	
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	10	
Styrene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	11	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	9.8	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	8.3	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	20	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	10	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	10	
tert-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	12	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
sec-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	12	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	9.8	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.6	
n-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	4.7	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	7.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	12	
1,2,4-Trichlorobenzene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	7.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	8.7	
Naphthalene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	7.7	
2-Methylnaphthalene	9.2	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	9.0	JB

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.06
 Sample Tag: Trip Blank
 Collected Date/Time: 07/10/2014 00:01
 Matrix: Methanol
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	MeOH	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	16	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:21	JGH	340	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	5.4	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	6.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	9.2	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	37	
2-Butanone (MEK)	95	ug/kg	750	5035/8260B	07/17/14 15:21	JGH	25	J
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	9.9	
Vinyl chloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10.0	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	11	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	7.8	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	11	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.5	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.9	
Tetrahydrofuran	108	ug/kg	1,000	5035/8260B	07/17/14 15:21	JGH	83	JB
Chloroform	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.8	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.4	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:21	JGH	22	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:21	JGH	13	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.3	
Benzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	11	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.4	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	7.4	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	7.7	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.4	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.4	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.2	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.0	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	18	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.1	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:21	JGH	6.2	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.1	

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.06 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.1	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.6	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	18	
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.1	
Styrene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.6	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	8.6	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.9	
1,1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.2	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	18	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.8	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.5	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.8	
tert-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.9	
sec-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	10	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.7	
n-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	4.1	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	6.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	6.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	7.6	
Naphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	6.7	
2-Methylnaphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	7.8	



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.07
 Sample Tag: Field Blank
 Collected Date/Time: 07/10/2014 00:01
 Matrix: Methanol
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	MeOH	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	16	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:42	JGH	340	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	5.4	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	6.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	9.2	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	37	
2-Butanone (MEK)	90	ug/kg	750	5035/8260B	07/17/14 15:42	JGH	25	J
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	9.9	
Vinyl chloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10.0	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	11	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	7.8	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	11	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.5	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.9	
Tetrahydrofuran	111	ug/kg	1,000	5035/8260B	07/17/14 15:42	JGH	83	JB
Chloroform	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.8	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.4	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:42	JGH	22	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:42	JGH	13	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.3	
Benzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	11	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.4	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	7.4	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	7.7	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.4	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.4	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.2	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.0	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	18	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.1	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:42	JGH	6.2	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.1	

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Revised Report

Lab Sample ID: S61843.07 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.1	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.6	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	18	
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.1	
Styrene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.6	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	8.6	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.9	
1,1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.2	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	18	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.8	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.5	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.8	
tert-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.9	
sec-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	10	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.7	
n-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	4.1	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	6.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	6.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	7.6	
Naphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	6.7	
2-Methylnaphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	7.8	



Analytical Laboratory Report

Supplemental Report

Report ID: S61843.01(03)
Generated on 08/20/2014
Replaces report S61843.01(02) generated on 07/30/2014

Report to

Attention: Jesse Anderson
Applied Ecosystems
G4300 S. Saginaw St.
Burton, MI 48529

Phone: 248-688-2475 FAX: 810-715-2526
Email: janderson@appliedecosystems.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
Kevin George (kgeorge@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S61843.01-S61843.07
Project: RACER Flint West
Collected Date: 07/10/2014
Submitted Date/Time: 07/11/2014 14:30
Sampled by: Jesse Anderson
P.O. #: PO219269

Additional analyses added per client request.

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc..

Laboratory Certifications:

Michigan DNRE (#9956), DOD/ISO 17025 (#69699), WBENC (#2005110032), Ohio EPA (#CL0002)
IN Drinking Water (#C-MI-07), NELAC NY (#11814), NCDENR (#680), NC Drinking Water (#26702)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Supplemental Report

Sample Summary (7 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S61843.01	SB 132 11.5-12'	Soil	07/10/2014 13:00
S61843.02	SB 132 14.5-15'	Soil	07/10/2014 14:00
S61843.03	SB 133 16.5-17'	Soil	07/10/2014 15:00
S61843.04	SB 133 18-19'	Soil	07/10/2014 15:30
S61843.05	SB 133 19.5-20'	Soil	07/10/2014 16:00
S61843.06	Trip Blank	Methanol	07/10/2014 00:01
S61843.07	Field Blank	Methanol	07/10/2014 00:01



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.01
Sample Tag: SB 132 11.5-12'
Collected Date/Time: 07/10/2014 13:00
Matrix: Soil
COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Acid Rain Zero Headspace Extract	Completed			SW1312	08/05/14 17:50	WAR	F
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Inorganics

Total Solids	77	%	1	Std M 2540 B	07/11/14 18:00	ASB	1
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Organics - Volatiles

SPLP Volatiles

Benzene	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.20	G
Carbon tetrachloride	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.20	G
Chlorobenzene	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.17	G
Chloroform	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.21	G
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.23	G
1,2-Dichloroethane	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.16	G
1,1-Dichloroethene	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.27	G
2-Butanone (MEK)	Not detected	ug/L	10	SW8260C	08/06/14 19:13	JGH	0.26	G
Tetrachloroethene	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.20	G
Trichloroethene	22	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.23	G
Vinyl chloride	Not detected	ug/L	1	SW8260C	08/06/14 19:13	JGH	0.31	G

