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Mr. Jeffrey Crawford
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908-5767

ENVIRONMENTAL

Subject:
April 2015 Quarterly Monitoring Report for Springfield Street School Complex

Dear Mr. Crawford:

Date:
July 17 2015

ARCADIS US, Inc. (ARCADIS) conducted quarterly monitoring of soil gas, indoor air, the cap, and the sub-slab ventilation system on April 1st and 2nd, 2015. The monitoring was performed in accordance with the *Long-Term Operation and Maintenance Plan and Site Contingency Plan (O&M Plan)* contained in the *Remedial Action Work Plan* prepared by ATC dated April 2, 1999, revised May 3, 1999 and May 9, 1999. The *Remedial Action Work Plan (RAWP)* was approved by the Rhode Island Department of Environmental Management (RIDEM) in a letter dated June 4, 1999.

Contact:
Donna H. Pallister, PE

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401.285.2235

Email:
Donna.pallister@arcadis-us.com

This work is subject to the Limitations contained in Attachment A. Results of monitoring are provided in the following sections and in the attachments.

Our ref:
WK012152.0010

COVER MONITORING

ARCADIS conducted a visual survey of the site on April 2, 2015 for evidence of significant soil cover erosion, or for any areas of settling and depression.

The orange indicator barrier was not observed during the inspection, and there was no evidence of significant settling or cover erosion in need of repair.

SUB-SLAB VENTILATION SYSTEM

Field Monitoring

The sub-slab ventilation system was inspected by ARCADIS during the quarterly monitoring on April 2nd, 2015. The two elementary school blowers were operating normally upon arrival. The Middle school (MS) front and rear were not operating upon arrival and were not tested. The MS rear blower could not be re-started. The MS front blower knockout tank was drained and the blower was re-started.

Samples of influent and effluent (before and after the carbon canisters) air were collected at each functioning blower and screened for methane, carbon dioxide, oxygen, carbon monoxide, hydrogen sulfide, and organic vapors using a Landtec GEM2000 Plus and a MiniRae 2000. Results of screening are provided on Table 1. Methane, carbon monoxide, hydrogen sulfide and organic vapors were not detected in any of the samples. Carbon dioxide was detected at concentrations of 0.2% at all three of the elementary school blower samples; all the sample concentrations were greater than the RAWP Action Level of 1000 ppm (0.1%).

Soil Gas Laboratory Results

Sub-slab soil gas samples were collected from the influent to the two elementary school and front middle school sub-slab ventilation systems on May 11, 2015. Samples collected during the April event were not able to be analyzed by the laboratory due to loss of air pressure in the Tedlar bags. The samples were collected in Tedlar bags and submitted to Con-Test Analytical Laboratories for analysis of volatile organic compounds (VOCs) by EPA method TO-14. Results of the analysis are summarized in Table 2, and the laboratory report is provided in Attachment B.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) and CT DEEP Proposed Residential Volatilization Criteria for Soil Vapor are provided in Table 2 for comparison purposes. The OSHA PELs are not directly applicable to soil gas, because it does not represent exposure point concentrations. The PELs are the average concentrations that OSHA allows to be present in a workplace without any respiratory protection or exposure controls. The concentrations detected in soil gas were well below the OSHA PELs and the CT DEEP Proposed Residential Volatilization Criteria.

INDOOR AIR MONITORING

Indoor air monitoring was conducted on April 1, 2015 using a Landtec GEM 2000 Plus meter (methane, hydrogen sulfide, oxygen), a Mini Rae photoionization detector (organic vapors), and a Fluke 975 Airmeter (carbon dioxide, carbon monoxide). School was in session during the monitoring event. Results of monitoring are provided in the Table 3. Carbon dioxide measurements were made with a Fluke 975 Airmeter indoor air quality meter. The Fluke 975 has a range of 0 to 5,000 ppm, with a resolution of 1 ppm.

The outside temperature on April 1st, 2015 was approximately 42°F and ambient carbon dioxide was measured at 505 ppm.

All readings were below the RAWP Action Levels. Methane, carbon monoxide, hydrogen sulfide, and organic vapors were not detected. Carbon dioxide was detected at concentrations between 523 and 945 ppm. As noted below, these readings are within the expected range for indoor air levels of carbon dioxide in an occupied building.

Concentrations of carbon dioxide inside occupied buildings are expected to be higher than the concentrations in outdoor air because the building occupants expel carbon dioxide. Therefore, in indoor air, the concentration of carbon dioxide is typically used as an indicator of the effectiveness of the heating, ventilating, and air conditioning (HVAC) system in circulating outdoor air into the building. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have prepared ASHRAE Standard 62.1-2007 titled *Ventilation for Acceptable Indoor Air Quality*. The purpose of the Standard is to specify minimum ventilation rates and other measures to provide indoor air quality that is acceptable to human occupants and that minimize adverse health effects. A discussion regarding carbon dioxide concentrations in indoor air contained in Informative Appendix C of the Standard states: "... maintaining a steady-state CO₂ concentration in a space of no greater than about 700 ppm above outdoor air levels will indicate that a substantial majority of visitors entering a space will be satisfied with respect to human bioeffluents (body odor)." This is the basis for ASHRAE's recommendations for concentrations of carbon dioxide in indoor air.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for carbon dioxide in the workplace is 5,000 ppm. All readings were below this concentration.

The control panels for the methane monitors at both schools were inspected on April 1, 2015. The methane monitor control panels had stickers that indicated that the monitors were calibrated by Diamond Technical Services within the month prior to the inspection. Diamond Technical Services calibrates the sensors on a monthly basis.

Calibration Certificates from Diamond Calibration indicate that many of the sensors read above 0 when calibrated to the zero gas. This prevents the sensors from giving a fault alarm if the reading drops below zero due to a sudden temperature change, and still provides a conservative measure of protection because the alarm limit does not change.

GROUNDWATER MONITORING

The groundwater monitoring wells were sampled by ARCADIS on April 2, 2015. Prior to sampling, the depth to water was gauged, and a volume of water equivalent to approximately three well volumes was removed from the well. Groundwater samples were collected in laboratory prepared sample jars and delivered under chain-of-custody protocol to Contest Laboratory in East Longmeadow, Massachusetts for analysis for volatile organic compounds by EPA method 8260. The laboratory report is provided as Attachment B. Results of analysis of groundwater samples are summarized in Table 4.

No target analytes were detected in any of the groundwater samples collected on April 2, 2015.

SOIL GAS MONITORING

Soil gas monitoring was conducted at 29 locations on April 2, 2015. The sampling was conducted by placing an air sampling gripper cap on each well and attaching a piece of tubing. A volume of air equivalent to approximately 3 well volumes was removed from each well using a Sensidyne BDXII air sampling pump. Soil gas was then screened using a Landtec GEM 2000 Plus Landfill Gas Analyzer and a MiniRae Photoionization Detector (PID).

Soil Gas Field Monitoring Results

Soil gas samples were screened for methane, carbon monoxide, hydrogen sulfide, carbon dioxide, oxygen, and total VOCs. Two wells were not tested; well WB-3 was not accessible due to snow and WB-4 was damaged from winter. Soil gas survey results are provided in Table 5. Carbon monoxide, hydrogen sulfide, and total VOCs were not detected in any samples.

Methane was detected in soil gas concentrations of 1.4% at well MPL7 and 2.5% at well MPL6. Both wells exceeded the RAWP levels during the April monitoring event. The spike in methane production could be attributed to the presence of subsurface anaerobic bacteria that yield methane rather than carbon dioxide in wet environments. Carbon dioxide concentrations were detected in soil gas ranging from 0.1% to 8.1%. The carbon dioxide RAWP action level of 0.1% was exceeded at every monitoring point. The maximum concentration detected during the April 2015 monitoring round was 8.1%, which was lower than the maximum detected during the December 2014 round of 8.4%. This is consistent with the pattern shown during previous rounds of declining carbon dioxide concentrations in the winter, and increasing concentrations in the summer and early fall. Graphs depicting carbon

dioxide, oxygen, and methane concentrations over time for selected representative wells are presented in Attachment C.

The presence of carbon dioxide in soil gas is an indicator of subsurface bacterial activity and does not represent a threat to users of the property. The highest concentration of carbon dioxide was found in well MPL-6, located on the northern end of the property near Hartford Avenue. The monitoring locations on the northern end of the property adjacent to large expanses of paved parking lot, sidewalk, and streets have typically had the highest carbon dioxide concentrations.

CONCLUSIONS

Hydrogen sulfide, carbon monoxide and organic vapor concentrations did not exceed RAWP action levels in any soil gas or indoor air samples in this quarterly round of sampling. Methane concentrations exceeded the action level at two monitoring well sites, MPL6 and MPL7. Carbon dioxide concentrations exceeded the action level at 29 soil gas locations and sub slab system monitoring points. The detection of carbon dioxide in soil gas is typical of what has been detected during previous monitoring events and appears to be a result of naturally occurring bacterial activity in the subsurface.

If you have any questions or require any additional information, please contact the undersigned at 401-285-2235.

Sincerely,

ARCADIS U.S., Inc.



Donna H. Pallister, PE, LSP
Senior Environmental Engineer

Copies:

A. Sepe, City of Providence
Providence Public Building Authority

Tables

Table 1
 System Monitoring Notes
 Springfield Street School Complex
 Providence, Rhode Island
 April 2nd, 2015

Monitoring Location	Methane % by volume Landtec	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
Elementary School inlet 1	0.0	0.2	222.2	0	0	0.0
Elementary School inlet 2	0.0	0.2	22.0	0	0	0.0
Elementary School Outlet	0.0	0.2	22.1	0	0	0.0
Middle School front shed inlet *	NT	NT	NT	NT	NT	NT
Middle School front shed after 2 nd carbon *	NT	NT	NT	NT	NT	NT
Middle School back shed inlet #	NT	NT	NT	NT	NT	NT
Middle School back shed after 2 nd carbon #	NT	NT	NT	NT	NT	NT
Remedial Action Work Plan Action Levels	0.5	1,000 ppm (0.1%)	NA	9 ppm	10 ppm	5 ppm

Measurements made with: Landtec GEM2000 Plus, MiniRae 2000

Sampling date: April 2nd, 2015

Measured by: Andrew DaSilva

#- Middle school back and front shed not tested because blower not functioning properly at the time of inspection.

Table 2
Soil Gas Samples Collected from System Influent
Springfield Street School Complex

