

**QUARTERLY MONITORING REPORT
Springfield Street School Complex
Providence, Rhode Island
August 2008 Monitoring Round**

Project No. 081-12152-05

Prepared for
Providence School Department
797 Westminster Street
Providence, RI 02903

Prepared by
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September 9, 2008

081-12152-05

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

Subject: Quarterly Monitoring for Springfield Street School Complex, 50 Springfield Street,
Providence, RI – August 2008 Monitoring Round

Dear Mr. Crawford:

Quarterly monitoring for soil gas, indoor air and system monitoring was conducted during the week of August 25, 2008. 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.

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

COVER MONITORING

LFR conducted a visual survey of the site on August 28, 2008 for evidence of significant soil cover erosion, or for any areas where the orange snow fencing indicator barrier was visible. LFR did not observe any areas where the orange indicator barrier was visible during this monitoring event. Some areas with small holes or poor grass cover were observed. These areas are being repaired by the Providence School Department and a report on the repairs will be submitted under separate cover.

SUB-SLAB VENTILATION SYSTEM

The sub-slab ventilation system was inspected by LFR during the quarterly monitoring on August 28, 2008. All other blowers were operating normally.

Influent and effluent air from the two blowers at the elementary school and the two blowers at the middle school was monitored. Samples of influent and effluent gas were collected in Tedlar bags at each location and screened for methane, carbon dioxide, carbon monoxide, and hydrogen sulfide using a Landtec GEM2000 Plus, and for volatile organic compounds (VOC) using a MiniRae 2000. Results are provided in Table 1.

Methane, hydrogen sulfide, carbon monoxide and organic vapor concentrations in the subslab ventilation system samples were all measured as zero during this monitoring event. Carbon dioxide readings at the elementary school ranged from 0.1 to 0.5 percent, and carbon dioxide readings at the middle school ranged from 0.1 to 0.3 percent.

INDOOR AIR MONITORING

Indoor air monitoring was conducted on August 28, 2008 using a Landtec Gem 2000 Plus landfill gas monitor (methane), a RAE 4-gas meter (hydrogen sulfide, oxygen), a Mini Rae photoionization detector (organic vapors), and a Fluke 975 Airmeter (carbon dioxide, carbon monoxide). Both schools were occupied at the time of the monitoring. Results of monitoring are provided in the Table 2. Methane, carbon monoxide, hydrogen sulfide, and organic vapors were not detected during the indoor air monitoring.

Carbon dioxide measurements were made with a Fluke 975 Airmeter indoor air quality meter which provides a lower detection limit than the Landtec Gem 2000 plus which has been used to measure carbon dioxide concentrations in the past. The Fluke 975 has a range of 0 to 5,000 ppm, with a resolution of 1 ppm. The Landtec Gem 2000 Plus has a range of 0 to 100 percent, with a resolution of 0.1 percent (1000 ppm).

Carbon dioxide concentrations ranged from 542 to 854 ppm in the elementary school, and from 543 to 743 ppm at the middle school. The maximum concentration detected at the elementary school was measured in the cafeteria, which was fully occupied at the time the measurement was made. All concentrations were well below the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 5,000 ppm for carbon dioxide.

Carbon dioxide is a colorless, odorless gas which is a trace constituent of our atmosphere. It is emitted by people and other mammals during respiration, by combustion of fossil fuels, and through many other natural and manmade sources. The US Department of Energy's Carbon Dioxide Information Analysis Center (CDIAC) reports that the average concentration of carbon dioxide in the atmosphere is 377 ppm. The actual concentrations are expected to vary locally based on the proximity of carbon dioxide sources to the measuring site, meteorological conditions, and other factors. The concentration of carbon dioxide measured in outdoor air in the Middle School parking lot on August 28, 2008 was 412 ppm.

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 affects. 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 concentrations measured inside the site buildings were below these levels.

The control panels for the methane monitors at both schools were inspected on August 28, 2008. The methane monitor control panels had stickers that indicated the monitors were last calibrated by Diamond Technical Services personnel on August 21, 2008.

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

Three of five groundwater monitoring wells were sampled by LFR on August 26, 2008. Two monitoring wells, ATC-2 and ATC-3, were not able to be sampled because they were dry or obstructed on the day of sampling. Prior to sampling, the depth to water was gauged, and a volume of water equivalent to approximately three well volumes was removed from each well. Depth to groundwater ranged from 14.30 to 18.76 feet below the ground surface. 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 3.

Laboratory analytical results indicated that trace concentrations of methyl tertiary-butyl ether (MTBE) were detected in ATC-1. Trace concentrations of chlorobenzene and 1,4-dichlorobenzene were detected in ATC-4. The detected concentrations are significantly below respective RIDEM GB Groundwater Objectives. No other target analytes were detected in the three groundwater samples.

SOIL GAS MONITORING

Soil gas monitoring was conducted at 28 locations on August 26, 2008. 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 & Extraction Monitor and a MiniRae Photoionization Detector (PID).

Air samples were also collected in Tedlar bags from wells WB-2 and MPL-6. The Tedlar bags were submitted to Con-test Analytical Laboratory for analysis for VOC via EPA method TO-14.