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH	250	Y
Acetone	Not detected	ug/kg	20,000	5035/8260B	07/17/14 16:22	JGH	5400	Y
Methyl iodide	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	86	Y
Carbon disulfide	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	110	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH	150	Y
Acrylonitrile	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	600	Y
2-Butanone (MEK)	Not detected	ug/kg	12,000	5035/8260B	07/17/14 16:22	JGH	400	Y
Dichlorodifluoromethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	180	Y
Chloromethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	160	Y
Vinyl chloride	180	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	160	JY
Bromomethane	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:22	JGH	170	Y
Chloroethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	170	Y
Trichlorofluoromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	130	Y
1,1-Dichloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	170	Y
Methylene chloride	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	170	Y
trans-1,2-Dichloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	140	Y
1,1-Dichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	140	Y
cis-1,2-Dichloroethene	2,200	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	130	Y

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time

Y-Elevated reporting limit due to high target concentration

J-Estimated value less than reporting limit, but greater than MDL



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.01 (continued)

Sample Tag: SB 132 11.5-12'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Tetrahydrofuran	1,500	ug/kg	20,000	5035/8260B	07/17/14 16:22	JGH	1300	JB Y
Chloroform	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	120	Y
Bromochloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	170	Y
1,1,1-Trichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	100	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	40,000	5035/8260B	07/17/14 16:22	JGH	350	Y
2-Hexanone	Not detected	ug/kg	40,000	5035/8260B	07/17/14 16:22	JGH	200	Y
Carbon tetrachloride	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	120	Y
Benzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
1,2-Dichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	180	Y
Trichloroethene	29,500	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
1,2-Dichloropropane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	100	Y
Bromodichloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	120	Y
Dibromomethane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	120	Y
cis-1,3-Dichloropropene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	120	Y
Toluene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
trans-1,3-Dichloropropene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	100	Y
1,1,2-Trichloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
Tetrachloroethene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	140	Y
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	300	Y
Dibromochloromethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	97	Y
1,2-Dibromoethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:22	JGH	100	Y
Chlorobenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	130	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	98	Y
Ethylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
p,m-Xylene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	290	Y
o-Xylene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
Styrene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	150	Y
Isopropylbenzene	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	140	Y
Bromoform	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	120	Y
1,2,3-Trichloropropane	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	280	Y
n-Propylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
Bromobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	150	Y
1,3,5-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
tert-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,4-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
sec-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	160	Y
p-Isopropyltoluene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,3-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	160	Y
1,4-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	140	Y
1,2-Dichlorobenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,3-Trimethylbenzene	Not detected	ug/kg	2,000	5035/8260B	07/17/14 16:22	JGH	110	Y
n-Butylbenzene	Not detected	ug/kg	800	5035/8260B	07/17/14 16:22	JGH	65	Y
Hexachloroethane	Not detected	ug/kg	5,000	5035/8260B	07/17/14 16:22	JGH	100	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	4,000	5035/8260B	07/17/14 16:22	JGH	170	Y
1,2,4-Trichlorobenzene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	110	Y
1,2,3-Trichlorobenzene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	120	Y
Naphthalene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	110	Y

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank Y-Elevated reporting limit due to high



Analytical Laboratory Report

Supplemental Report

target concentration



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.01 (continued)

Sample Tag: SB 132 11.5-12'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
2-Methylnaphthalene	Not detected	ug/kg	5,300	5035/8260B	07/17/14 16:22	JGH	130	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.02
 Sample Tag: SB 132 14.5-15'
 Collected Date/Time: 07/10/2014 14:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Density	2.43	g/cc		SM2710F	08/20/14 16:07	WAR	
Fractional Organic Carbon	0.25	%	0.05	Walkley Black	08/01/14 10:10	JDP 0.01	
Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	

Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 46	Y
Acetone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 16:02	JGH 990	Y
Methyl iodide	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 16	Y
Carbon disulfide	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 20	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 27	Y
Acrylonitrile	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 110	Y
2-Butanone (MEK)	Not detected	ug/kg	2,200	5035/8260B	07/17/14 16:02	JGH 72	Y
Dichlorodifluoromethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 33	Y
Chloromethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 29	Y
Vinyl chloride	89	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 29	JY
Bromomethane	Not detected	ug/kg	600	5035/8260B	07/17/14 16:02	JGH 31	Y
Chloroethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 31	Y
Trichlorofluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 23	Y
1,1-Dichloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 31	Y
Methylene chloride	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 31	Y
trans-1,2-Dichloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 25	Y
1,1-Dichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 25	Y
cis-1,2-Dichloroethene	1,200	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 23	Y
Tetrahydrofuran	300	ug/kg	3,000	5035/8260B	07/17/14 16:02	JGH 240	JBY
Chloroform	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 23	Y
Bromochloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 31	Y
1,1,1-Trichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 19	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	7,000	5035/8260B	07/17/14 16:02	JGH 63	Y
2-Hexanone	Not detected	ug/kg	7,000	5035/8260B	07/17/14 16:02	JGH 37	Y
Carbon tetrachloride	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 21	Y
Benzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 27	Y
1,2-Dichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 33	Y
Trichloroethene	13,700	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 27	Y
1,2-Dichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 19	Y
Bromodichloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 22	Y
Dibromomethane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH 22	Y
cis-1,3-Dichloropropene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH 21	Y
Toluene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH 25	Y