Parameter	Sample Date	CT DEEP Proposed Residential Volatilization Criteria For Soil Vapor (ug/m3)*	OSHA PELs (ug/m3)	Middle School Back (ug/m3)	Middle School Front (ug/m3)	Elementary School #1 (ug/m3)	Elementary School #2 (ug/m3)
Benzene	12/10/2013	3,247	3,000	0.14	0.12	0.2	0.2
	3/24/2014			0.57	0.63	0.72	0.68
	6/10/14 and 7/01/14			0.42	0.52	0.45	ND
	9/19/14 and 9/23/14			NT	0.53	0.7	0.57
	12/19/2014			NT	0.93	0.63	0.67
	5/11/2015			NT	0.43	0.49	0.61
Carbon Tetrachloride	12/10/2013	6,395	62,900	ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
	6/10/14 and 7/01/14			0.46	0.68	ND	ND
	9/19/14 and 9/23/14			NT	ND	ND	ND
	12/19/2014			NT	ND	ND	ND
	5/11/2015			ND	ND	ND	ND
Chloroform	12/10/2013	22,334	240,000	ND	0.15	0.36	0.39
	3/24/2014			ND	ND	0.76	0.75
	6/10/14 and 7/01/14			0.46	ND	1.9	1.9
	9/19/14 and 9/23/14			NT	ND	2.2	2.2
	12/19/2014			NT	ND	1	1.1
	5/11/2015			NT	ND	0.85	1.1
Chloromethane	12/10/2013	NA	207,000	0.25	ND	ND	ND
	3/24/2014			ND	0.44	ND	ND
	6/10/14 and 7/01/14			1.2	ND	ND	ND
	9/19/14 and 9/23/14			NT	0.89	ND	ND
	12/19/2014			NT	1.20	ND	ND
	5/11/2015			NT	0.57	ND	ND
Dichlorodifluoromethane (Freon 12)	12/10/2013	NA	4,950,000	1.2	2.8	1.2	1.2
	3/24/2014			4.4	2.6	3.1	3.1
	6/10/14 and 7/01/14			4.6	6.9	4.1	4.1
	9/19/14 and 9/23/14			NT	38	3.8	3.9
	12/19/2014			NT	3.6	4.9	5
	5/11/2015			NT	3.0	4.1	3
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	12/10/2013	NA	7,000,000	0.71	2.7	0.33	0.32
	3/24/2014			4.2	1.1	0.75	0.75
	6/10/14 and 7/01/14			5.4	6.1	ND	0.91
	9/19/14 and 9/23/14			NT	24	2.0	2
	12/19/2014			NT	ND	1	0.98
	5/11/2015			NT	0.82	2.1	1.1
Ethylbenzene	12/10/2013	7,281,812	435,000	0.17	0.16	0.19	0.21
	3/24/2014			0.70	0.70	0.77	0.66
	6/10/14 and 7/01/14			0.29	0.52	ND	ND
	9/19/14 and 9/23/14			NT	ND	ND	ND
	12/19/2014			NT	ND	ND	ND
	5/11/2015			NT	2.80	2.5	3.9
Methylene Chloride	12/10/2013	4,237,289	86,750	2.3	2.2	2.4	2.7
	3/24/2014			6.6	5.5	6.6	6.2
	6/10/14 and 7/01/14			6.2	12	11	11
	9/19/14 and 9/23/14			NT	6.7	23	20
	12/19/2014			NT	3.9	4.4	4.2
	5/11/2015			NT	ND	ND	ND
Styrene	12/10/2013	34,633	456,000	0.29	0.25	0.3	0.29
	3/24/2014			0.49	0.49	ND	0.48
	6/10/14 and 7/01/14			56	13	5.3	5
	9/19/14 and 9/23/14			NT	4.7	3.5	2.9
	12/19/2014			NT	5	2.7	2.5
	5/11/2015			NT	30	28	34
Tetrachloroethylene	12/10/2013	75,840	678,000	1.1	1.4	1.1	1.5
	3/24/2014			3.6	2.3	3.3	2.9
	6/10/14 and 7/01/14			3.2	5.6	3.3	4.2
	9/19/14 and 9/23/14			NT	3.6	100	13
	12/19/2014			NT	1.8	2.8	3.3
	5/11/2015			NT	15	11	3.7
Toluene	12/10/2013	2,910,779	750,000	4.6	3.4	4	3.9
	3/24/2014			4.5	4.7	4.7	5.3
	6/10/14 and 7/01/14			51	33	13	10
	9/19/14 and 9/23/14			NT	8.3	6.6	5.9
	12/19/2014			NT	54	20	22
	5/11/2015			NT	46	41	53
1,1,1-Trichloroethane	12/10/2013	NA	1,900,000	ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
	6/10/14 and 7/01/14			ND	ND	ND	ND
	9/19/14 and 9/23/14			NT	ND	0.68	ND
	12/19/2014			NT	ND	ND	ND
	5/11/2015			NT	ND	ND	ND
Trichloroethylene	12/10/2013	38,237	537,000	ND	0.11	0.12	0.15
	3/24/2014			ND	ND	0.62	0.56
	6/10/14 and 7/01/14			0.35	0.71	0.59	0.54
	9/19/14 and 9/23/14			NT	ND	1.7	0.84
	12/19/2014			NT	0.82	ND	1.2
	5/11/2015			ND	ND	1.5	ND
Trichlorofluoromethane (Freon 11)	12/10/2013	NA	5,600,000	1.1	1.2	1.1	0.76
	3/24/2014			3.2	2.4	2.8	2.8
	6/10/14 and 7/01/14			4	10	15	8.1
	9/19/14 and 9/23/14			NT	7.3	4.3	6.3
	12/19/2014			NT	5.0	3.1	4
	5/11/2015			NT	2.7	2.6	4.5
1,1,2-Trichloro-1,2,2-trifluoromethane(Freon 113)	12/10/2013	NA	7,600,000	ND	ND	ND	ND
	3/24/2014			ND	ND	ND	ND
	6/10/14 and 7/01/14			ND	ND	ND	ND
	9/19/14 and 9/23/14			NT	0.9	ND	ND
	12/19/2014			NT	ND	ND	ND
	5/11/2015			NT	ND	ND	ND
1,2,4-Trimethylbenzene	12/10/2013	NA	125,000	ND	ND	ND	ND
	3/24/2014			ND	0.11	ND	ND
	6/10/14 and 7/01/14			0.35	ND	ND	ND
	9/19/14 and 9/23/14			NT	ND	ND	ND
	12/19/2014			NT	ND	ND	ND
	5/11/2015			NT	1.9	1.7	2.3
M/p-Xylene	12/10/2013	2,215,755#	435,000	0.9	0.89	0.93	1.1
	3/24/2014			2.9	3.2	3.3	2.9
	6/10/14 and 7/01/14			1.1	2.2	1.6	1.8
	9/19/14 and 9/23/14			NT	1.3	1.2	1.3
	12/19/2014			NT	0.96	0.89	ND
	5/11/2015			NT	18	17	25
o-Xylene	12/10/2013	2,215,755#	435,000	0.28	0.3	0.32	0.36
	3/24/2014			1.4	1.4	1.4	1.2
	6/10/14 and 7/01/14			0.66	1.1	0.84	0.83
	9/19/14 and 9/23/14			NT	0.55	0.63	0.74
	12/19/2014			NT	ND	ND	ND
	5/11/2015			NT	3.6	3.5	5.4

Notes:
Samples collected in Tedlar bags and analyzed via EPA method TO-14
Only detected compounds are listed, see laboratory certificate for complete list of analyses
OSHA PELs = Occupational Safety and Health Administration Permissible Exposure Limits
CT DEEP= Connecticut Department of Energy and Environmental Protection
ug/m3 = micrograms per cubic meter
* From Appendix F to Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies
#- Represents Total Xylenes
NT = Not Tested
ND = Non Detect
Samples collected prior to December 2013 are not shown.

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
Providence, Rhode Island
April 1, 2015

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
E.S. Front office	0.0	837	22.0	0	0	0.0
E.S. Elevator	0.0	670	22.1	0	0	0.0
E.S. Faculty Work Room	0.0	914	22.0	0	0	0.0
E.S. Gym	0.0	812	22.0	0	0	0.0
E.S. Stairway B	0.0	698	22.1	0	0	0.0
E.S. Stairway C	0.0	720	22.0	0	0	0.0
E.S. Library	0.0	865	22.1	0	0	0.0
E.S. Front Stairs	0.0	750	22.1	0	0	0.0
E.S. Cafeteria	0.0	856	22.0	0	0	0.0
E.S. Hall Near Gym	0.0	780	22.0	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
Providence, Rhode Island
April 1, 2015

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Front Office	0.0	546	22.1	0	0	0.0
M.S. Elevator	0.0	644	22.2	0	0	0.0
M.S. Stairway near Elem. School GS-01	0.0	766	22.2	0	0	0.0
M.S. Near sensor #16 in hall outside cafeteria	0.0	715	22.2	0	0	0.0
M.S. Faculty Work Room	0.0	699	22.1	0	0	0.0
M.S. Sensor #15 Outside Gym	0.0	748	22.2	0	0	0.0
M.S. GS-03 Across from Boys Bathroom	0.0	844	22.1	0	0	0.0
M.S. Second Floor - Library	0.0	653	22.1	0	0	0.0
M.S. Outside of Music Room	0.0	657	22.1	0	0	0.0
M.S. Cafeteria	0.0	944	22.0	0	0	0.0

Table 3
Indoor Air Monitoring Results
Springfield Street School Complex
Providence, Rhode Island
April 1, 2015

Monitoring Location	Methane as % LEL	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Front Hall near sensor #4	0.0	523	22.1	0	0	0.0
M.S. Hallway across from elevator near sensor #9	0.0	673	22.2	0	0	0.0
M.S. Near sensor GS 06 hallway right end	0.0	945	22.2	0	0	0.0
M.S. stairway near Hartford Ave. sensor GS-7	0.0	845	22.2	0	0	0.0
Remedial Action Work Plan Action Levels	0.5%	1,000 ppm (0.1%)	NA	9 ppm	5 ppm	5 ppm

Notes:

E.S. indicates Elementary School, M.S. indicates Middle School

Measurements made with: MiniRae photoionization detector, Fluke 975 Airmeter, Landtec Gem 2000 Plus

PPM = Parts per million

Outdoor conditions: carbon dioxide = 505 ppm temperature = 42 degrees F

**Table 4
Groundwater Monitoring Results
Springfield Street School
Providence, Rhode Island**

Well ID	Detected Compounds	Sampling Dates and Results in ug/L						RIDEM GB Groundwater Objective
		12/10/2013	3/24/2014	6/10/2014	9/19/2014	12/18/2014	4/2/2015	
ATC-1		ND	ND	ND	ND	ND	ND	
ATC-2								
	Chloroform	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	
MW-6								
	Chloroform	NS	ND	2.1	4.1	ND	ND	NA
	Installed 4/2011							
ATC-3								
		Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	
MW-7		ND	ND	ND	ND	ND	ND	
	Installed 4/2011							
ATC-4								
	Chlorobenzene	1.4	ND	ND	ND	ND	ND	70
	1,4-dichlorobenzene	2.3	1.6	ND	2.0	1.2	ND	NA
ATC-5								
		Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	Closed 4/2011	
MW-8		ND	ND	ND	ND	ND	ND	
	Installed 4/2011							
	Sampled By:	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	ARCADIS	

ND = not detected above method detection limit

NS = not sampled

NA = No applicable standard published

MTBE = Methyl tert-Butyl Ether

µg/L = micrograms per liter

Samples collected prior to December 2013 are not shown.

Table 5
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
April 2, 2015

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
WB-1	0.0	0.9	20.9	0	0	0.0
WB-2	0.0	0.2	21.9	0	0	0.0
WB-3	Under snowbank					
WB-4	Damaged from winter					
WB-5	0.0	0.1	21.3	0	0	0.0
WB-6	0.0	0.1	21.2	0	0	0.0
WB-7 R	0.0	0.2	21.5	0	0	0.0
WB-8	0.0	0.1	21.8	0	0	0.0
WB-12	0.0	0.9	21.2	0	0	0.0
WB-13	0.0	0.1	22.3	0	0	0.0
WB-14	0.0	0.2	21.1	0	0	0.0
WB-15	0.0	0.1	22.4	0	0	0.0
EPL-1	0.0	0.3	22.3	0	0	0.0
EPL-2	0.0	0.2	22.0	0	0	0.0
EPL-3	0.0	1.8	19.1	0	0	0.0
EPL-4	0.0	0.8	19.5	0	0	0.0
EPL-5	Under snowbank					
ENE-1	0.0	0.3	20.8	0	0	0.0

Table 5
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
April 2, 2015

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
MG1	0	1.8	19.8	0	0	0.0
MG2	0	2.5	20.1	0	0	0.0
MG3	0	1.2	20.7	0	0	0.0
MG4	0	0.4	21.6	0	0	0.0
MG5	0	0.1	21.5	0	0	0.0
MPL2	0	1.3	20.1	0	0	0.0
MPL3	0	2.0	19.2	0	0	0.0
MPL5	0	3.8	17.8	0	0	0.0
MPL6	2.5	8.1	1.5	0	0	0.0
MPL7	1.4	7.4	0.2	0	0	0.0
MPL8	0	1.2	21.1	0	0	0.0
Remedial Action Work Plan Action Levels	0.5%	0.1% (1,000 PPM)	NA	9 PPM	5 PPM	5 PPM

Sampled by: Andrew DaSilva

Weather Conditions: 50 degrees F, overcast

Sampling Equipment: Landtec GEM 2000 Plus, MiniRae 2000 PID

Figures



Attachment A

Limitations and Service
Constraints

LIMITATIONS AND SERVICE CONSTRAINTS

GENERAL REPORTS/DOCUMENT

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by ARCADIS and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that ARCADIS relied upon any information prepared by other parties not under contract to ARCADIS, ARCADIS makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when ARCADIS' investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. ARCADIS's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100% confidence in environmental investigation conclusions cannot reasonably be achieved.