Soil Gas Field Monitoring Results

Soil gas samples were screened for methane, carbon monoxide, hydrogen sulfide, carbon dioxide, oxygen, and total VOCs. Soil gas survey results are provided in Table 4.

Methane and hydrogen sulfide were not detected in any of the soil gas wells during this round of sampling. Carbon monoxide was detected at concentrations below the action level in 18 wells.

Carbon dioxide was detected at 22 of 28 locations with detectable concentrations ranging from 0.1% to 11.8%. The carbon dioxide Remedial Action Work Plan Action Level is 0.1%, and 22 readings exceeded the action level. 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. Graphs presenting carbon dioxide, oxygen, and methane concentrations over time for seven representative wells are presented in Attachment C. The maximum concentration of carbon dioxide detected during this round of monitoring was 11.8%, compared with a maximum detected concentration in May of 2008 of 8.6%. The highest concentrations of carbon dioxide were found in wells MPL-6 and MPL-2, located on the northern end of the property adjacent to the parking lot. Carbon dioxide concentrations are expected to be higher here due to the heat generated by the sun on the pavement, and the pavement acting as a barrier to exchange of soil gas with the atmosphere.

Concentrations detected during this round of monitoring appear to be consistent with the patterns of higher carbon dioxide concentrations in the summer and fall, and lower carbon dioxide concentrations in the winter and spring.

Soil Gas Laboratory Results

Soil gas samples were collected from soil gas wells MPL-6 and WB-2 in Tedlar bags and submitted to Con-Test Analytical Laboratories for analysis by method TO-14. Results of the analysis are summarized in Table 5, and the laboratory report is provided in Attachment B. The results of analysis were typical of the concentrations and compounds which have been detected in previous monitoring events.

The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) are provided in Table 5 for comparison purposes even though they are not 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.

CONCLUSIONS

Methane, carbon monoxide, hydrogen sulfide and organic vapor concentrations did not exceed RAWP action levels in any soil gas samples, indoor air or subslab ventilation system samples. Carbon dioxide concentrations exceeded the action level at some locations. 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.

Inspection of the cap did not reveal any evidence of exposure of the orange barrier or of breaches of the cap that would allow users of the Site to be exposed to the underlying capped soils.

This report is subject to the limitations contained in Attachment A.

If you have any questions or require any additional information, please contact the undersigned at 401-738-3887.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Donna Holden Pallister'.

Donna Holden Pallister, P.E., L.S.P.
Senior Engineer

A handwritten signature in blue ink, appearing to read 'Christopher B. Dentch'.

Christopher B. Dentch
Project Engineer

cc: A. Sepe, City of Providence
S. Tremblay, Providence School Department
Providence Public Building Authority

TABLES

Table 1
System Monitoring Notes
Springfield Street School Complex
Providence, Rhode Island
August 28, 2008

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	0.5	20.2	0.0	0.0	0.0
Elementary School inlet 2	0.0	0.1	20.2	0.0	0.0	0.0
Elementary School Outlet	0.0	0.3	20.2	0.0	0.0	0.0
Middle School front shed inlet	0.0	0.1	20.5	0.0	0.0	0.0
Middle School front shed after 2 nd carbon	0.0	0.1	21.1	0.0	0.0	0.0
Middle School back shed inlet	0.0	0.3	20.7	0.0	0.0	0.0
Middle School back shed after 2 nd carbon	0.0	0.3	20.4	0.0	0.0	0.0
Remedial Action Work Plan Action Levels	0.5	1,000 ppm (0.1%)	NA	9 ppm	10 ppm	5 ppm

Measurements made with: Landtec GEM 2000 Plus, MiniRae PID, RAE 4 gas meter, Fluke 975 Airmeter

Sampling date: August 28, 2008

Measured by: Donna Pallister

Table 2
Indoor Air Monitoring Results
Springfield Street School Complex
Providence, Rhode Island
August 28, 2008

Monitoring Location	Methane % by volume Landtec	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
E.S. Front office	0.0	659	20.9	0	0	0.0
E.S. Elevator	0.0	589	20.9	0	0	0.0
E.S. Faculty Work Room	0.0	542	20.9	0	0	0.0
E.S. Gym	0.0	578	20.9	0	0	0.0
E.S. Hallway Outside Gym	0.0	584	20.9	0	0	0.0
E.S. Library	0.0	586	20.9	0	0	0.0
E.S. Elect. Rm. in Mech. Rm.	0.0	615	20.9	0	0	0.0
E.S. Stairway Stair B	0.0	761	20.9	0	0	0.0
E.S. Room 106	0.0	645	20.9	0	0	0.0
E.S. Cafeteria	0.0	854	20.9	0	0	0.0

Table 2
Indoor Air Monitoring Notes
Springfield Street School Complex
August 28, 2008