Y-Elevated reporting limit due to high target concentration

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.02 (continued)

Sample Tag: SB 132 14.5-15'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
trans-1,3-Dichloropropene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	19	Y
1,1,2-Trichloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	27	Y
Tetrachloroethene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	26	Y
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	54	Y
Dibromochloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	18	Y
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	07/17/14 16:02	JGH	18	Y
Chlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	24	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	18	Y
Ethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	28	Y
p,m-Xylene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	53	Y
o-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	27	Y
Styrene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	28	Y
Isopropylbenzene	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH	25	Y
Bromoform	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	21	Y
1,2,3-Trichloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	51	Y
n-Propylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	26	Y
Bromobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	28	Y
1,3,5-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	26	Y
tert-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,4-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
sec-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	30	Y
p-Isopropyltoluene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,3-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	29	Y
1,4-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	25	Y
1,2-Dichlorobenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,3-Trimethylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 16:02	JGH	19	Y
n-Butylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 16:02	JGH	12	Y
Hexachloroethane	Not detected	ug/kg	900	5035/8260B	07/17/14 16:02	JGH	19	Y
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	700	5035/8260B	07/17/14 16:02	JGH	31	Y
1,2,4-Trichlorobenzene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	19	Y
1,2,3-Trichlorobenzene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	22	Y
Naphthalene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	20	Y
2-Methylnaphthalene	Not detected	ug/kg	960	5035/8260B	07/17/14 16:02	JGH	23	Y

Y-Elevated reporting limit due to high target concentration



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.03
 Sample Tag: SB 133 16.5-17'
 Collected Date/Time: 07/10/2014 15:00
 Matrix: Soil
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Extraction / Prep.

Acid Rain Zero Headspace Extract	Completed			SW1312	08/05/14 17:50	WAR	F
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Inorganics

Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB	1
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Organics - Volatiles

SPLP Volatiles

Benzene	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.20	G
Carbon tetrachloride	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.20	G
Chlorobenzene	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.17	G
Chloroform	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.21	G
1,4-Dichlorobenzene	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.23	G
1,2-Dichloroethane	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.16	G
1,1-Dichloroethene	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.27	G
2-Butanone (MEK)	Not detected	ug/L	10	SW8260C	08/06/14 19:35	JGH	0.26	G
Tetrachloroethene	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.20	G
Trichloroethene	31	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.23	G
Vinyl chloride	Not detected	ug/L	1	SW8260C	08/06/14 19:35	JGH	0.31	G

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH	23	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 14:22	JGH	490	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	7.8	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	10	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH	13	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	54	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/17/14 14:22	JGH	36	
Dichlorodifluoromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	16	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	14	
Vinyl chloride	46	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	15	J
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 14:22	JGH	15	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	16	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	11	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	16	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	16	
trans-1,2-Dichloroethene	18	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	12	J
1,1-Dichloroethane	13	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	12	J
cis-1,2-Dichloroethene	1,990	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	12	
Tetrahydrofuran	150	ug/kg	1,000	5035/8260B	07/17/14 14:22	JGH	120	JB

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.03 (continued)

Sample Tag: SB 133 16.5-17'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Chloroform	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	11	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	16	
1,1,1-Trichloroethane	24.9	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	9.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:22	JGH	32	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:22	JGH	18	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	11	
Benzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	13	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	16	
Trichloroethene	11,680	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	14	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	9.4	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	11	
Dibromomethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	11	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	11	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	12	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	9.3	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	13	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	13	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	27	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	8.8	
1,2-Dibromoethane	Not detected	ug/kg	30	5035/8260B	07/17/14 14:22	JGH	9.1	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	8.9	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	14	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	26	
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	13	
Styrene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	14	
Isopropylbenzene	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	13	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	11	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	26	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	13	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	13	
tert-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	15	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	14	
sec-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	15	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	15	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	15	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	12	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	16	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:22	JGH	9.7	
n-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:22	JGH	5.9	
Hexachloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	9.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:22	JGH	16	
1,2,4-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	9.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	11	
Naphthalene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	9.8	
2-Methylnaphthalene	15	ug/kg	480	5035/8260B	07/17/14 14:22	JGH	11	JB

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.04
Sample Tag: SB 133 18-19'
Collected Date/Time: 07/10/2014 15:30
Matrix: Soil
COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Total Solids	82	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	
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Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 23	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 14:42	JGH 490	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 7.8	
Carbon disulfide	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 10	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 13	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 54	
2-Butanone (MEK)	Not detected	ug/kg	1,100	5035/8260B	07/17/14 14:42	JGH 36	
Dichlorodifluoromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 16	
Chloromethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 15	
Vinyl chloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 15	
Bromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 14:42	JGH 15	
Chloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 16	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 11	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 16	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 16	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
cis-1,2-Dichloroethene	530	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 12	
Tetrahydrofuran	160	ug/kg	1,000	5035/8260B	07/17/14 14:42	JGH 120	JB
Chloroform	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 16	
1,1,1-Trichloroethane	35.2	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:42	JGH 32	
2-Hexanone	Not detected	ug/kg	4,000	5035/8260B	07/17/14 14:42	JGH 18	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Benzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 16	
Trichloroethene	10,860	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 14	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 11	
Dibromomethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH 11	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 11	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH 12	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 9.3	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	
Tetrachloroethene	17	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 13	J
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH 27	