ARCADIS, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.



Attachment B

Laboratory Results

May 19, 2015

Donna Pallister
Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886

Project Location: Springfield, Providence, RI
Client Job Number:
Project Number: WK012152.0010
Laboratory Work Order Number: 15E0476

Enclosed are results of analyses for samples received by the laboratory on May 12, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa A. Worthington", is displayed on a light gray rectangular background.

Lisa A. Worthington
Project Manager

Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	6
15E0476-01	6
15E0476-02	8
15E0476-03	10
15E0476-04	12
15E0476-05	14
15E0476-06	16
Sample Preparation Information	18
QC Data	19
Volatile Organic Compounds by GC/MS	19
B121963	19
Flag/Qualifier Summary	24
Certifications	25
Chain of Custody/Sample Receipt	27

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Arcadis US, Inc. - Warwick, RI
 300 Metro Center Blvd., Suite 250
 Warwick, RI 02886
 ATTN: Donna Pallister

REPORT DATE: 5/19/2015

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK012152.0010

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15E0476

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Springfield, Providence, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-8	15E0476-01	Ground Water		SW-846 8260C	
MW-6	15E0476-02	Ground Water		SW-846 8260C	
MW-7	15E0476-03	Ground Water		SW-846 8260C	
ATC-4	15E0476-04	Ground Water		SW-846 8260C	
ATC-1	15E0476-05	Ground Water		SW-846 8260C	
Trip Blank	15E0476-06	Trip Blank Water		SW-846 8260C	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8260C

Qualifications:**L-02**

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

B121963-BS1, B121963-BSD1

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**Bromomethane**

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Tetrahydrofuran**

B121963-BS1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**2,2-Dichloropropane**

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

Bromomethane

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

Dichlorodifluoromethane (Freon 1)

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

Naphthalene

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

Tetrahydrofuran

15E0476-01[MW-8], 15E0476-02[MW-6], 15E0476-03[MW-7], 15E0476-04[ATC-4], 15E0476-05[ATC-1], 15E0476-06[Trip Blank], B121963-BLK1, B121963-BS1, B121963-BSD1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

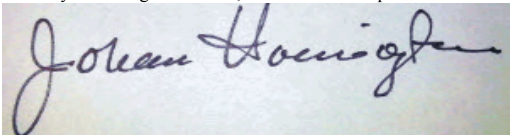
B121963-BS1, B121963-BSD1

tert-Butyl Alcohol (TBA)

B121963-BS1, B121963-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Johanna K. Harrington", is written over a light-colored rectangular background.

Johanna K. Harrington
Manager, Laboratory Reporting

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-8

Sampled: 5/7/2015 14:40

Sample ID: 15E0476-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/18/15 23:18	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-8

Sampled: 5/7/2015 14:40

Sample ID: 15E0476-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:18	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	82.5	70-130	5/18/15 23:18
Toluene-d8	96.2	70-130	5/18/15 23:18
4-Bromofluorobenzene	94.5	70-130	5/18/15 23:18

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-6

Sampled: 5/7/2015 15:20

Sample ID: 15E0476-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/18/15 23:48	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-6

Sampled: 5/7/2015 15:20

Sample ID: 15E0476-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:48	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 23:48	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	84.3	70-130	5/18/15 23:48
Toluene-d8	93.6	70-130	5/18/15 23:48
4-Bromofluorobenzene	92.6	70-130	5/18/15 23:48

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-7

Sampled: 5/7/2015 15:45

Sample ID: 15E0476-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/19/15 0:19	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: MW-7

Sampled: 5/7/2015 15:45

Sample ID: 15E0476-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:19	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:19	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	83.3	70-130	5/19/15 0:19
Toluene-d8	95.4	70-130	5/19/15 0:19
4-Bromofluorobenzene	93.6	70-130	5/19/15 0:19

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: ATC-4

Sampled: 5/7/2015 16:10

Sample ID: 15E0476-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/19/15 0:49	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: ATC-4

Sampled: 5/7/2015 16:10

Sample ID: 15E0476-04

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:49	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 0:49	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	85.4	70-130	5/19/15 0:49
Toluene-d8	95.0	70-130	5/19/15 0:49
4-Bromofluorobenzene	92.2	70-130	5/19/15 0:49

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: ATC-1

Sampled: 5/7/2015 16:45

Sample ID: 15E0476-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/19/15 1:20	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: ATC-1

Sampled: 5/7/2015 16:45

Sample ID: 15E0476-05

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 1:20	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/19/15 1:20	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	83.7	70-130	5/19/15 1:20
Toluene-d8	94.6	70-130	5/19/15 1:20
4-Bromofluorobenzene	93.5	70-130	5/19/15 1:20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: Trip Blank

Sampled: 5/7/2015 16:45

Sample ID: 15E0476-06

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Bromomethane	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260C	5/18/15	5/18/15 22:17	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Carbon Disulfide	ND	4.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Springfield, Providence, RI

Sample Description:

Work Order: 15E0476

Date Received: 5/12/2015

Field Sample #: Trip Blank

Sampled: 5/7/2015 16:45

Sample ID: 15E0476-06

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,4-Dioxane	ND	50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Hexachlorobutadiene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 22:17	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Tetrahydrofuran	ND	10	µg/L	1	V-05	SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	5/18/15	5/18/15 22:17	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	86.7	70-130	5/18/15 22:17
Toluene-d8	95.1	70-130	5/18/15 22:17
4-Bromofluorobenzene	96.1	70-130	5/18/15 22:17

Sample Extraction Data**Prep Method: SW-846 5030B-SW-846 8260C**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
15E0476-01 [MW-8]	B121963	5	5.00	05/18/15
15E0476-02 [MW-6]	B121963	5	5.00	05/18/15
15E0476-03 [MW-7]	B121963	5	5.00	05/18/15
15E0476-04 [ATC-4]	B121963	5	5.00	05/18/15
15E0476-05 [ATC-1]	B121963	5	5.00	05/18/15
15E0476-06 [Trip Blank]	B121963	5	5.00	05/18/15

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B121963 - SW-846 5030B

Blank (B121963-BLK1)

Prepared & Analyzed: 05/18/15

Acetone	ND	50	µg/L							
Acrylonitrile	ND	5.0	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							L-04, V-05
2-Butanone (MEK)	ND	20	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							V-05
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							V-05
1,1-Dichloropropene	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	2.0	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B121963 - SW-846 5030B										
Blank (B121963-BLK1)										
Prepared & Analyzed: 05/18/15										
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							V-05
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	21.1		µg/L	25.0		84.5	70-130			
Surrogate: Toluene-d8	23.6		µg/L	25.0		94.3	70-130			
Surrogate: 4-Bromofluorobenzene	23.6		µg/L	25.0		94.2	70-130			
LCS (B121963-BS1)										
Prepared & Analyzed: 05/18/15										
Acetone	112	50	µg/L	100		112	70-160			†
Acrylonitrile	12.8	5.0	µg/L	10.0		128	70-130			
tert-Amyl Methyl Ether (TAME)	9.46	0.50	µg/L	10.0		94.6	70-130			
Benzene	9.68	1.0	µg/L	10.0		96.8	70-130			
Bromobenzene	10.3	1.0	µg/L	10.0		103	70-130			
Bromochloromethane	9.52	1.0	µg/L	10.0		95.2	70-130			
Bromodichloromethane	9.68	0.50	µg/L	10.0		96.8	70-130			
Bromoform	9.14	1.0	µg/L	10.0		91.4	70-130			
Bromomethane	2.89	2.0	µg/L	10.0		28.9 *	40-160			L-04, V-05 †
2-Butanone (MEK)	89.0	20	µg/L	100		89.0	40-160			†
tert-Butyl Alcohol (TBA)	109	20	µg/L	100		109	40-160			V-20 †
n-Butylbenzene	8.41	1.0	µg/L	10.0		84.1	70-130			
sec-Butylbenzene	10.9	1.0	µg/L	10.0		109	70-130			
tert-Butylbenzene	10.5	1.0	µg/L	10.0		105	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.99	0.50	µg/L	10.0		99.9	70-130			
Carbon Disulfide	10.0	4.0	µg/L	10.0		100	70-130			
Carbon Tetrachloride	9.43	5.0	µg/L	10.0		94.3	70-130			
Chlorobenzene	10.8	1.0	µg/L	10.0		108	70-130			
Chlorodibromomethane	9.73	0.50	µg/L	10.0		97.3	70-130			
Chloroethane	10.3	2.0	µg/L	10.0		103	70-130			
Chloroform	8.82	2.0	µg/L	10.0		88.2	70-130			
Chloromethane	7.30	2.0	µg/L	10.0		73.0	40-160			†
2-Chlorotoluene	10.7	1.0	µg/L	10.0		107	70-130			

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B121963 - SW-846 5030B										
LCS (B121963-BS1)										
Prepared & Analyzed: 05/18/15										
4-Chlorotoluene	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	7.86	5.0	µg/L	10.0		78.6	70-130			
1,2-Dibromoethane (EDB)	10.3	0.50	µg/L	10.0		103	70-130			
Dibromomethane	10.2	1.0	µg/L	10.0		102	70-130			
1,2-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130			
1,3-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130			
1,4-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
trans-1,4-Dichloro-2-butene	8.53	2.0	µg/L	10.0		85.3	70-130			
Dichlorodifluoromethane (Freon 12)	5.06	2.0	µg/L	10.0		50.6	40-160			V-05 †
1,1-Dichloroethane	9.30	1.0	µg/L	10.0		93.0	70-130			
1,2-Dichloroethane	9.83	1.0	µg/L	10.0		98.3	70-130			
1,1-Dichloroethylene	11.3	1.0	µg/L	10.0		113	70-130			
cis-1,2-Dichloroethylene	8.76	1.0	µg/L	10.0		87.6	70-130			
trans-1,2-Dichloroethylene	10.8	1.0	µg/L	10.0		108	70-130			
1,2-Dichloropropane	10.9	1.0	µg/L	10.0		109	70-130			
1,3-Dichloropropane	9.68	0.50	µg/L	10.0		96.8	70-130			
2,2-Dichloropropane	7.16	1.0	µg/L	10.0		71.6	40-130			V-05 †
1,1-Dichloropropene	10.2	2.0	µg/L	10.0		102	70-130			
cis-1,3-Dichloropropene	9.59	0.50	µg/L	10.0		95.9	70-130			
trans-1,3-Dichloropropene	10.2	0.50	µg/L	10.0		102	70-130			
Diethyl Ether	10.6	2.0	µg/L	10.0		106	70-130			
Diisopropyl Ether (DIPE)	9.68	0.50	µg/L	10.0		96.8	70-130			
1,4-Dioxane	159	50	µg/L	100		159 *	40-130			L-02, V-20 †
Ethylbenzene	11.2	1.0	µg/L	10.0		112	70-130			
Hexachlorobutadiene	9.46	2.0	µg/L	10.0		94.6	70-130			
2-Hexanone (MBK)	100	10	µg/L	100		100	70-160			†
Isopropylbenzene (Cumene)	11.8	1.0	µg/L	10.0		118	70-130			
p-Isopropyltoluene (p-Cymene)	11.1	1.0	µg/L	10.0		111	70-130			
Methyl tert-Butyl Ether (MTBE)	10.1	1.0	µg/L	10.0		101	70-130			
Methylene Chloride	11.5	5.0	µg/L	10.0		115	70-130			
4-Methyl-2-pentanone (MIBK)	112	10	µg/L	100		112	70-160			†
Naphthalene	5.88	2.0	µg/L	10.0		58.8	40-130			V-05 †
n-Propylbenzene	10.9	1.0	µg/L	10.0		109	70-130			
Styrene	10.9	1.0	µg/L	10.0		109	70-130			
1,1,1,2-Tetrachloroethane	10.6	1.0	µg/L	10.0		106	70-130			
1,1,2,2-Tetrachloroethane	8.95	0.50	µg/L	10.0		89.5	70-130			
Tetrachloroethylene	11.3	1.0	µg/L	10.0		113	70-130			
Tetrahydrofuran	5.67	10	µg/L	10.0		56.7 *	70-130			V-05, L-07
Toluene	10.3	1.0	µg/L	10.0		103	70-130			
1,2,3-Trichlorobenzene	7.03	5.0	µg/L	10.0		70.3	70-130			
1,2,4-Trichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
1,3,5-Trichlorobenzene	8.95	1.0	µg/L	10.0		89.5	70-130			
1,1,1-Trichloroethane	8.38	1.0	µg/L	10.0		83.8	70-130			
1,1,2-Trichloroethane	8.83	1.0	µg/L	10.0		88.3	70-130			
Trichloroethylene	9.74	1.0	µg/L	10.0		97.4	70-130			
Trichlorofluoromethane (Freon 11)	10.2	2.0	µg/L	10.0		102	70-130			
1,2,3-Trichloropropane	8.87	2.0	µg/L	10.0		88.7	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0	1.0	µg/L	10.0		110	70-130			
1,2,4-Trimethylbenzene	10.6	1.0	µg/L	10.0		106	70-130			
1,3,5-Trimethylbenzene	10.9	1.0	µg/L	10.0		109	70-130			
Vinyl Chloride	8.12	2.0	µg/L	10.0		81.2	40-160			†