Monitoring Location	Methane % by volume Landtec	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Front Office	0.0	624	20.5	0	0	0.0
M.S. Elevator	0.0	633	20.5	0	0	0.0
M.S. Music Room (now an art room)	0.0	622	20.9	0	0	0.0
M.S. Stairway near Elem. School	0.0	690	20.6	0	0	0.0
M.S. Near sensor #16 in hall outside cafeteria	0.0	743	20.9	0	0	0.0
M.S. Near Sensor in cafeteria (GS-19)	0.0	713	20.6	0	0	0.0
M.S. Library	0.0	585	20.6	0	0	0.0
M.S. GS-03	0.0	651	20.6	0	0	0.0

Table 2
Indoor Air Monitoring Notes
Springfield Street School Complex
August 28, 2008

Monitoring Location	Methane % by volume Landtec	Carbon Dioxide PPM	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
M.S. Faculty Workroom 1st Floor	0.0	621	20.6	0	0	0.0
M.S. Front Hall near sensor #4	0.0	624	20.6	0	0	0.0
M.S. Hallway across from elevator near sensor #9	0.0	677	20.9	0	0	0.0
M.S. Stairway/ Hartford Ave. near sensor #07	0.0	543	20.6	0	0	0.0
Remedial Action Work Plan Action Levels	0.5	1,000 ppm (0.1%)	NA	9 ppm	10 ppm	5 ppm

Notes:

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

Measurements made with: Landtec GEM 2000 Plus, MiniRae PID, RAE 4 gas meter, Fluke 975 Airmeter

PPM = Parts per million

Table 3
 Summary of Ground Water Sampling Results
 Springfield Street School Complex
 Springfield Street
 Providence, Rhode Island

Monitoring Wells	Detected Compounds	Sampling Dates and Results in µg/L																										RIDEM GB Groundwater Objective		
		2/28/2001	7/20/2001	*9- 12/2001	8/1/2002	8/28/2002	12/19/2002	3/18/2003	7/17/2003	11/5/2003	1/22/2004	5/21/2004	8/17/2004	12/2/2004	4/6/2005	7/27/2005	10/27&28/2005	2/2/2006	4/27/2006	8/31/2006	11/15/2006	3/27/2007	5/21/2007	8/20/2007	11/13/2007	2/12/2008	5/21/2008		8/26/2008	
ATC-1	Benzene	6.1	ND	18.9	0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
	n-butylbenzene	1.7	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	NA	
	sec-Butylbenzene	1.1	ND	4.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	
	tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	NA	
	Ethylbenzene	4.5	ND	12.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1600		
	Isopropylbenzene	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	n-Propylbenzene	ND	ND	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	MTBE	12.4	7.0	28.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	Trichloroethylene	ND	ND	ND	ND	ND	ND	ND	1.27	ND	ND	ND	ND	1.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	5000		
	Toluene	2.5	ND	8.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1700		
	1,2,4-Trimethylbenzene	2.2	ND	8.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	1,3,5-Trimethylbenzene	3.4	ND	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	Xylenes	14.6	ND	37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
	1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
ATC-2	Chloroform	0.9	ND	ND	1.0	ND	ND	ND	ND	ND	NS	1.1	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NA	
ATC-3	Toluene	ND	ND	ND	ND	NS	ND	ND	ND	ND	3.03	ND	ND	ND	ND	ND	3.0	ND	4.5	13.1	ND	2.3	1.3	ND	ND	NS	NS	1700		
ATC-4	Benzene	ND	ND	2.5	0.6	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140		
	Chlorobenzene	2.6	ND	57.3	2.7	5.18	ND	ND	ND	ND	ND	0.60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.80	1.90	ND	ND	1.2	70		
	1,4-dichlorobenzene	4.2	ND	9.2	3.4	3.36	ND	ND	ND	ND	0.80	1.6	2.1	ND	ND	ND	ND	ND	1.2	1.1	ND	1.2	2.1	2.1	ND	ND	2.1	NA		
	MTBE	ND	ND	ND	ND	ND	ND	ND	1.19	9.55	1.06	2.90	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5000		
	1,2,4-Trimethylbenzene	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
ATC-5	MTBE	ND	ND	2.2	NS	ND	ND	ND	ND	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5000		
	Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA		
Sampled By:		ATC	ATC	ATC	ATC	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR	LFR		

*ATC Monitoring Report for September through December 2001 did not list date samples were collected.
 ND is not detected above method detection limit
 NS is not sampled
 NA= No applicable standard published
 MTBE is Methyl tert-Butyl Ether
 µg/L = micrograms per liter

Table 4
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
August 26, 2008

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	4.3	15.3	2	0	0.0
WB-2	0.0	0.4	21.1	0	0	0.0
WB-3	0.0	0.0	21.8	0	0	0.0
WB-4	0.0	0.0	22.0	0	0	0.0
WB-5	0.0	0.0	22.1	0	0	0.0
WB-6	0.0	0.0	22.1	0	0	0.0
WB-7	NM	NM	NM	NM	NM	NM
WB-8	0.0	0.0	21.9	0	0	0.0
WB-12	0.0	0.0	21.1	0	0	0.0
WB-13	0.0	0.9	19.7	0	0	0.9
WB-14	0.0	7.6	8.5	3	0	0.0
WB-15	0.0	9.5	8.5	3	0	0.9
EPL-1	0.0	0.7	20.3	0	0	0.2
EPL-2	0.0	1.6	18.7	4	0	1.1
EPL-3	0.0	3.4	16.7	4	0	0.0
EPL-4	0.0	3.2	17.0	4	0	0.5
EPL-5	0.0	5.0	13.9	4	0	0.5
ENE-1	0.0	0.3	20.6	0	0	0.0