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.04 (continued)

Sample Tag: SB 133 18-19'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	8.9	
1,2-Dibromoethane	Not detected	ug/kg	30	5035/8260B	07/17/14 14:42	JGH	9.1	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	12	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	8.9	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	14	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	27	
o-Xylene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	13	
Styrene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	14	
Isopropylbenzene	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	13	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	14	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	11	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	26	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	13	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	14	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	13	
tert-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	15	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
sec-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	15	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	15	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	12	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	16	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 14:42	JGH	9.7	
n-Butylbenzene	Not detected	ug/kg	70	5035/8260B	07/17/14 14:42	JGH	5.9	
Hexachloroethane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	9.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	400	5035/8260B	07/17/14 14:42	JGH	16	
1,2,4-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	9.7	
1,2,3-Trichlorobenzene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	11	
Naphthalene	Not detected	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	9.8	
2-Methylnaphthalene	12	ug/kg	480	5035/8260B	07/17/14 14:42	JGH	11	JB

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.05
Sample Tag: SB 133 19.5-20'
Collected Date/Time: 07/10/2014 16:00
Matrix: Soil
COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	5.1	IR
1	8oz Glass	None	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst MDL	Flags
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Inorganics

Density	2.80	g/cc		SM2710F	08/20/14 16:15	WAR	
Fractional Organic Carbon	0.34	%	0.05	Walkley Black	08/01/14 10:20	JDP 0.01	
Total Solids	92	%	1	Std M 2540 B	07/11/14 18:00	ASB 1	

Organics - Volatiles

Volatile Organics 5035

Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 18	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:02	JGH 390	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 6.2	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 7.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 11	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 43	
2-Butanone (MEK)	Not detected	ug/kg	860	5035/8260B	07/17/14 15:02	JGH 28	
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 13	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 11	
Vinyl chloride	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:02	JGH 12	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 12	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 9.0	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 12	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 12	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.7	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.8	
cis-1,2-Dichloroethene	270	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 9.1	
Tetrahydrofuran	117	ug/kg	1,000	5035/8260B	07/17/14 15:02	JGH 95	JB
Chloroform	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.9	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 12	
1,1,1-Trichloroethane	17.8	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.4	J
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:02	JGH 25	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:02	JGH 14	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.3	
Benzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 13	
Trichloroethene	7,520	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.4	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 8.5	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH 8.9	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 8.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH 9.7	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 7.3	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH 11	

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.05 (continued)

Sample Tag: SB 133 19.5-20'

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	10	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	21	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.0	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:02	JGH	7.1	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	9.3	
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.0	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	11	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	21	
o-Xylene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	10	
Styrene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	11	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	9.8	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	8.3	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	20	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	10	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	10	
tert-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	12	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	11	
sec-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	12	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	9.8	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	12	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:02	JGH	7.6	
n-Butylbenzene	Not detected	ug/kg	60	5035/8260B	07/17/14 15:02	JGH	4.7	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	7.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:02	JGH	12	
1,2,4-Trichlorobenzene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	7.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	8.7	
Naphthalene	Not detected	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	7.7	
2-Methylnaphthalene	9.2	ug/kg	380	5035/8260B	07/17/14 15:02	JGH	9.0	JB

J-Estimated value less than reporting limit, but greater than MDL B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.06
Sample Tag: Trip Blank
Collected Date/Time: 07/10/2014 00:01
Matrix: Methanol
COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	MeOH	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	16	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:21	JGH	340	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	5.4	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	6.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	9.2	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	37	
2-Butanone (MEK)	95	ug/kg	750	5035/8260B	07/17/14 15:21	JGH	25	J
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	9.9	
Vinyl chloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10.0	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:21	JGH	11	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	7.8	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	11	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.5	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.9	
Tetrahydrofuran	108	ug/kg	1,000	5035/8260B	07/17/14 15:21	JGH	83	JB
Chloroform	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.8	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.4	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:21	JGH	22	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:21	JGH	13	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.3	
Benzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	11	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.4	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	7.4	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	7.7	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.4	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	6.4	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.2	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.0	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	18	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.1	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:21	JGH	6.2	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	8.1	

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.06 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.1	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.6	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	18	
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.1	
Styrene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	9.6	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	8.6	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.9	
1,1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	7.2	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	18	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.8	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.5	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.8	
tert-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	9.9	
sec-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	10	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	10	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	8.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	11	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:21	JGH	6.7	
n-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:21	JGH	4.1	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	6.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:21	JGH	11	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	6.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	7.6	
Naphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	6.7	
2-Methylnaphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:21	JGH	7.8	



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.07
 Sample Tag: Field Blank
 Collected Date/Time: 07/10/2014 00:01
 Matrix: Methanol
 COC Reference: 81595