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B121963 - SW-846 5030B										
LCS (B121963-BS1)										
Prepared & Analyzed: 05/18/15										
m+p Xylene	21.6	2.0	µg/L	20.0		108	70-130			
o-Xylene	10.6	1.0	µg/L	10.0		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	20.6		µg/L	25.0		82.5	70-130			
Surrogate: Toluene-d8	23.8		µg/L	25.0		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	25.2		µg/L	25.0		101	70-130			
LCS Dup (B121963-BSD1)										
Prepared & Analyzed: 05/18/15										
Acetone	112	50	µg/L	100		112	70-160	0.348	25	†
Acrylonitrile	11.0	5.0	µg/L	10.0		110	70-130	14.8	25	
tert-Amyl Methyl Ether (TAME)	9.33	0.50	µg/L	10.0		93.3	70-130	1.38	25	
Benzene	9.17	1.0	µg/L	10.0		91.7	70-130	5.41	25	
Bromobenzene	9.79	1.0	µg/L	10.0		97.9	70-130	4.98	25	
Bromochloromethane	9.32	1.0	µg/L	10.0		93.2	70-130	2.12	25	
Bromodichloromethane	9.39	0.50	µg/L	10.0		93.9	70-130	3.04	25	
Bromoform	8.40	1.0	µg/L	10.0		84.0	70-130	8.44	25	
Bromomethane	3.55	2.0	µg/L	10.0		35.5 *	40-160	20.5	25	L-04, V-05 †
2-Butanone (MEK)	86.7	20	µg/L	100		86.7	40-160	2.61	25	†
tert-Butyl Alcohol (TBA)	112	20	µg/L	100		112	40-160	1.93	25	V-20 †
n-Butylbenzene	8.27	1.0	µg/L	10.0		82.7	70-130	1.68	25	
sec-Butylbenzene	10.6	1.0	µg/L	10.0		106	70-130	3.17	25	
tert-Butylbenzene	10.2	1.0	µg/L	10.0		102	70-130	2.12	25	
tert-Butyl Ethyl Ether (TBEE)	9.72	0.50	µg/L	10.0		97.2	70-130	2.74	25	
Carbon Disulfide	8.93	4.0	µg/L	10.0		89.3	70-130	11.3	25	
Carbon Tetrachloride	8.75	5.0	µg/L	10.0		87.5	70-130	7.48	25	
Chlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	5.43	25	
Chlorodibromomethane	9.39	0.50	µg/L	10.0		93.9	70-130	3.56	25	
Chloroethane	9.01	2.0	µg/L	10.0		90.1	70-130	13.7	25	
Chloroform	8.23	2.0	µg/L	10.0		82.3	70-130	6.92	25	
Chloromethane	7.45	2.0	µg/L	10.0		74.5	40-160	2.03	25	†
2-Chlorotoluene	10.2	1.0	µg/L	10.0		102	70-130	4.80	25	
4-Chlorotoluene	9.81	1.0	µg/L	10.0		98.1	70-130	6.70	25	
1,2-Dibromo-3-chloropropane (DBCP)	8.41	5.0	µg/L	10.0		84.1	70-130	6.76	25	
1,2-Dibromoethane (EDB)	9.68	0.50	µg/L	10.0		96.8	70-130	5.82	25	
Dibromomethane	9.96	1.0	µg/L	10.0		99.6	70-130	2.87	25	
1,2-Dichlorobenzene	10.6	1.0	µg/L	10.0		106	70-130	0.189	25	
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	3.37	25	
1,4-Dichlorobenzene	9.86	1.0	µg/L	10.0		98.6	70-130	3.88	25	
trans-1,4-Dichloro-2-butene	8.85	2.0	µg/L	10.0		88.5	70-130	3.68	25	
Dichlorodifluoromethane (Freon 12)	5.50	2.0	µg/L	10.0		55.0	40-160	8.33	25	V-05 †
1,1-Dichloroethane	8.67	1.0	µg/L	10.0		86.7	70-130	7.01	25	
1,2-Dichloroethane	9.77	1.0	µg/L	10.0		97.7	70-130	0.612	25	
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	7.74	25	
cis-1,2-Dichloroethylene	8.38	1.0	µg/L	10.0		83.8	70-130	4.43	25	
trans-1,2-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	4.27	25	
1,2-Dichloropropane	10.7	1.0	µg/L	10.0		107	70-130	1.85	25	
1,3-Dichloropropane	9.52	0.50	µg/L	10.0		95.2	70-130	1.67	25	
2,2-Dichloropropane	6.43	1.0	µg/L	10.0		64.3	40-130	10.7	25	V-05 †
1,1-Dichloropropene	9.55	2.0	µg/L	10.0		95.5	70-130	6.88	25	
cis-1,3-Dichloropropene	9.42	0.50	µg/L	10.0		94.2	70-130	1.79	25	
trans-1,3-Dichloropropene	9.89	0.50	µg/L	10.0		98.9	70-130	2.79	25	
Diethyl Ether	10.6	2.0	µg/L	10.0		106	70-130	0.00	25	
Diisopropyl Ether (DIPE)	9.29	0.50	µg/L	10.0		92.9	70-130	4.11	25	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B121963 - SW-846 5030B										
LCS Dup (B121963-BSD1)										
					Prepared & Analyzed: 05/18/15					
1,4-Dioxane	189	50	µg/L	100		189 *	40-130	17.2	50	L-02, V-20 † ‡
Ethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	6.86	25	
Hexachlorobutadiene	8.76	2.0	µg/L	10.0		87.6	70-130	7.68	25	
2-Hexanone (MBK)	102	10	µg/L	100		102	70-160	1.18	25	†
Isopropylbenzene (Cumene)	10.8	1.0	µg/L	10.0		108	70-130	8.83	25	
p-Isopropyltoluene (p-Cymene)	11.0	1.0	µg/L	10.0		110	70-130	1.36	25	
Methyl tert-Butyl Ether (MTBE)	10.2	1.0	µg/L	10.0		102	70-130	0.787	25	
Methylene Chloride	11.1	5.0	µg/L	10.0		111	70-130	3.64	25	
4-Methyl-2-pentanone (MIBK)	110	10	µg/L	100		110	70-160	1.61	25	†
Naphthalene	5.93	2.0	µg/L	10.0		59.3	40-130	0.847	25	V-05 †
n-Propylbenzene	10.3	1.0	µg/L	10.0		103	70-130	5.58	25	
Styrene	10.3	1.0	µg/L	10.0		103	70-130	5.19	25	
1,1,1,2-Tetrachloroethane	10.3	1.0	µg/L	10.0		103	70-130	2.11	25	
1,1,2,2-Tetrachloroethane	8.38	0.50	µg/L	10.0		83.8	70-130	6.58	25	
Tetrachloroethylene	11.0	1.0	µg/L	10.0		110	70-130	3.32	25	
Tetrahydrofuran	7.29	10	µg/L	10.0		72.9	70-130	25.0	25	V-05
Toluene	9.80	1.0	µg/L	10.0		98.0	70-130	4.98	25	
1,2,3-Trichlorobenzene	7.26	5.0	µg/L	10.0		72.6	70-130	3.22	25	
1,2,4-Trichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	0.195	25	
1,3,5-Trichlorobenzene	8.66	1.0	µg/L	10.0		86.6	70-130	3.29	25	
1,1,1-Trichloroethane	7.85	1.0	µg/L	10.0		78.5	70-130	6.53	25	
1,1,2-Trichloroethane	9.19	1.0	µg/L	10.0		91.9	70-130	4.00	25	
Trichloroethylene	9.86	1.0	µg/L	10.0		98.6	70-130	1.22	25	
Trichlorofluoromethane (Freon 11)	9.50	2.0	µg/L	10.0		95.0	70-130	6.71	25	
1,2,3-Trichloropropane	8.85	2.0	µg/L	10.0		88.5	70-130	0.226	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5	1.0	µg/L	10.0		105	70-130	4.45	25	
1,2,4-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	1.52	25	
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	4.80	25	
Vinyl Chloride	7.17	2.0	µg/L	10.0		71.7	40-160	12.4	25	†
m+p Xylene	20.5	2.0	µg/L	20.0		103	70-130	5.13	25	
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130	3.84	25	
Surrogate: 1,2-Dichloroethane-d4	20.8		µg/L	25.0		83.0	70-130			
Surrogate: Toluene-d8	23.8		µg/L	25.0		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		µg/L	25.0		96.5	70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- L-02 Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
 - L-04 Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
 - L-07 Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
 - V-05 Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
 - V-20 Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Acetone	CT,NY,ME,NH,VA,NJ
Acrylonitrile	CT,NY,ME,NH,VA,NJ
tert-Amyl Methyl Ether (TAME)	NY,ME,NH,VA,NJ
Benzene	CT,NY,ME,NH,VA,NJ
Bromochloromethane	NY,ME,NH,VA,NJ
Bromodichloromethane	CT,NY,ME,NH,VA,NJ
Bromoform	CT,NY,ME,NH,VA,NJ
Bromomethane	CT,NY,ME,NH,VA,NJ
2-Butanone (MEK)	CT,NY,ME,NH,VA,NJ
tert-Butyl Alcohol (TBA)	NY,ME,NH,VA,NJ
n-Butylbenzene	NY,ME,VA,NJ
sec-Butylbenzene	NY,ME,VA,NJ
tert-Butylbenzene	NY,ME,VA,NJ
tert-Butyl Ethyl Ether (TBEE)	NY,ME,NH,VA,NJ
Carbon Disulfide	CT,NY,ME,NH,VA,NJ
Carbon Tetrachloride	CT,NY,ME,NH,VA,NJ
Chlorobenzene	CT,NY,ME,NH,VA,NJ
Chlorodibromomethane	CT,NY,ME,NH,VA,NJ
Chloroethane	CT,NY,ME,NH,VA,NJ
Chloroform	CT,NY,ME,NH,VA,NJ
Chloromethane	CT,NY,ME,NH,VA,NJ
2-Chlorotoluene	NY,ME,NH,VA,NJ
4-Chlorotoluene	NY,ME,NH,VA,NJ
Dibromomethane	NY,ME,NH,VA,NJ
1,2-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
1,3-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
1,4-Dichlorobenzene	CT,NY,ME,NH,VA,NJ
trans-1,4-Dichloro-2-butene	NY,ME,NH,VA,NJ
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA,NJ
1,1-Dichloroethane	CT,NY,ME,NH,VA,NJ
1,2-Dichloroethane	CT,NY,ME,NH,VA,NJ
1,1-Dichloroethylene	CT,NY,ME,NH,VA,NJ
cis-1,2-Dichloroethylene	NY,ME,NJ
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA,NJ
1,2-Dichloropropane	CT,NY,ME,NH,VA,NJ
1,3-Dichloropropane	NY,ME,VA,NJ
2,2-Dichloropropane	NY,ME,NH,VA,NJ
1,1-Dichloropropene	NY,ME,NH,VA,NJ
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA,NJ
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA,NJ
Diisopropyl Ether (DIPE)	NY,ME,NH,VA,NJ
Ethylbenzene	CT,NY,ME,NH,VA,NJ
Hexachlorobutadiene	CT,NY,ME,NH,VA,NJ
2-Hexanone (MBK)	CT,NY,ME,NH,VA,NJ
Isopropylbenzene (Cumene)	NY,ME,VA,NJ
p-Isopropyltoluene (p-Cymene)	CT,NY,ME,NH,VA,NJ
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA,NJ