Table 4
Soil Gas Survey Field Notes
Springfield Street School Complex
Providence, Rhode Island
August 26, 2008

Monitoring Well	Methane % by volume	Carbon Dioxide % by volume	Oxygen % by volume	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors PPM
MG1	0.0	6.0	9.6	4	0	0.0
MG2	0.0	1.3	18.6	4	0	0.0
MG3	0.0	5.3	12.8	4	0	0.0
MG4	0.0	3.9	14.8	3	0	0.0
MG5	0.0	1.4	18.6	4	0	0.0
MPL2	0.0	10.6	3.3	4	0	0.0
MPL3	0.0	9.7	5.3	4	0	0.0
MPL5	0.0	10.2	4.9	4	0	0.0
MPL6	0.0	11.8	6.5	4	0	0.0
MPL7	0.0	9.3	8.3	4	0	1.3
MPL8	0.0	7.6	9.3	4	0	1.2
Remedial Action Work Plan Action Levels	0.5%	1,000 PPM	NA	9 PPM	10 PPM	5 PPM

Sampled by: Chris Jamison

Weather Conditions: Sunny, Temperature 75-80 F

Sampling Equipment: Landtec GEM 2000 Plus, MiniRae 2000 PID, QRae 4 gas meter

NM = Not measured. Well WB-7 contained water to top of casing on day of sampling.



Table 5
Results of Laboratory Analysis of Soil Gas
Springfield Street School Complex
Providence, Rhode Island

Parameter	OSHA PELs (PPBv)	Results of Analysis in parts per billion by volume (PPBv)													
		MPL-6							WB-2						
		2/20/2007	5/17/2007	8/22/2007	11/14/2007	2/12/2008	5/21/2008	8/26/2008	2/20/2007	5/17/2007	8/22/2007	11/14/2007	2/12/2008	5/21/2008	8/26/2008
Benzene	1,000	ND	0.36	0.74	ND	ND	ND	0.51	1.0	ND	ND	ND	ND	0.21	0.46
Chloroethane	1,000,000	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND
Chloroform	50,000	ND	3.2	0.48	ND	ND	0.25	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	100,000	ND	0.24	0.36	ND	ND	0.28	0.88	ND	0.11	ND	ND	ND	0.2	0.56
Dichlorodifluoromethane	1,000,000	ND	ND	0.28	ND	ND	0.53	0.78	ND	0.5	0.57	0.66	0.57	0.49	0.66
1,4-Dichlorobenzene	75,000	ND	ND	0.54	ND	ND	ND	0.65	ND	0.16	0.37	ND	ND	ND	ND
1,1-Dichloroethane	100,000	ND	ND	0.28	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND
1,1-Dichloroethylene	None	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND
Cis-1,2-Dichloroethylene	200,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	ND	ND	ND	ND
Ethylbenzene	100,000	ND	0.75	0.7	2.3	0.65	1.3	3.9	3.9	0.55	0.46	3.2	0.78	0.41	1.3
Methylene Chloride	100,000	ND	ND	0.84	3.5	2	2.6	3.8	3.8	0.53	2.5	4.9	2.5	3.4	3.0
Styrene	100,000	ND	1.6	1.5	1.4	ND	1.1	3.0	3.0	1	1.1	0.69	ND	0.5	1.5
Tetrachloroethylene	100,000	ND	0.19	0.27	4.6	1.9	0.99	4.1	4.1	0.16	0.81	3.2	2.7	0.64	1.6
Toluene	200,000	4.9	17	7.2	15	6.9	7.7	64	64	4.6	12	5.3	10	9.3	30
1,1,1-Trichloroethane	350,000	ND	ND	0.36	ND	ND	ND	ND	0.27	ND	ND	ND	ND	1.3	ND
Trichloroethylene	100,000	ND	ND	0.25	0.53	1	4.1	3.6	ND	ND	ND	ND	ND	3	2.8
Trichlorofluoromethane (Freon 11)	1,000,000	ND	ND	0.7	0.65	ND	0.27	1.3	1.3	0.41	0.43	ND	ND	0.26	0.54
1,1,2-Trichloro-1,2,2-Trifluoroethane	1,000,000	ND	ND	0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	None	ND	0.12	ND	ND	ND	0.28	3.7	3.7	ND	ND	0.57	ND	ND	0.67
1,2,4-Trimethylbenzene	None	ND	ND	0.44	1.6	1.3	1.3	9.1	9.1	1	0.26	1.7	1.1	0.66	1.6
m/p-Xylene	100,000	1.4	3.1	2.4	5.3	2.2	3.7	11	11	1.2	2.5	10	2.6	1.3	3.7
o-Xylene	100,000	ND	0.61	0.68	1.8	0.69	1.6	5.0	5.0	ND	0.56	0.48	0.8	0.64	1.5

Notes:
 ND = Not detected
 Only detected compounds are listed, see laboratory report for complete list on analytes.