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40ml Glass	MeOH	Yes	5.1	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles								
Volatile Organics 5035								
Diethyl ether	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	16	
Acetone	Not detected	ug/kg	1,000	5035/8260B	07/17/14 15:42	JGH	340	
Methyl iodide	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	5.4	
Carbon disulfide	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	6.9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	9.2	
Acrylonitrile	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	37	
2-Butanone (MEK)	90	ug/kg	750	5035/8260B	07/17/14 15:42	JGH	25	J
Dichlorodifluoromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
Chloromethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	9.9	
Vinyl chloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10.0	
Bromomethane	Not detected	ug/kg	200	5035/8260B	07/17/14 15:42	JGH	11	
Chloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
Trichlorofluoromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	7.8	
1,1-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	11	
Methylene chloride	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
trans-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.5	
1,1-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.5	
cis-1,2-Dichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.9	
Tetrahydrofuran	111	ug/kg	1,000	5035/8260B	07/17/14 15:42	JGH	83	JB
Chloroform	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.8	
Bromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
1,1,1-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.4	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:42	JGH	22	
2-Hexanone	Not detected	ug/kg	3,000	5035/8260B	07/17/14 15:42	JGH	13	
Carbon tetrachloride	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.3	
Benzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.2	
1,2-Dichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	11	
Trichloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.4	
1,2-Dichloropropane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.5	
Bromodichloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	7.4	
Dibromomethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	7.7	
cis-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.3	
Toluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.4	
trans-1,3-Dichloropropene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	6.4	
1,1,2-Trichloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.2	
Tetrachloroethene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.0	
trans-1,4-Dichloro-2-butene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	18	
Dibromochloromethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.1	
1,2-Dibromoethane	Not detected	ug/kg	20	5035/8260B	07/17/14 15:42	JGH	6.2	
Chlorobenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	8.1	

J-Estimated value less than reporting limit, but greater than MDL

B-Compound also found in associated method blank



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S61843.07 (continued)

Sample Tag: Field Blank

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	MDL	Flags
Organics - Volatiles (continued)								
Volatile Organics 5035 (continued)								
1,1,1,2-Tetrachloroethane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.1	
Ethylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.6	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	18	
o-Xylene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.1	
Styrene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	9.6	
Isopropylbenzene	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	8.6	
Bromoform	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.9	
1,1,1,2,2-Tetrachloroethane	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	7.2	
1,2,3-Trichloropropane	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	18	
n-Propylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.8	
Bromobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.5	
1,3,5-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.8	
tert-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10	
1,2,4-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	9.9	
sec-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	10	
p-Isopropyltoluene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	10	
1,3-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	10	
1,4-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	8.5	
1,2-Dichlorobenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	11	
1,2,3-Trimethylbenzene	Not detected	ug/kg	100	5035/8260B	07/17/14 15:42	JGH	6.7	
n-Butylbenzene	Not detected	ug/kg	50	5035/8260B	07/17/14 15:42	JGH	4.1	
Hexachloroethane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	6.5	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	300	5035/8260B	07/17/14 15:42	JGH	11	
1,2,4-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	6.6	
1,2,3-Trichlorobenzene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	7.6	
Naphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	6.7	
2-Methylnaphthalene	Not detected	ug/kg	330	5035/8260B	07/17/14 15:42	JGH	7.8	

ATTACHMENT #6: SOIL BORING LOGS

Log of Borehole: SB-132 (07/10/14)

Applied EcoSystems, Inc.

Environmental Management, Consulting & Field Services
 G-4300 South Saginaw Street, Burton, Michigan 48529
 Phone: (810)715-2525 Fax: (810)715-2526

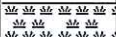


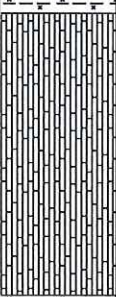



Project Number: 11-4317-102

Project Name: 100-12990-0012 (Former Building 9)

Address: Delphi - Flint West Facility

City: Flint, Michigan

Drill Date: 07/10/14

SUBSURFACE PROFILE			SAMPLE	Recovery (inch)	Photoionization Detector (PID)
Depth	Description	USCS Classification	Depth		
ft m	Ground Surface				
0 0	Topsoil			40/60	
	SP Black poorly-graded sands, gravelly sands, little or no fines.				
2	SM Brown silty sands				
4					
6				60/60	
2	Silty Clay Brown Silty Clay				
8	SM Brown silty sands, sand-silt mixtures.				
10					
12	Silty Clay Gray silty sands, sand-silt mixtures. Silty Clay		SB132/11-12	60/60	
4	Shale Brown silty sands. Silty Shale				
14			SB132/14-15		
16	End of Log				

Drill Start: 2:30 PM
Drill End: 4:30 PM
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Jesse W. Anderson
Sheet: 1 of 1

Applied EcoSystems, Inc.