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Methylene Chloride	CT,NY,ME,NH,VA,NJ
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA,NJ
Naphthalene	NY,ME,NH,VA,NJ
n-Propylbenzene	CT,NY,ME,NH,VA,NJ
Styrene	CT,NY,ME,NH,VA,NJ
1,1,1,2-Tetrachloroethane	CT,NY,ME,NH,VA,NJ
1,1,2,2-Tetrachloroethane	CT,NY,ME,NH,VA,NJ
Tetrachloroethylene	CT,NY,ME,NH,VA,NJ
Toluene	CT,NY,ME,NH,VA,NJ
1,2,3-Trichlorobenzene	NY,ME,NH,VA,NJ
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA,NJ
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,NY,ME,NH,VA,NJ
1,1,2-Trichloroethane	CT,NY,ME,NH,VA,NJ
Trichloroethylene	CT,NY,ME,NH,VA,NJ
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA,NJ
1,2,3-Trichloropropane	NY,ME,NH,VA,NJ
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY,VA,NJ
1,2,4-Trimethylbenzene	NY,ME,VA,NJ
1,3,5-Trimethylbenzene	NY,ME,VA,NJ
Vinyl Chloride	CT,NY,ME,NH,VA,NJ
m+p Xylene	CT,NY,ME,NH,VA
o-Xylene	CT,NY,ME,NH,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015



Phone: 413-525-2332
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 www.contestlabs.com

CHAIN OF CUSTODY RECORD

15E0476
 Rev 04.05.12

39 Spruce Street
 East longmeadow, MA 01028

Company Name: ARCADIS Telephone: 401-738-3887

Address: 300 Metro Center Blvd. Project # wk012152.0010

Attention: Donna Pallister Client PO# _____

Project Location: Springfield St., Providence, RI

Sampled By: Andrew Pasikas Email: anna.pallister@arcadis-us.com

Project Proposal Provided? (for billing purposes)
 YES NO proposal date

DATA DELIVERY (check all that apply)
 FAX EMAIL WEBSITE

Format: PDF EXCEL GIS
 OTHER

Con-Test Lab ID <small>(laboratory use only)</small>	Client Sample ID / Description	Collection		Composite	Grab	Matrix Conc Date
		Beginning Date/Time	Ending Date/Time			
<u>01</u>	<u>MW-8</u>	<u>5/7/15</u>	<u>1440</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>
<u>02</u>	<u>MW-6</u>	<u>5/7/15</u>	<u>1520</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>
<u>03</u>	<u>MW-7</u>	<u>5/7/15</u>	<u>1545</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>
<u>04</u>	<u>ATC-4</u>	<u>5/7/15</u>	<u>1610</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>
<u>05</u>	<u>ATC-1</u>	<u>5/7/15</u>	<u>1645</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>

Con-Test Lab ID	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	Matrix Conc Date	ANALYSIS REQUESTED	
							Field Filtered	Lab to Filter
<u>01</u>	<u>MW-8</u>	<u>5/7/15</u>	<u>1440</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>02</u>	<u>MW-6</u>	<u>5/7/15</u>	<u>1520</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>03</u>	<u>MW-7</u>	<u>5/7/15</u>	<u>1545</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>04</u>	<u>ATC-4</u>	<u>5/7/15</u>	<u>1610</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>	<input type="checkbox"/>	<input type="checkbox"/>
<u>05</u>	<u>ATC-1</u>	<u>5/7/15</u>	<u>1645</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>C</u>	<input type="checkbox"/>	<input type="checkbox"/>

Matrix Code:
 GW = groundwater
 WW = wastewater
 DW = drinking water
 A = air
 S = soil/solid
 SL = sludge
 O = other

Preservation:
 I = Iced
 H = HCL
 M = Methanol
 N = Nitric Acid
 S = Sulfuric Acid
 B = Sodium bisulfate
 X = Na hydroxide
 T = Na thiosulfate
 O = Other

Container Code:
 A = amber glass
 G = glass
 P = plastic
 ST = sterile
 V = vial
 S = summa can
 T = tedlar bag
 O = Other

Disinfectant:
 I = Iced
 H = HCL
 M = Methanol
 N = Nitric Acid
 S = Sulfuric Acid
 B = Sodium bisulfate
 X = Na hydroxide
 T = Na thiosulfate
 O = Other

Signature: _____ Date/Time: 5/7/15 1630

Signature: _____ Date/Time: 5-12-15 11:50

Signature: _____ Date/Time: 5-12-15 1440

Signature: _____ Date/Time: 5-18-15 4:47

Turnaround: 7-Day 10-Day Other 5RD

RUSH: 24-Hr 48-Hr 72-Hr 14-Day

Require lab approval:

Is your project MCP or RCP?
 MCP Form Required
 RCP Form Required
 MA State DW Form Required PWSID # _____

Accredited: **NELAC & AIHA-LAP, LLC**

WBE/DBE Certified

URNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
 East Longmeadow, MA. 01028
 P: 413-525-2332
 F: 413-525-6405
 www.contestlabs.com



Sample Receipt Checklist

CLIENT NAME: Arcadis RECEIVED BY: PB DATE: 5-12-15

- 1) Was the chain(s) of custody relinquished and signed? Yes No No CoC Included
- 2) Does the chain agree with the samples? Yes No
 If not, explain: _____
- 3) Are all the samples in good condition? Yes No
 If not, explain: _____

4) How were the samples received:
 On Ice Direct from Sampling Ambient In Cooler(s)

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 4.7

5) Are there Dissolved samples for the lab to filter? Yes No

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes No

Who was notified _____ Date _____ Time _____

7) Location where samples are stored:

log in

Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

8) Do all samples have the proper Acid pH: Yes No N/A

9) Do all samples have the proper Base pH: Yes No N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes No N/A

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Plastic Bag / Ziploc	
500 mL Plastic		SOC Kit	
250 mL plastic		Non-ConTest Container	
40 mL Vial - type listed below	<u>15</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl 15 # Methanol _____
 # Bisulfate _____ # DI Water _____
 # Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Login Sample Receipt Checklist
 (Rejection Criteria Listing - Using Sample Acceptance Policy)
 Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	NA T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?

Log-In Technician Initials: PB

Date/Time:

Date/Time: 5-12-15
14:40

May 19, 2015

Donna Pallister
Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886

Project Location: Springfield St, Providence
Client Job Number:
Project Number: WK012152.0010
Laboratory Work Order Number: 15E0522

Enclosed are results of analyses for samples received by the laboratory on May 12, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Lisa A. Worthington
Project Manager

Table of Contents

Sample Summary	3
Case Narrative	4
Sample Results	5
Sample Preparation Information	11
QC Data	12
Air Toxics by EPA Compendium Methods	12
B122086	12
Flag/Qualifier Summary	14
Certifications	15
Chain of Custody/Sample Receipt	17

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Arcadis US, Inc. - Warwick, RI
300 Metro Center Blvd., Suite 250
Warwick, RI 02886
ATTN: Donna Pallister

REPORT DATE: 5/19/2015

PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER: WK012152.0010

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15E0522

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Springfield St, Providence

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
ES#1	15E0522-01	Sub Slab		EPA TO-14A	
ES#2	15E0522-02	Sub Slab		EPA TO-14A	
MS Front	15E0522-03	Sub Slab		EPA TO-14A	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-14A

Qualifications:**A-09**

Holding times and stability of samples taken in tedlar bags have not been determined

Analyte & Samples(s) Qualified:

15E0522-01[ES#1], 15E0522-02[ES#2], 15E0522-03[MS Front]

L-01

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene**

B122086-BS1

1,2-Dichlorobenzene

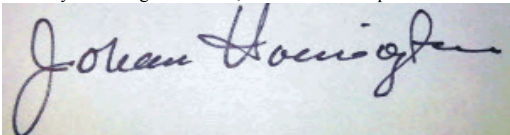
B122086-BS1

Hexachlorobutadiene

B122086-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Johanna K. Harrington

Manager, Laboratory Reporting

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: ES#1
Sample ID: 15E0522-01
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 12:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.15	0.10		0.49	0.32	2	5/16/15	5:41	TPH
Bromomethane	ND	0.10		ND	0.39	2	5/16/15	5:41	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	5/16/15	5:41	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	5/16/15	5:41	TPH
Chloroethane	ND	0.10		ND	0.26	2	5/16/15	5:41	TPH
Chloroform	0.17	0.10		0.85	0.49	2	5/16/15	5:41	TPH
Chloromethane	ND	0.20		ND	0.41	2	5/16/15	5:41	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	5/16/15	5:41	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	5:41	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	5:41	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	5:41	TPH
Dichlorodifluoromethane (Freon 12)	0.82	0.10		4.1	0.49	2	5/16/15	5:41	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	5/16/15	5:41	TPH
1,2-Dichloroethane	0.19	0.10		0.77	0.40	2	5/16/15	5:41	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	5:41	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	5:41	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	5/16/15	5:41	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	5:41	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	5:41	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.30	0.10		2.1	0.70	2	5/16/15	5:41	TPH
Ethylbenzene	0.57	0.10		2.5	0.43	2	5/16/15	5:41	TPH
Hexachlorobutadiene	ND	0.10		ND	1.1	2	5/16/15	5:41	TPH
Methylene Chloride	ND	1.0		ND	3.5	2	5/16/15	5:41	TPH
Styrene	6.5	0.10		28	0.43	2	5/16/15	5:41	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	5/16/15	5:41	TPH
Tetrachloroethylene	1.6	0.10		11	0.68	2	5/16/15	5:41	TPH
Toluene	11	0.10		41	0.38	2	5/16/15	5:41	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	5/16/15	5:41	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	5:41	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	5:41	TPH
Trichloroethylene	0.28	0.10		1.5	0.54	2	5/16/15	5:41	TPH
Trichlorofluoromethane (Freon 11)	0.47	0.10		2.6	0.56	2	5/16/15	5:41	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	5/16/15	5:41	TPH
1,2,4-Trimethylbenzene	0.35	0.10		1.7	0.49	2	5/16/15	5:41	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	5/16/15	5:41	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	5/16/15	5:41	TPH
m&p-Xylene	3.8	0.20		17	0.87	2	5/16/15	5:41	TPH

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: ES#1
Sample ID: 15E0522-01
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 12:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.80	0.10		3.5	0.43	2	5/16/15	5:41	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	99.8		70-130		5/16/15	5:41

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: ES#2
Sample ID: 15E0522-02
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 12:48

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.19	0.10		0.61	0.32	2	5/16/15	6:20	TPH
Bromomethane	ND	0.10		ND	0.39	2	5/16/15	6:20	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	5/16/15	6:20	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	5/16/15	6:20	TPH
Chloroethane	ND	0.10		ND	0.26	2	5/16/15	6:20	TPH
Chloroform	0.23	0.10		1.1	0.49	2	5/16/15	6:20	TPH
Chloromethane	ND	0.20		ND	0.41	2	5/16/15	6:20	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	5/16/15	6:20	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:20	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:20	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:20	TPH
Dichlorodifluoromethane (Freon 12)	0.61	0.10		3.0	0.49	2	5/16/15	6:20	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	5/16/15	6:20	TPH
1,2-Dichloroethane	ND	0.10		ND	0.40	2	5/16/15	6:20	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	6:20	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	6:20	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	5/16/15	6:20	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	6:20	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	6:20	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.16	0.10		1.1	0.70	2	5/16/15	6:20	TPH
Ethylbenzene	0.90	0.10		3.9	0.43	2	5/16/15	6:20	TPH
Hexachlorobutadiene	ND	0.10		ND	1.1	2	5/16/15	6:20	TPH
Methylene Chloride	ND	1.0		ND	3.5	2	5/16/15	6:20	TPH
Styrene	7.9	0.10		34	0.43	2	5/16/15	6:20	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	5/16/15	6:20	TPH
Tetrachloroethylene	0.55	0.10		3.7	0.68	2	5/16/15	6:20	TPH
Toluene	14	0.10		53	0.38	2	5/16/15	6:20	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	5/16/15	6:20	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	6:20	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	6:20	TPH
Trichloroethylene	ND	0.10		ND	0.54	2	5/16/15	6:20	TPH
Trichlorofluoromethane (Freon 11)	0.80	0.10		4.5	0.56	2	5/16/15	6:20	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	5/16/15	6:20	TPH
1,2,4-Trimethylbenzene	0.47	0.10		2.3	0.49	2	5/16/15	6:20	TPH
1,3,5-Trimethylbenzene	0.15	0.10		0.75	0.49	2	5/16/15	6:20	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	5/16/15	6:20	TPH
m&p-Xylene	5.8	0.20		25	0.87	2	5/16/15	6:20	TPH