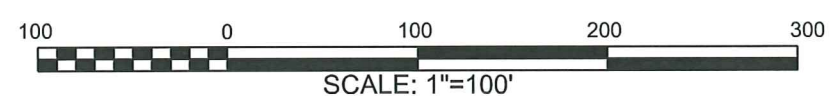
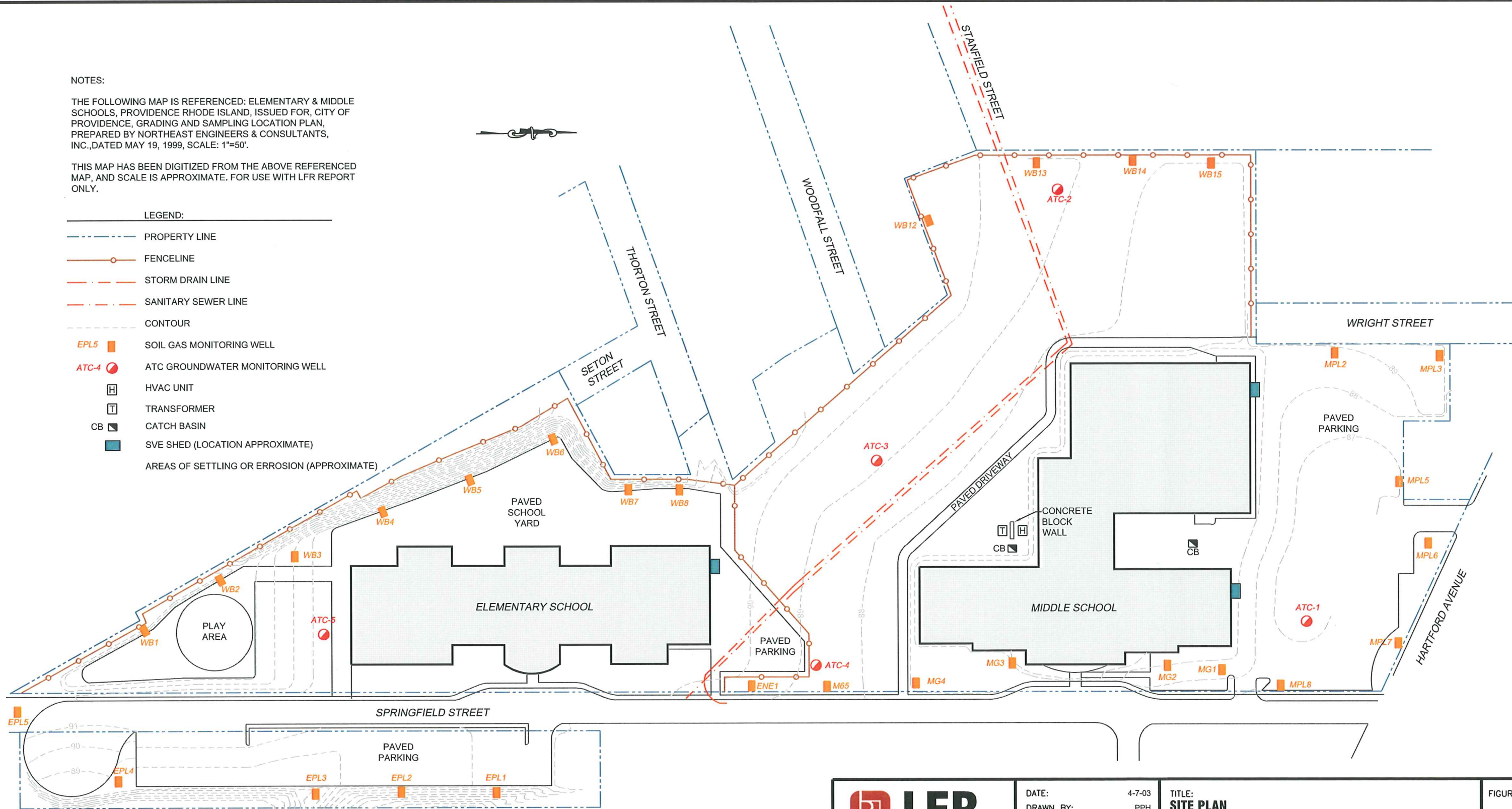
FIGURE

NOTES:

THE FOLLOWING MAP IS REFERENCED: ELEMENTARY & MIDDLE SCHOOLS, PROVIDENCE RHODE ISLAND, ISSUED FOR, CITY OF PROVIDENCE, GRADING AND SAMPLING LOCATION PLAN, PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS, INC., DATED MAY 19, 1999, SCALE: 1"=50'.

THIS MAP HAS BEEN DIGITIZED FROM THE ABOVE REFERENCED MAP, AND SCALE IS APPROXIMATE. FOR USE WITH LFR REPORT ONLY.