Environmental Management, Consulting & Field Services
 G-4300 South Saginaw Street, Burton, Michigan 48529
 Phone: (810)715-2525 Fax: (810)715-2526

Log of Borehole: SB-133 (07/10/14)

Project Number: 11-4317-102

Project Name: 100-12990-0012 (Former Building 9)

Address: Delphi - Flint West Facility

City: Flint, Michigan

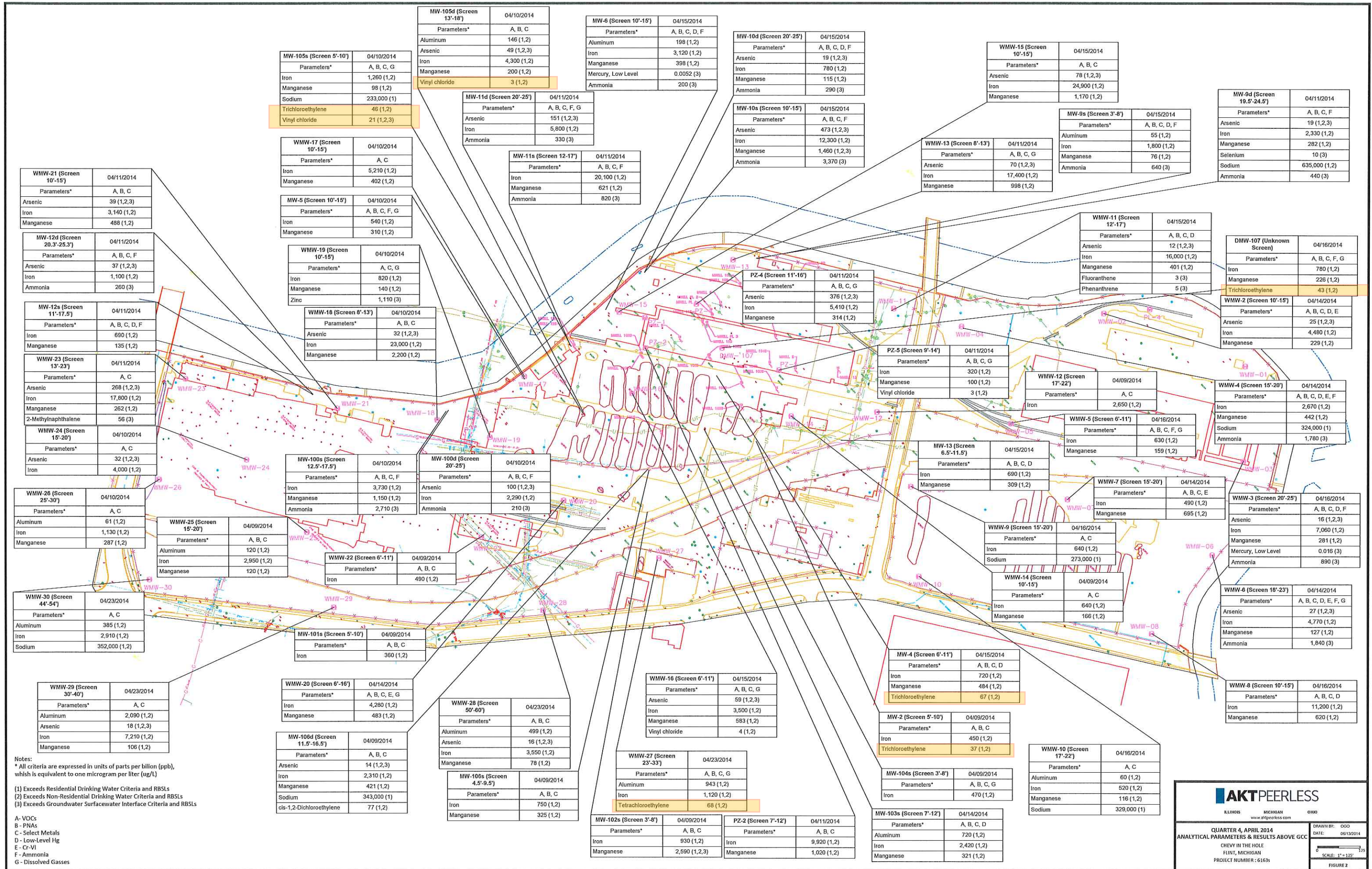
Drill Date: 07/10/14

SUBSURFACE PROFILE			SAMPLE		Photoionization Detector (PID)
Depth	Description	USCS Classification	Depth	Recovery (inch)	
0	Ground Surface				
0	<i>Topsoil</i>			40/60	
2	<i>Sand and Gravel</i> Sand, Gravel and Coal fragments				
4	<i>Silty Sand</i> Brown Sand with some Silty Sand, wet at 6.5'				
6				60/60	
8					
10					
12				60/60	
14					
16					
18	<i>Silty Clay</i> Gray Silty Clay		SB133/16-17		
20			SB133/18-19		
20			SB133/19-20		
22	End of Log				

Drill Start: 3PM
Drill End: 4:30PM
Drill Method: Geoprobe 6600 - Direct Push
Diameter: 2-inch

Contractor: Applied EcoSystems, Inc.
Driller: Lynn Ledebuhr
Logger: Jesse W. Anderson
Sheet: 1 of 1

ATTACHMENT #7: AKT CHEVY-IN-THE-HOLE



MW-105s (Screen 5'-10')	04/10/2014
Parameters*	A, B, C, G
Iron	1,260 (1,2)
Manganese	98 (1,2)
Sodium	233,000 (1)
Trichloroethylene	46 (1,2)
Vinyl chloride	21 (1,2,3)

MW-105d (Screen 13'-18')	04/10/2014
Parameters*	A, B, C
Aluminum	146 (1,2)
Arsenic	49 (1,2,3)
Iron	4,300 (1,2)
Manganese	200 (1,2)
Vinyl chloride	3 (1,2)