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: ES#2
Sample ID: 15E0522-02
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 12:48

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	1.2	0.10		5.4	0.43	2	5/16/15	6:20	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	96.6		70-130		5/16/15	6:20

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: MS Front
Sample ID: 15E0522-03
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 13:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
Benzene	0.13	0.10		0.43	0.32	2	5/16/15	6:58	TPH
Bromomethane	ND	0.10		ND	0.39	2	5/16/15	6:58	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	2	5/16/15	6:58	TPH
Chlorobenzene	ND	0.10		ND	0.46	2	5/16/15	6:58	TPH
Chloroethane	ND	0.10		ND	0.26	2	5/16/15	6:58	TPH
Chloroform	ND	0.10		ND	0.49	2	5/16/15	6:58	TPH
Chloromethane	0.28	0.20		0.57	0.41	2	5/16/15	6:58	TPH
1,2-Dibromoethane (EDB)	ND	0.10		ND	0.77	2	5/16/15	6:58	TPH
1,2-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:58	TPH
1,3-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:58	TPH
1,4-Dichlorobenzene	ND	0.10		ND	0.60	2	5/16/15	6:58	TPH
Dichlorodifluoromethane (Freon 12)	0.61	0.10		3.0	0.49	2	5/16/15	6:58	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	2	5/16/15	6:58	TPH
1,2-Dichloroethane	0.21	0.10		0.83	0.40	2	5/16/15	6:58	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	6:58	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	2	5/16/15	6:58	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	2	5/16/15	6:58	TPH
cis-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	6:58	TPH
trans-1,3-Dichloropropene	ND	0.10		ND	0.45	2	5/16/15	6:58	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.12	0.10		0.82	0.70	2	5/16/15	6:58	TPH
Ethylbenzene	0.64	0.10		2.8	0.43	2	5/16/15	6:58	TPH
Hexachlorobutadiene	ND	0.10		ND	1.1	2	5/16/15	6:58	TPH
Methylene Chloride	ND	1.0		ND	3.5	2	5/16/15	6:58	TPH
Styrene	7.1	0.10		30	0.43	2	5/16/15	6:58	TPH
1,1,2,2-Tetrachloroethane	ND	0.10		ND	0.69	2	5/16/15	6:58	TPH
Tetrachloroethylene	2.2	0.10		15	0.68	2	5/16/15	6:58	TPH
Toluene	12	0.10		46	0.38	2	5/16/15	6:58	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74	2	5/16/15	6:58	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	6:58	TPH
1,1,2-Trichloroethane	ND	0.10		ND	0.55	2	5/16/15	6:58	TPH
Trichloroethylene	ND	0.10		ND	0.54	2	5/16/15	6:58	TPH
Trichlorofluoromethane (Freon 11)	0.49	0.10		2.7	0.56	2	5/16/15	6:58	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10		ND	0.77	2	5/16/15	6:58	TPH
1,2,4-Trimethylbenzene	0.38	0.10		1.9	0.49	2	5/16/15	6:58	TPH
1,3,5-Trimethylbenzene	ND	0.10		ND	0.49	2	5/16/15	6:58	TPH
Vinyl Chloride	ND	0.10		ND	0.26	2	5/16/15	6:58	TPH
m&p-Xylene	4.2	0.20		18	0.87	2	5/16/15	6:58	TPH

ANALYTICAL RESULTS

Project Location: Springfield St, Providence
 Date Received: 5/12/2015
Field Sample #: MS Front
Sample ID: 15E0522-03
 Sample Matrix: Sub Slab
 Sampled: 5/11/2015 13:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID:
 Canister Size:
 Flow Controller ID:
 Sample Type:

Work Order: 15E0522
 Initial Vacuum(in Hg):
 Final Vacuum(in Hg):
 Receipt Vacuum(in Hg):
 Flow Controller Type:
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-14A

Sample Flags: A-09

Analyte	ppbv		Flag/Qual	ug/m3		Dilution	Date/Time		Analyst
	Results	RL		Results	RL		Analyzed		
o-Xylene	0.84	0.10		3.6	0.43	2	5/16/15	6:58	TPH

Surrogates	% Recovery		% REC Limits		Date/Time	
4-Bromofluorobenzene (1)	98.5		70-130		5/16/15	6:58

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-14A

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
15E0522-01 [ES#1]	B122086	1	1	N/A	1000	400	200	05/15/15
15E0522-02 [ES#2]	B122086	1	1	N/A	1000	400	200	05/15/15
15E0522-03 [MS Front]	B122086	1	1	N/A	1000	400	200	05/15/15

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	%REC	Limits	RPD	Limit	
Batch B122086 - TO-15 Prep											
Blank (B122086-BLK1)											
						Prepared & Analyzed: 05/15/15					
Benzene	ND	0.025									
Bromomethane	ND	0.025									
Carbon Tetrachloride	ND	0.025									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.025									
Chloromethane	ND	0.050									
1,2-Dibromoethane (EDB)	ND	0.025									
1,2-Dichlorobenzene	ND	0.025									
1,3-Dichlorobenzene	ND	0.025									
1,4-Dichlorobenzene	ND	0.025									
Dichlorodifluoromethane (Freon 12)	ND	0.025									
1,1-Dichloroethane	ND	0.025									
1,2-Dichloroethane	ND	0.025									
1,1-Dichloroethylene	ND	0.025									
cis-1,2-Dichloroethylene	ND	0.025									
1,2-Dichloropropane	ND	0.025									
cis-1,3-Dichloropropene	ND	0.025									
trans-1,3-Dichloropropene	ND	0.025									
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.025									
Ethylbenzene	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Methylene Chloride	ND	0.25									
Styrene	ND	0.025									
1,1,1,2-Tetrachloroethane	ND	0.025									
Tetrachloroethylene	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.025									
1,1,1-Trichloroethane	ND	0.025									
1,1,2-Trichloroethane	ND	0.025									
Trichloroethylene	ND	0.025									
Trichlorofluoromethane (Freon 11)	ND	0.025									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
Surrogate: 4-Bromofluorobenzene (1)	7.34				8.00		91.7	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B122086 - TO-15 Prep											
LCS (B122086-BS1)											
						Prepared & Analyzed: 05/15/15					
Benzene	4.95				5.00		98.9	70-130			
Bromomethane	4.49				5.00		89.8	70-130			
Carbon Tetrachloride	6.06				5.00		121	70-130			
Chlorobenzene	5.62				5.00		112	70-130			
Chloroethane	5.57				5.00		111	70-130			
Chloroform	5.86				5.00		117	70-130			
Chloromethane	4.40				5.00		88.0	70-130			
1,2-Dibromoethane (EDB)	5.88				5.00		118	70-130			
1,2-Dichlorobenzene	6.66				5.00		133 *	70-130			L-01
1,3-Dichlorobenzene	6.32				5.00		126	70-130			
1,4-Dichlorobenzene	6.28				5.00		126	70-130			
Dichlorodifluoromethane (Freon 12)	5.78				5.00		116	70-130			
1,1-Dichloroethane	5.63				5.00		113	70-130			
1,2-Dichloroethane	6.05				5.00		121	70-130			
1,1-Dichloroethylene	5.84				5.00		117	70-130			
cis-1,2-Dichloroethylene	5.76				5.00		115	70-130			
1,2-Dichloropropane	5.38				5.00		108	70-130			
cis-1,3-Dichloropropene	5.92				5.00		118	70-130			
trans-1,3-Dichloropropene	5.66				5.00		113	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.41				5.00		88.2	70-130			
Ethylbenzene	5.72				5.00		114	70-130			
Hexachlorobutadiene	6.91				5.00		138 *	70-130			L-01
Methylene Chloride	5.18				5.00		104	70-130			
Styrene	5.21				5.00		104	70-130			
1,1,2,2-Tetrachloroethane	6.33				5.00		127	70-130			
Tetrachloroethylene	5.48				5.00		110	70-130			
Toluene	5.62				5.00		112	70-130			
1,2,4-Trichlorobenzene	6.74				5.00		135 *	70-130			L-01
1,1,1-Trichloroethane	5.61				5.00		112	70-130			
1,1,2-Trichloroethane	5.75				5.00		115	70-130			
Trichloroethylene	5.42				5.00		108	70-130			
Trichlorofluoromethane (Freon 11)	5.97				5.00		119	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	6.09				5.00		122	70-130			
1,2,4-Trimethylbenzene	6.27				5.00		125	70-130			
1,3,5-Trimethylbenzene	6.08				5.00		122	70-130			
Vinyl Chloride	4.60				5.00		92.0	70-130			
m&p-Xylene	12.6				10.0		126	70-130			
o-Xylene	5.72				5.00		114	70-130			
Surrogate: 4-Bromofluorobenzene (1)	7.76				8.00		97.0	70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
No results have been blank subtracted unless specified in the case narrative section.
- A-09 Holding times and stability of samples taken in tedlar bags have not been determined
- L-01 Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-14A in Air</i>	
Benzene	AIHA,FL,NY
Bromomethane	AIHA,FL,NY
Carbon Tetrachloride	AIHA,FL,NY
Chlorobenzene	AIHA,FL,NY
Chloroethane	AIHA,FL,NY
Chloroform	AIHA,FL,NY
Chloromethane	AIHA,FL,NY
1,2-Dibromoethane (EDB)	NY
1,2-Dichlorobenzene	AIHA,FL,NY
1,3-Dichlorobenzene	AIHA,FL,NY
1,4-Dichlorobenzene	AIHA,FL,NY
Dichlorodifluoromethane (Freon 12)	AIHA,FL,NY
1,1-Dichloroethane	AIHA,FL,NY
1,2-Dichloroethane	AIHA,FL,NY
1,1-Dichloroethylene	AIHA,FL,NY
cis-1,2-Dichloroethylene	AIHA,FL,NY
1,2-Dichloropropane	AIHA,FL,NY
cis-1,3-Dichloropropene	AIHA,FL,NY
trans-1,3-Dichloropropene	NY
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,FL,NY
Ethylbenzene	AIHA,FL,NY
Hexachlorobutadiene	AIHA,FL,NY
Methylene Chloride	AIHA,FL,NY
Styrene	AIHA,FL,NY
1,1,2,2-Tetrachloroethane	AIHA,FL,NY
Tetrachloroethylene	AIHA,FL,NY
Toluene	AIHA,FL,NY
1,2,4-Trichlorobenzene	AIHA,FL,NY
1,1,1-Trichloroethane	AIHA,FL,NY
1,1,2-Trichloroethane	AIHA,FL,NY
Trichloroethylene	AIHA,FL,NY
Trichlorofluoromethane (Freon 11)	AIHA,FL,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY
1,2,4-Trimethylbenzene	AIHA,FL,NY
1,3,5-Trimethylbenzene	AIHA,FL,NY
Vinyl Chloride	AIHA,FL,NY
m&p-Xylene	AIHA,FL,NY
o-Xylene	AIHA,FL,NY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

Login Sample Receipt Checklist(Rejection Criteria Listing - Using Sample Acceptance Policy)Any False statement will be brought to the attention of Client

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	<u>T/F/NA</u>		
1) The coolers'/boxes' custody seal, if present, is intact.	NO		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	NA		
4) Cooler Temperature is acceptable.	NA		
5) Cooler Temperature is recorded.	NA		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) Samples are received within Holding Time.	T		
10) Sample containers have legible labels.	T		
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T		
12) Sample collection date/times are provided.	T		
13) Appropriate sample/media containers are used.	T		
14) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
15) Trip blanks provided if applicable.	NA		

Doc #278 Rev. 5 October 2014

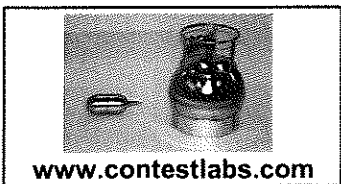
Who notified of False statements?