- LEGEND:
- PROPERTY LINE
 - FENCELINE
 - STORM DRAIN LINE
 - SANITARY SEWER LINE
 - CONTOUR
 - EPL5 SOIL GAS MONITORING WELL
 - ATC-4 ATC GROUNDWATER MONITORING WELL
 - HVAC UNIT
 - TRANSFORMER
 - CATCH BASIN
 - SVE SHED (LOCATION APPROXIMATE)
 - AREAS OF SETTLING OR ERROSION (APPROXIMATE)



<p>LFR 250 Centerville Road Building E, Suite 12 Warwick, Rhode Island 02886 Phone: (401) 738-3887 Fax: (401) 732-1686</p>	<p>DATE: 4-7-03 DRAWN BY: PPH REVIEWED BY: DP APPROVED BY: DP SCALE: AS NOTED FILE NO: 081-12027-00 JOB NO: 081-12027-00</p>	<p>TITLE: SITE PLAN</p>	<p>FIGURE: 1</p>
	<p>LOCATION: SPRINGFIELD STREET SCHOOL COMPLEX SPRINGFIELD STREET PROVIDENCE, RHODE ISLAND</p>		

Attachment A

Limitations

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 LFR 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 LFR relied upon any information prepared by other parties not under contract to LFR, LFR 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 LFR's 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. LFR'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.

LFR, 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 Report for Soil Gas and Groundwater



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

REPORT DATE 9/4/2008

LFR, INC. - RI
300 METRO CENTER BLVD., SUITE 250
WARWICK, RI 02886
ATTN: DONNA PALLISTER

CONTRACT NUMBER:
PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER:

ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-19090
JOB NUMBER: 081-12152-00

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.
Results are based on samples as submitted to the laboratory and relate only to the items collected and tested.

PROJECT LOCATION: SPRINGFIELD STREET

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	Subcontract Lab (if any) Cert. Nos.
ATC-1	08B34203	GRND WATER	Not Specified	8260 water	
ATC-4	08B34204	GRND WATER	Not Specified	8260 water	
ATC-5	08B34205	GRND WATER	Not Specified	8260 water	
MPL-6	08B34201	AIR	Not Specified	to-14 ppbv	
MPL-6	08B34201	AIR	Not Specified	to-14 ug/m3	
*TRIP BLANK	08B34206	WATER OTHE	Not Specified	8260 water	
WB-2	08B34202	AIR	Not Specified	to-14 ppbv	
WB-2	08B34202	AIR	Not Specified	to-14 ug/m3	



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REPORT DATE 9/4/2008

LFR, INC. - RI
300 METRO CENTER BLVD., SUITE 250
WARWICK, RI 02886
ATTN: DONNA PALLISTER

CONTRACT NUMBER:
PURCHASE ORDER NUMBER: 5131

PROJECT NUMBER:

ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-19090
JOB NUMBER: 081-12152-00

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report. Results are based on samples as submitted to the laboratory and relate only to the items collected and tested.

Comments :

LIMS BATCH NO. : LIMIT-19090

In method 8260 water, initial and/or continuing calibration did not meet method specifications. For all samples, 1,4-Dioxane was calibrated with a relative response factor <0.05.

In method 8260 water, any reported result for trans-1,4-Dichloro-2-butene, p-Isopropyltoluene, n-Butylbenzene, Hexachlorobutadiene, Naphthalene, and 1,2,3-Trichlorobenzene in all samples is estimated and likely to be biased on the low side based on continuing calibration bias.

In method TO-14, any reported result for 1,2-dichloropropane is estimated and likely to be biased on the low side based on continuing calibration bias.

In method TO-14, any reported result for trichlorofluoromethane is likely to be biased on the high side based on laboratory fortified blank recovery bias.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations. AIHA accreditations only apply to NIOSH methods and Environmental Lead Analyses.

AIHA 100033	AIHA ELLAP (LEAD) 100033	NORTH CAROLINA CERT. #652
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	FLORIDA DOH E871027 (AIR)
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	

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.

SIGNATURE

9/4/08

DATE

Tod Kopyscinski
Air Laboratory Manager

Douglas Sheeley
Laboratory Manager

Edward Denson
Technical Director

Daren Damboragian
Organics Department Supervisor

* See end of data tabulation for notes and comments pertaining to this sample



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DONNA PALLISTER
 LFR, INC. - RI
 300 METRO CENTER BLVD., SUITE 250
 WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008
 Page 1 of 19