MW-6 (Screen 10'-15')	04/15/2014
Parameters*	A, B, C, D, F
Aluminum	198 (1,2)
Iron	3,120 (1,2)
Manganese	398 (1,2)
Mercury, Low Level	0.0052 (3)
Ammonia	200 (3)

MW-10d (Screen 20'-25')	04/15/2014
Parameters*	A, B, C, D, F
Arsenic	19 (1,2,3)
Iron	780 (1,2)
Manganese	115 (1,2)
Ammonia	290 (3)

WMW-15 (Screen 10'-15')	04/15/2014
Parameters*	A, B, C
Arsenic	78 (1,2,3)
Iron	24,900 (1,2)
Manganese	1,170 (1,2)

MW-9d (Screen 19.5'-24.5')	04/11/2014
Parameters*	A, B, C, F
Arsenic	19 (1,2,3)
Iron	2,330 (1,2)
Manganese	282 (1,2)
Selenium	10 (3)
Sodium	635,000 (1,2)
Ammonia	440 (3)

WMW-21 (Screen 10'-15')	04/11/2014
Parameters*	A, B, C
Arsenic	39 (1,2,3)
Iron	3,140 (1,2)
Manganese	488 (1,2)

WMW-17 (Screen 10'-15')	04/10/2014
Parameters*	A, C
Iron	5,210 (1,2)
Manganese	402 (1,2)

MW-11d (Screen 20'-25')	04/11/2014
Parameters*	A, B, C, F, G
Arsenic	151 (1,2,3)
Iron	5,800 (1,2)
Ammonia	330 (3)

MW-10s (Screen 10'-15')	04/15/2014
Parameters*	A, B, C, F
Arsenic	473 (1,2,3)
Iron	12,300 (1,2)
Manganese	1,460 (1,2,3)
Ammonia	3,370 (3)

WMW-13 (Screen 8'-13')	04/11/2014
Parameters*	A, B, C, G
Arsenic	70 (1,2,3)
Iron	17,400 (1,2)
Manganese	998 (1,2)

MW-9s (Screen 3'-8')	04/15/2014
Parameters*	A, B, C, D, F
Aluminum	55 (1,2)
Iron	1,800 (1,2)
Manganese	76 (1,2)
Ammonia	640 (3)

MW-12d (Screen 20.3'-25.3')	04/11/2014
Parameters*	A, B, C, F
Arsenic	37 (1,2,3)
Iron	1,100 (1,2)
Ammonia	260 (3)

MW-5 (Screen 10'-15')	04/10/2014
Parameters*	A, B, C, F, G
Iron	540 (1,2)
Manganese	310 (1,2)

MW-11s (Screen 12-17')	04/11/2014
Parameters*	A, B, C, F
Iron	20,100 (1,2)
Manganese	621 (1,2)
Ammonia	820 (3)

PZ-4 (Screen 11'-16')	04/11/2014
Parameters*	A, B, C, G
Arsenic	376 (1,2,3)
Iron	5,410 (1,2)
Manganese	314 (1,2)

WMW-11 (Screen 12'-17')	04/15/2014
Parameters*	A, B, C, D
Arsenic	12 (1,2,3)
Iron	16,000 (1,2)
Manganese	401 (1,2)
Fluoranthene	3 (3)
Phenanthrene	5 (3)

DMW-107 (Unknown Screen)	04/16/2014
Parameters*	A, B, C, F, G
Iron	780 (1,2)
Manganese	228 (1,2)
Trichloroethylene	43 (1,2)

MW-12s (Screen 11'-17.5')	04/11/2014
Parameters*	A, B, C, D, F
Iron	690 (1,2)
Manganese	135 (1,2)

WMW-19 (Screen 10'-15')	04/10/2014
Parameters*	A, C, G
Iron	820 (1,2)
Manganese	140 (1,2)
Zinc	1,110 (3)

MW-11s (Screen 12-17')	04/11/2014
Parameters*	A, B, C, F
Iron	20,100 (1,2)
Manganese	621 (1,2)
Ammonia	820 (3)

PZ-5 (Screen 9'-14')	04/11/2014
Parameters*	A, B, C, G
Iron	320 (1,2)
Manganese	100 (1,2)
Vinyl chloride	3 (1,2)

WMW-12 (Screen 17'-22')	04/09/2014
Parameters*	A, C
Iron	2,650 (1,2)

WMW-2 (Screen 10'-15')	04/14/2014
Parameters*	A, B, C, D, E
Arsenic	25 (1,2,3)
Iron	4,480 (1,2)
Manganese	229 (1,2)

WMW-23 (Screen 13'-23')	04/11/2014
Parameters*	A, C
Arsenic	268 (1,2,3)
Iron	17,800 (1,2)
Manganese	262 (1,2)
2-Methylnaphthalene	56 (3)

WMW-18 (Screen 8'-13')	04/10/2014
Parameters*	A, B, C
Arsenic	32 (1,2,3)
Iron	23,000 (1,2)
Manganese	2,200 (1,2)

MW-100s (Screen 12.5'-17.5')	04/10/2014
Parameters*	A, B, C, F
Iron	3,730 (1,2)
Manganese	1,150 (1,2)
Ammonia	2,710 (3)

MW-13 (Screen 6.5'-11.5')	04/15/2014
Parameters*	A, B, C, D
Iron	690 (1,2)
Manganese	309 (1,2)