Login Technician Initials: PB

Date/Time:

Date/Time: 5-12-15

14:40



39 Spruce St.
 East Longmeadow, MA.
 01028
 P: 413-525-2332
 F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME: Arcadis RECEIVED BY: PB DATE: 5-12-15

- 1) Was the chain(s) of custody relinquished and signed? Yes No
- 2) Does the chain agree with the samples? Yes No
 If not, explain:
- 3) Are all the samples in good condition? Yes No
 If not, explain:
- 4) Are there any samples "On Hold"? Yes No Stored where:
- 5) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
 Who was notified _____ Date _____ Time _____

6) Location where samples are stored:
 Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? _____

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)		
Tedlar Bags	3	
TO-17 Tubes		
Regulators		
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009)		
(TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

Unused Regulators:

- 1) Was all media (used & unused) checked into the WASP?
- 2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

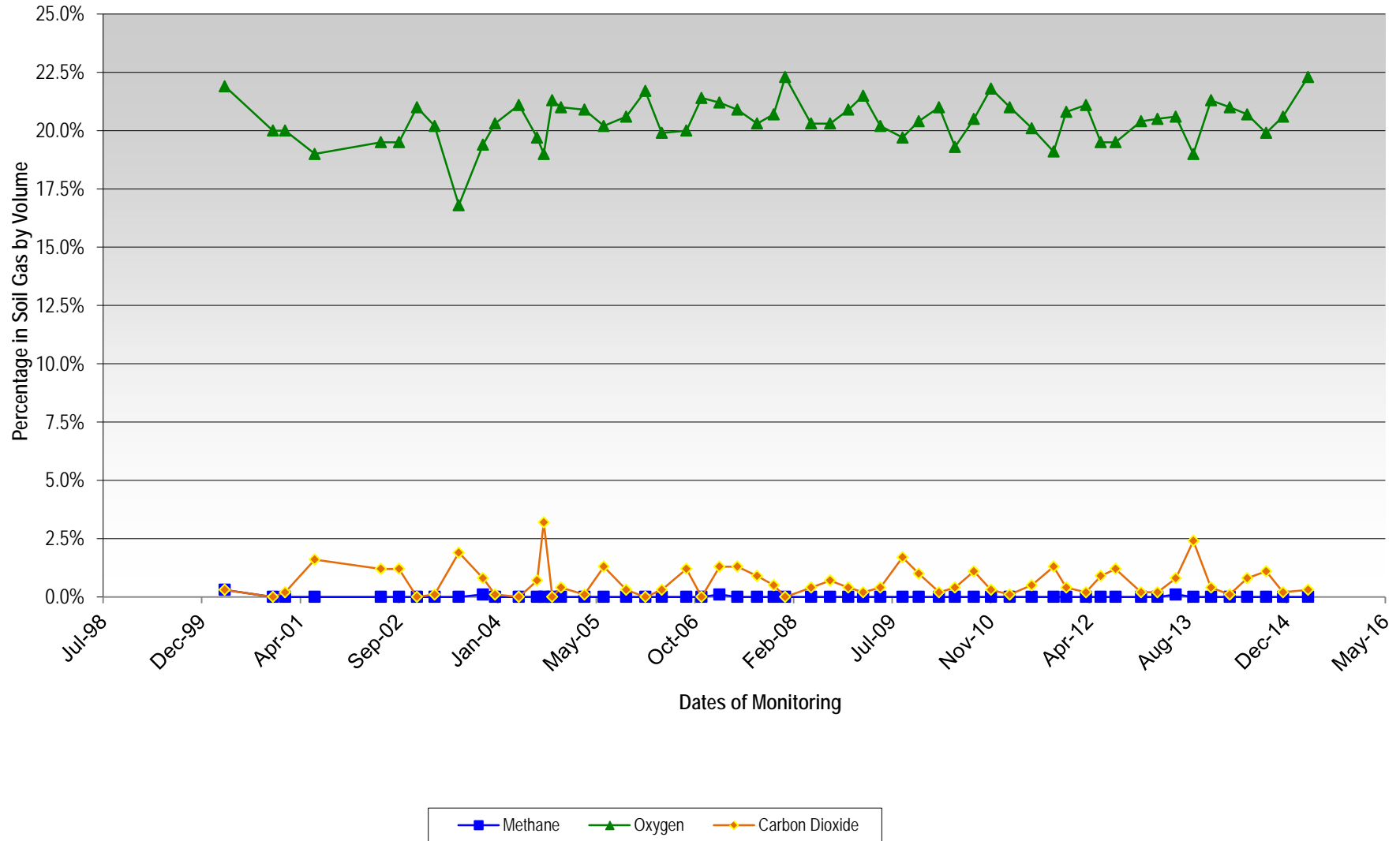
Laboratory Comments:



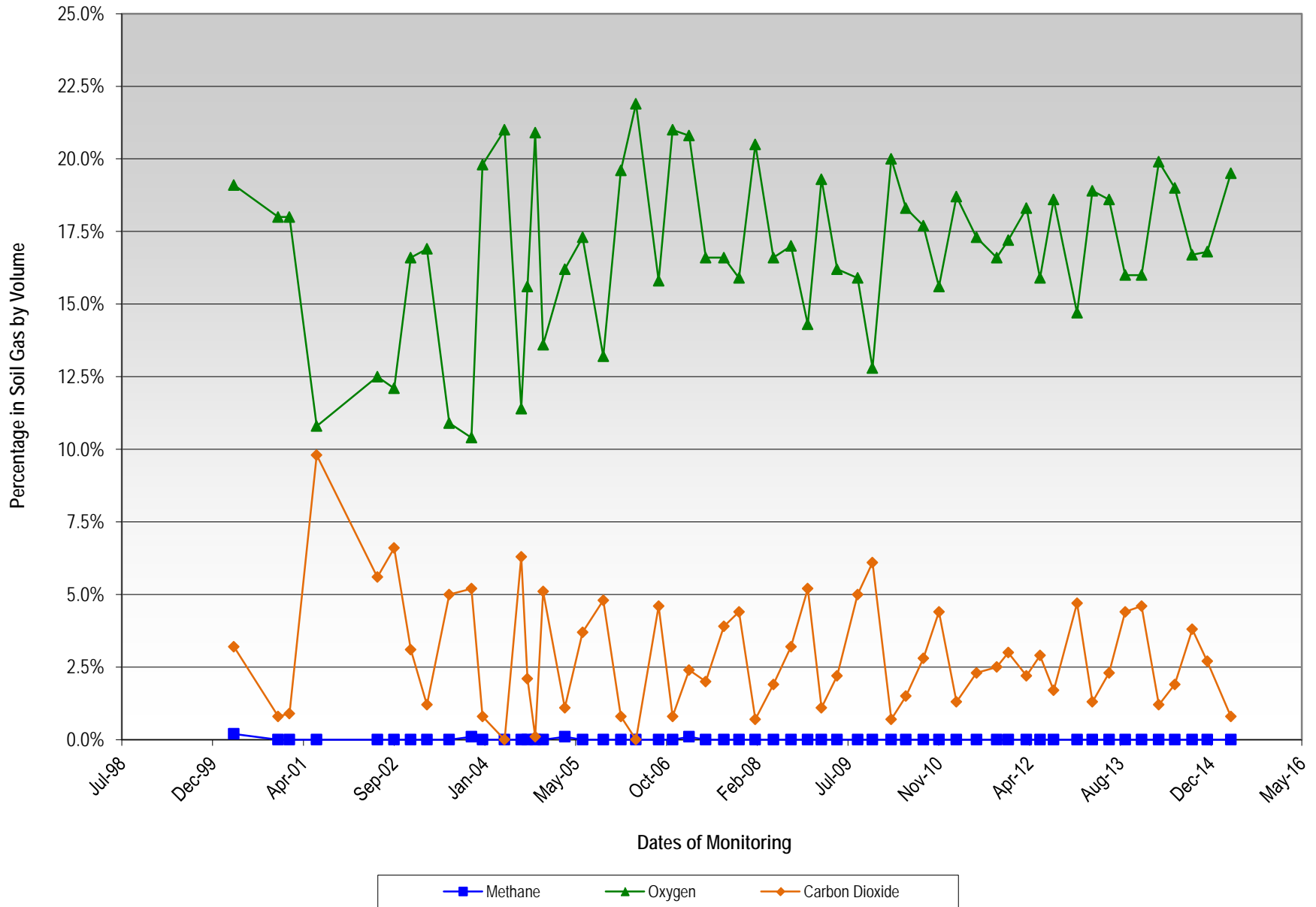
Attachment C

Soil Gas Parameter
Graphs

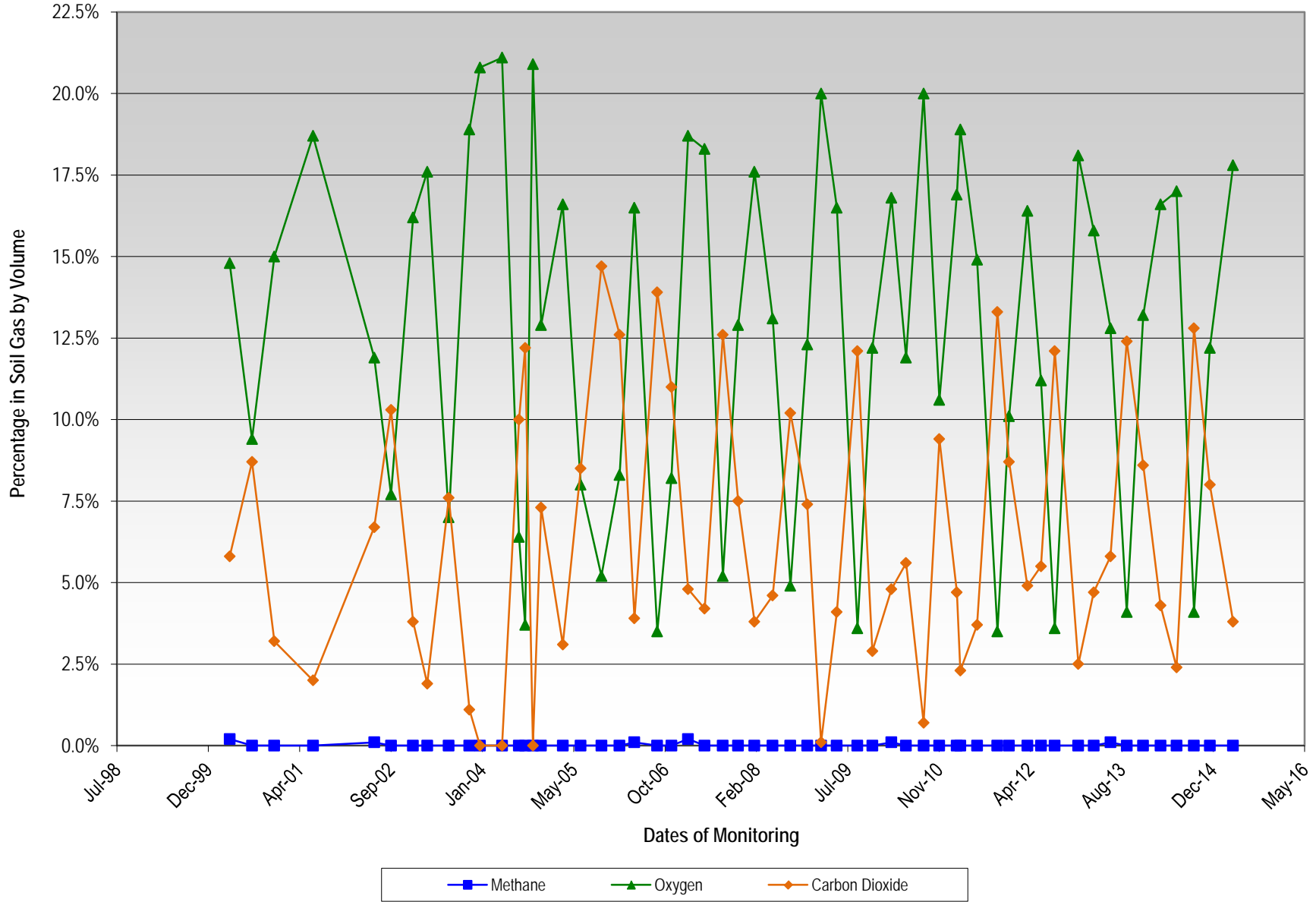
Soil Gas Well EPL1
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