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-1

Sample ID: 08B34203 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
Acetone	ug/l	ND	50.0		08/28/08	LBD
Acrylonitrile	ug/l	ND	5.0		08/28/08	LBD
tert-Amylmethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Benzene	ug/l	ND	1.0		08/28/08	LBD
Bromobenzene	ug/l	ND	1.0		08/28/08	LBD
Bromochloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromodichloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromoform	ug/l	ND	1.0		08/28/08	LBD
Bromomethane	ug/l	ND	2.0		08/28/08	LBD
2-Butanone (MEK)	ug/l	ND	20.0		08/28/08	LBD
tert-Butyl Alcohol	ug/l	ND	20.0		08/28/08	LBD
n-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
sec-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Carbon Disulfide	ug/l	ND	3.0		08/28/08	LBD
Carbon Tetrachloride	ug/l	ND	1.0		08/28/08	LBD
Chlorobenzene	ug/l	ND	1.0		08/28/08	LBD
Chlorodibromomethane	ug/l	ND	0.5		08/28/08	LBD
Chloroethane	ug/l	ND	2.0		08/28/08	LBD
Chloroform	ug/l	ND	2.0		08/28/08	LBD
Chloromethane	ug/l	ND	2.0		08/28/08	LBD
2-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
4-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dibromo-3-Chloropropane	ug/l	ND	5.0		08/28/08	LBD
1,2-Dibromoethane	ug/l	ND	0.50		08/28/08	LBD
Dibromomethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,4-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
trans-1,4-Dichloro-2-Butene	ug/l	ND	2.0		08/28/08	LBD
Dichlorodifluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,1-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

DONNA PALLISTER
 LFR, INC. - RI
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 WARWICK, RI 02886

9/4/2008
 Page 2 of 19

Purchase Order No.: 5131

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-1

Sample ID: 08B34203 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
cis-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
trans-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichloropropane	ug/l	ND	0.5		08/28/08	LBD
2,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloropropene	ug/l	ND	2.0		08/28/08	LBD
cis-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
trans-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
Diethyl Ether	ug/l	ND	2.0		08/28/08	LBD
Diisopropyl Ether	ug/l	ND	0.5		08/28/08	LBD
1,4-Dioxane	ug/l	ND	50.0		08/28/08	LBD
Ethyl Benzene	ug/l	ND	1.0		08/28/08	LBD
Hexachlorobutadiene	ug/l	ND	1.0		08/28/08	LBD
2-Hexanone	ug/l	ND	10.0		08/28/08	LBD
Isopropylbenzene	ug/l	ND	1.0		08/28/08	LBD
p-Isopropyltoluene	ug/l	ND	1.0		08/28/08	LBD
MTBE	ug/l	1.4	1.0		08/28/08	LBD
Methylene Chloride	ug/l	ND	5.0		08/28/08	LBD
MIBK	ug/l	ND	10.0		08/28/08	LBD
Naphthalene	ug/l	ND	2.0		08/28/08	LBD
n-Propylbenzene	ug/l	ND	1.0		08/28/08	LBD
Styrene	ug/l	ND	1.0		08/28/08	LBD
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2,2-Tetrachloroethane	ug/l	ND	0.5		08/28/08	LBD
Tetrachloroethylene	ug/l	ND	1.0		08/28/08	LBD
Tetrahydrofuran	ug/l	ND	10.0		08/28/08	LBD
Toluene	ug/l	ND	1.0		08/28/08	LBD
1,2,3-Trichlorobenzene	ug/l	ND	5.0		08/28/08	LBD
1,2,4-Trichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,1,1-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
Trichloroethylene	ug/l	ND	1.0		08/28/08	LBD
Trichlorofluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,2,3-Trichloropropane	ug/l	ND	2.0		08/28/08	LBD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	ND	5.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

DONNA PALLISTER
LFR, INC. - RI
300 METRO CENTER BLVD., SUITE 250
WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008
Page 3 of 19

Project Location: SPRINGFIELD STREET
Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
Job Number: 081-12152-00

Field Sample #: ATC-1

Sample ID : 08B34203 ‡Sampled : 8/26/2008
Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
1,2,4-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
1,3,5-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
Vinyl Chloride	ug/l	ND	2.0		08/28/08	LBD
m + p Xylene	ug/l	ND	2.0		08/28/08	LBD
o-Xylene	ug/l	ND	1.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

DONNA PALLISTER
 LFR, INC. - RI
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 WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008
 Page 4 of 19

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-4

Sample ID: 08B34204 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
Acetone	ug/l	ND	50.0		08/28/08	LBD
Acrylonitrile	ug/l	ND	5.0		08/28/08	LBD
tert-Amylmethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Benzene	ug/l	ND	1.0		08/28/08	LBD
Bromobenzene	ug/l	ND	1.0		08/28/08	LBD
Bromochloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromodichloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromoform	ug/l	ND	1.0		08/28/08	LBD
Bromomethane	ug/l	ND	2.0		08/28/08	LBD
2-Butanone (MEK)	ug/l	ND	20.0		08/28/08	LBD
tert-Butyl Alcohol	ug/l	ND	20.0		08/28/08	LBD
n-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
sec-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Carbon Disulfide	ug/l	ND	3.0		08/28/08	LBD
Carbon Tetrachloride	ug/l	ND	1.0		08/28/08	LBD
Chlorobenzene	ug/l	1.2	1.0		08/28/08	LBD
Chlorodibromomethane	ug/l	ND	0.5		08/28/08	LBD
Chloroethane	ug/l	ND	2.0		08/28/08	LBD
Chloroform	ug/l	ND	2.0		08/28/08	LBD
Chloromethane	ug/l	ND	2.0		08/28/08	LBD
2-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
4-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dibromo-3-Chloropropane	ug/l	ND	5.0		08/28/08	LBD
1,2-Dibromoethane	ug/l	ND	0.50		08/28/08	LBD
Dibromomethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,4-Dichlorobenzene	ug/l	2.1	1.0		08/28/08	LBD
trans-1,4-Dichloro-2-Butene	ug/l	ND	2.0		08/28/08	LBD
Dichlorodifluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,1-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