WMW-5 (Screen 6'-11')	04/16/2014
Parameters*	A, B, C, F, G
Iron	630 (1,2)
Manganese	159 (1,2)

WMW-4 (Screen 15'-20')	04/14/2014
Parameters*	A, B, C, D, E, F
Iron	2,670 (1,2)
Manganese	442 (1,2)
Sodium	324,000 (1)
Ammonia	1,780 (3)

WMW-26 (Screen 25'-30')	04/10/2014
Parameters*	A, C
Aluminum	61 (1,2)
Iron	1,130 (1,2)
Manganese	287 (1,2)

MW-100d (Screen 20'-25')	04/10/2014
Parameters*	A, B, C, F
Arsenic	100 (1,2,3)
Iron	2,290 (1,2)
Ammonia	210 (3)

MW-100s (Screen 12.5'-17.5')	04/10/2014
Parameters*	A, B, C, F
Iron	3,730 (1,2)
Manganese	1,150 (1,2)
Ammonia	2,710 (3)

WMW-9 (Screen 15'-20')	04/16/2014
Parameters*	A, C
Iron	640 (1,2)
Sodium	273,000 (1)

WMW-7 (Screen 15'-20')	04/14/2014
Parameters*	A, B, C, E
Iron	490 (1,2)
Manganese	695 (1,2)

WMW-3 (Screen 20'-25')	04/16/2014
Parameters*	A, B, C, D, F
Arsenic	16 (1,2,3)
Iron	7,060 (1,2)
Manganese	281 (1,2)
Mercury, Low Level	0.016 (3)
Ammonia	890 (3)

WMW-30 (Screen 44'-54')	04/23/2014
Parameters*	A, C
Aluminum	385 (1,2)
Iron	2,910 (1,2)
Sodium	352,000 (1,2)

WMW-25 (Screen 15'-20')	04/09/2014
Parameters*	A, B, C
Aluminum	120 (1,2)
Iron	2,950 (1,2)
Manganese	120 (1,2)

WMW-22 (Screen 6'-11')	04/09/2014
Parameters*	A, B, C
Iron	490 (1,2)

WMW-16 (Screen 6'-11')	04/15/2014
Parameters*	A, B, C, G
Arsenic	59 (1,2,3)
Iron	3,500 (1,2)
Manganese	583 (1,2)
Vinyl chloride	4 (1,2)

MW-4 (Screen 6'-11')	04/15/2014
Parameters*	A, B, C, D
Iron	720 (1,2)
Manganese	484 (1,2)
Trichloroethylene	67 (1,2)

WMW-14 (Screen 10'-15')	04/09/2014
Parameters*	A, C
Iron	640 (1,2)
Manganese	166 (1,2)

WMW-6 (Screen 18'-23')	04/14/2014
Parameters*	A, B, C, D, E, F, G
Arsenic	27 (1,2,3)
Iron	4,770 (1,2)
Manganese	127 (1,2)
Ammonia	1,840 (3)

WMW-29 (Screen 30'-40')	04/23/2014
Parameters*	A, C
Aluminum	2,090 (1,2)
Arsenic	18 (1,2,3)
Iron	7,210 (1,2)
Manganese	106 (1,2)

WMW-20 (Screen 6'-16')	04/14/2014
Parameters*	A, B, C, E, G
Iron	4,280 (1,2)
Manganese	483 (1,2)

WMW-28 (Screen 50'-60')	04/23/2014
Parameters*	A, B, C
Aluminum	499 (1,2)
Arsenic	16 (1,2,3)
Iron	3,550 (1,2)
Manganese	78 (1,2)

WMW-27 (Screen 23'-33')	04/23/2014
Parameters*	A, B, C, G
Aluminum	943 (1,2)
Iron	1,120 (1,2)
Tetrachloroethylene	68 (1,2)

MW-2 (Screen 5'-10')	04/09/2014
Parameters*	A, B, C
Iron	450 (1,2)
Trichloroethylene	37 (1,2)

WMW-10 (Screen 17'-22')	04/16/2014
Parameters*	A, C
Aluminum	60 (1,2)
Iron	520 (1,2)
Manganese	116 (1,2)
Sodium	329,000 (1)

WMW-8 (Screen 10'-15')	04/16/2014
Parameters*	A, B, C, D
Iron	11,200 (1,2)
Manganese	620 (1,2)

Notes:
 * All criteria are expressed in units of parts per billion (ppb), which is equivalent to one microgram per liter (ug/L)
 (1) Exceeds Residential Drinking Water Criteria and RBSLs
 (2) Exceeds Non-Residential Drinking Water Criteria and RBSLs
 (3) Exceeds Groundwater Surfacewater Interface Criteria and RBSLs
 A - VOCs
 B - PNA's
 C - Select Metals
 D - Low-Level Hg
 E - Cr-VI
 F - Ammonia
 G - Dissolved Gases

AKTPEERLESS
 ILLINOIS MICHIGAN OHIO
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 QUARTER 4, APRIL 2014
 ANALYTICAL PARAMETERS & RESULTS ABOVE GCG
 CHEVY IN THE HOLE
 FLINT, MICHIGAN
 PROJECT NUMBER : 6163s
 DRAWN BY: GGG
 DATE: 06/13/2014
 SCALE: 1" = 125'
 FIGURE 2