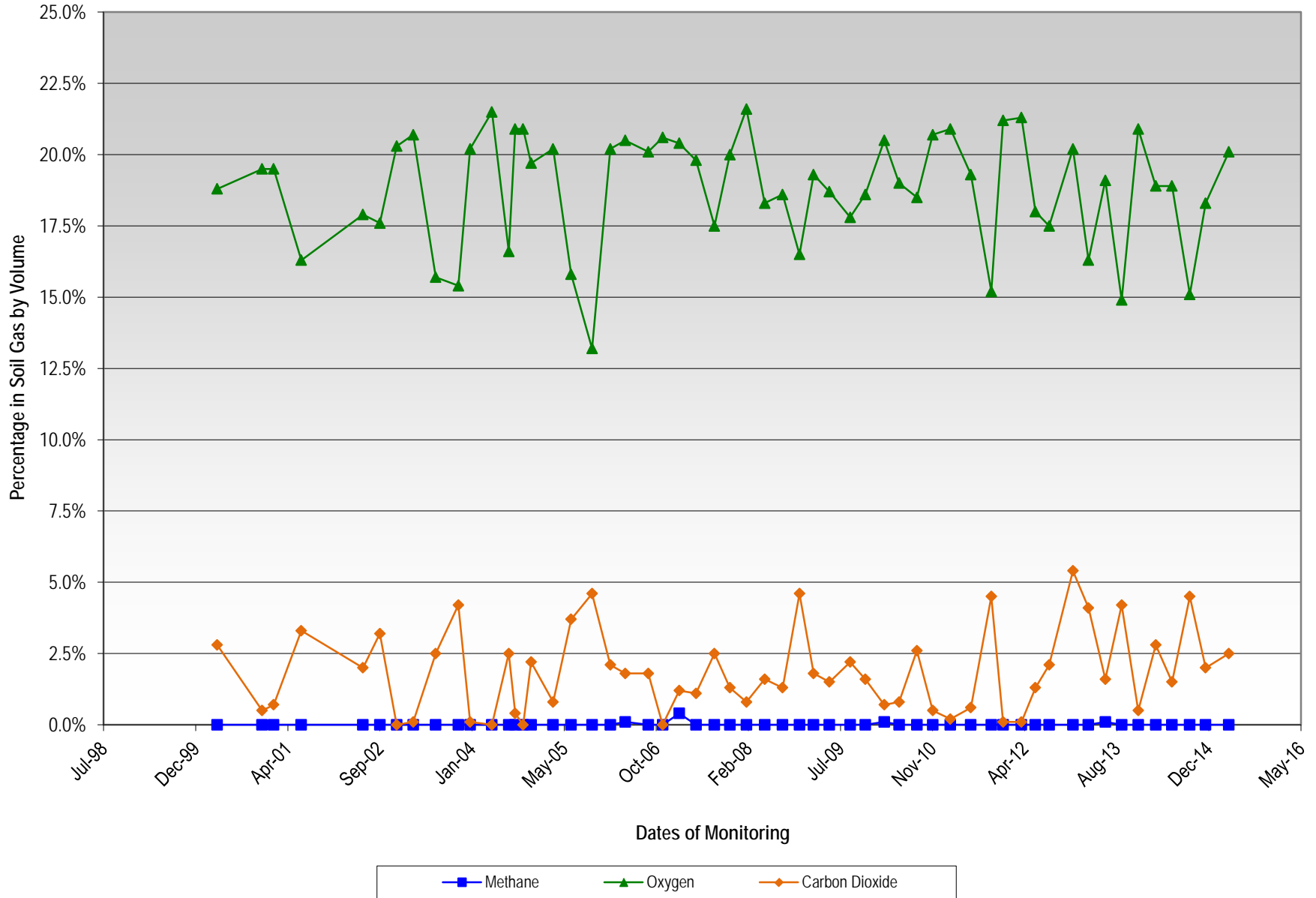
Soil Gas Well EPL4
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



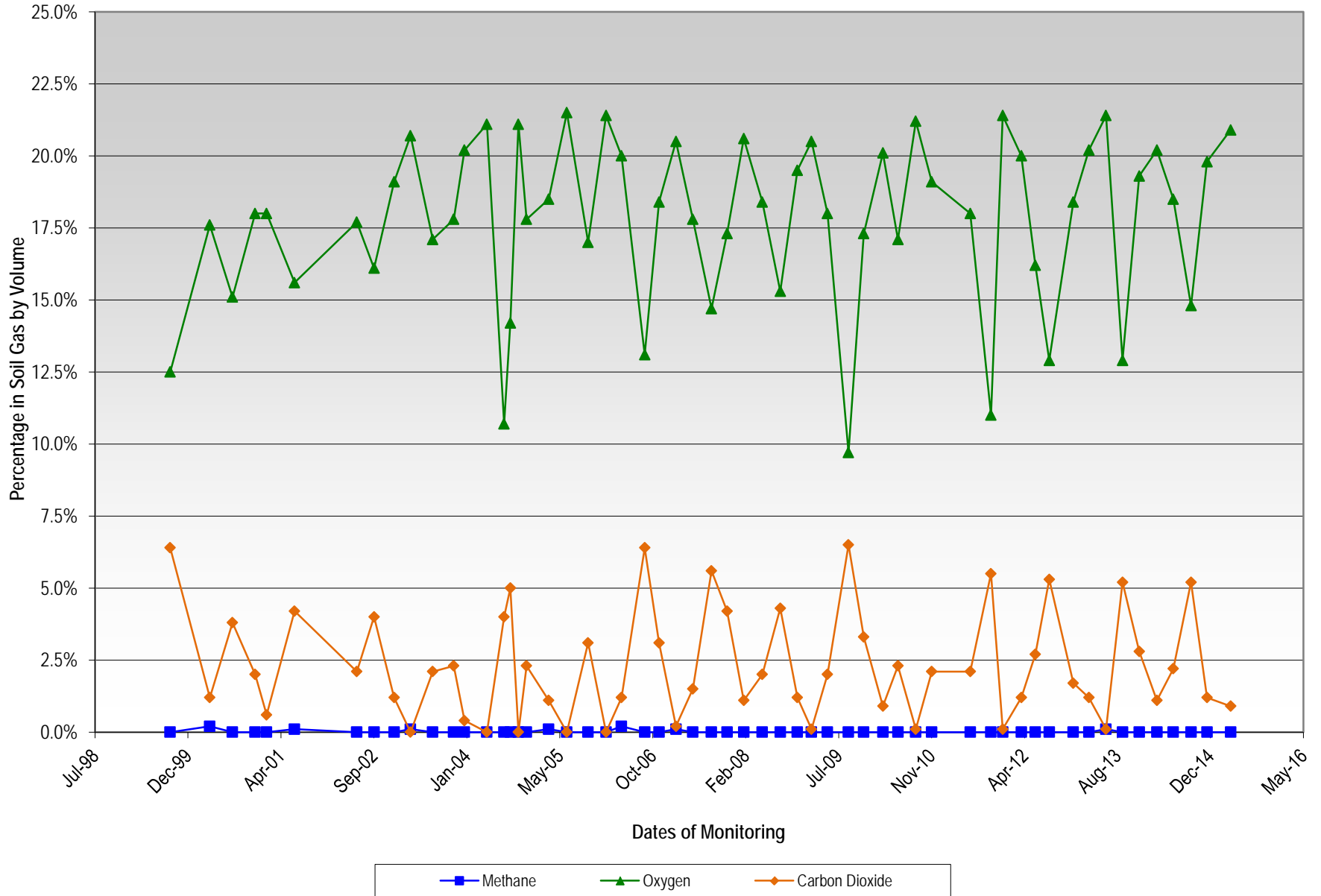
Soil Gas Well MPL5
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



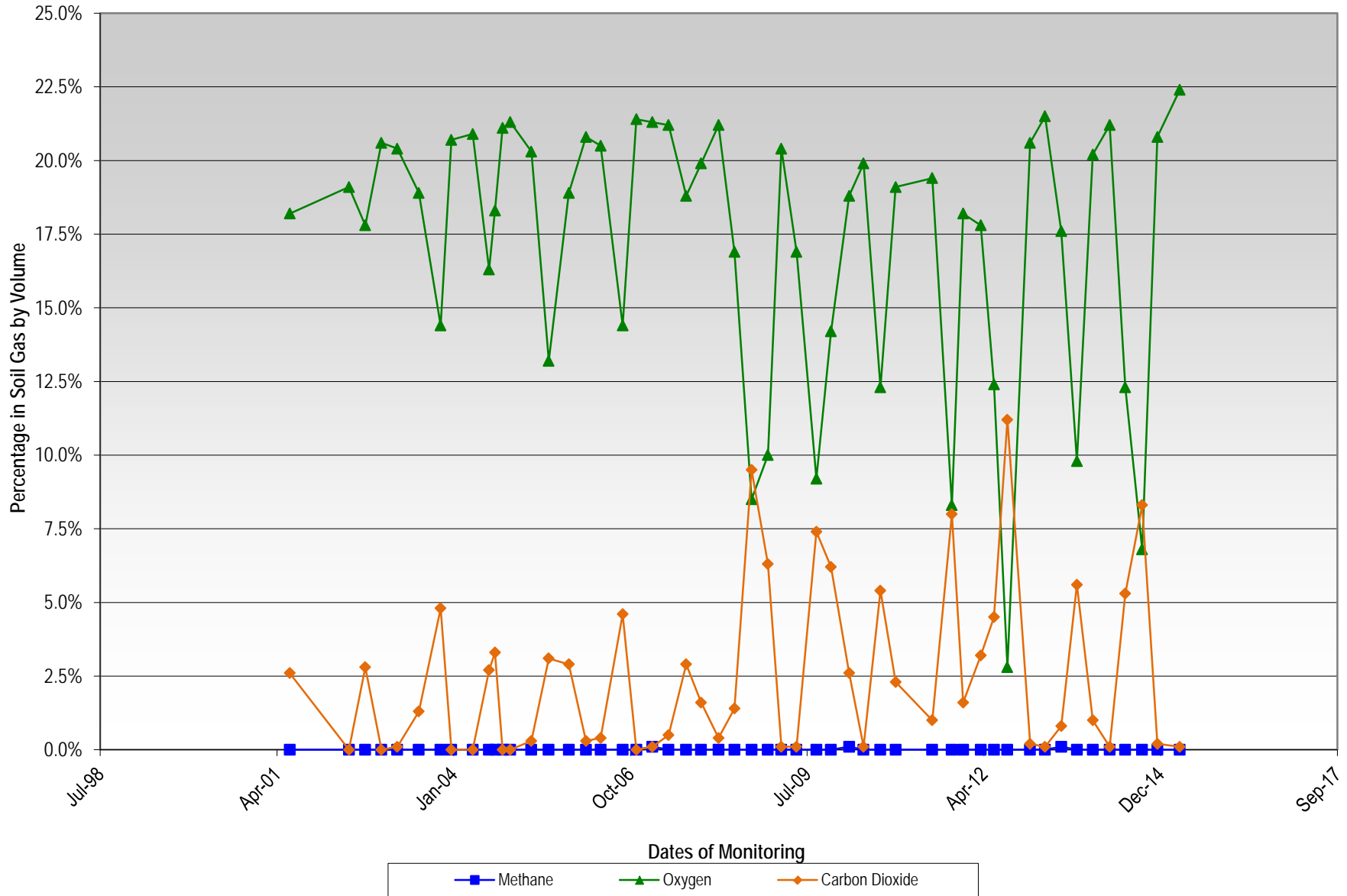
Soil Gas Well MG2
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



Soil Gas Well WB1
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



Soil Gas Well WB15
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



Soil Gas MPL 7
 Fluctuation in Methane, Oxygen, Carbon Dioxide Percentages over Time
 Springfield Street School Complex
 Providence, Rhode Island