DONNA PALLISTER
LFR, INC. - RI
300 METRO CENTER BLVD., SUITE 250
WARWICK, RI 02886

9/4/2008
Page 5 of 19

Purchase Order No.: 5131

Project Location: SPRINGFIELD STREET
Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
Job Number: 081-12152-00

Field Sample #: ATC-4

Sample ID : 08B34204 ‡Sampled : 8/26/2008
Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
cis-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
trans-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichloropropane	ug/l	ND	0.5		08/28/08	LBD
2,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloropropene	ug/l	ND	2.0		08/28/08	LBD
cis-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
trans-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
Diethyl Ether	ug/l	ND	2.0		08/28/08	LBD
Diisopropyl Ether	ug/l	ND	0.5		08/28/08	LBD
1,4-Dioxane	ug/l	ND	50.0		08/28/08	LBD
Ethyl Benzene	ug/l	ND	1.0		08/28/08	LBD
Hexachlorobutadiene	ug/l	ND	1.0		08/28/08	LBD
2-Hexanone	ug/l	ND	10.0		08/28/08	LBD
Isopropylbenzene	ug/l	ND	1.0		08/28/08	LBD
p-Isopropyltoluene	ug/l	ND	1.0		08/28/08	LBD
MTBE	ug/l	ND	1.0		08/28/08	LBD
Methylene Chloride	ug/l	ND	5.0		08/28/08	LBD
MIBK	ug/l	ND	10.0		08/28/08	LBD
Naphthalene	ug/l	ND	2.0		08/28/08	LBD
n-Propylbenzene	ug/l	ND	1.0		08/28/08	LBD
Styrene	ug/l	ND	1.0		08/28/08	LBD
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2,2-Tetrachloroethane	ug/l	ND	0.5		08/28/08	LBD
Tetrachloroethylene	ug/l	ND	1.0		08/28/08	LBD
Tetrahydrofuran	ug/l	ND	10.0		08/28/08	LBD
Toluene	ug/l	ND	1.0		08/28/08	LBD
1,2,3-Trichlorobenzene	ug/l	ND	5.0		08/28/08	LBD
1,2,4-Trichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,1,1-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
Trichloroethylene	ug/l	ND	1.0		08/28/08	LBD
Trichlorofluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,2,3-Trichloropropane	ug/l	ND	2.0		08/28/08	LBD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	ND	5.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

DONNA PALLISTER
LFR, INC. - RI
300 METRO CENTER BLVD., SUITE 250
WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008
Page 6 of 19

Project Location: SPRINGFIELD STREET
Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
Job Number: 081-12152-00

Field Sample #: ATC-4

Sample ID: 08B34204 ‡Sampled: 8/26/2008
Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
1,2,4-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
1,3,5-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
Vinyl Chloride	ug/l	ND	2.0		08/28/08	LBD
m + p Xylene	ug/l	ND	2.0		08/28/08	LBD
o-Xylene	ug/l	ND	1.0		08/28/08	LBD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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9/4/2008
 Page 7 of 19

Purchase Order No.: 5131

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-5

Sample ID: 08B34205 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
Acetone	ug/l	ND	50.0		08/28/08	LBD
Acrylonitrile	ug/l	ND	5.0		08/28/08	LBD
tert-Amylmethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Benzene	ug/l	ND	1.0		08/28/08	LBD
Bromobenzene	ug/l	ND	1.0		08/28/08	LBD
Bromochloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromodichloromethane	ug/l	ND	1.0		08/28/08	LBD
Bromoform	ug/l	ND	1.0		08/28/08	LBD
Bromomethane	ug/l	ND	2.0		08/28/08	LBD
2-Butanone (MEK)	ug/l	ND	20.0		08/28/08	LBD
tert-Butyl Alcohol	ug/l	ND	20.0		08/28/08	LBD
n-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
sec-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylbenzene	ug/l	ND	1.0		08/28/08	LBD
tert-Butylethyl Ether	ug/l	ND	0.5		08/28/08	LBD
Carbon Disulfide	ug/l	ND	3.0		08/28/08	LBD
Carbon Tetrachloride	ug/l	ND	1.0		08/28/08	LBD
Chlorobenzene	ug/l	ND	1.0		08/28/08	LBD
Chlorodibromomethane	ug/l	ND	0.5		08/28/08	LBD
Chloroethane	ug/l	ND	2.0		08/28/08	LBD
Chloroform	ug/l	ND	2.0		08/28/08	LBD
Chloromethane	ug/l	ND	2.0		08/28/08	LBD
2-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
4-Chlorotoluene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dibromo-3-Chloropropane	ug/l	ND	5.0		08/28/08	LBD
1,2-Dibromoethane	ug/l	ND	0.50		08/28/08	LBD
Dibromomethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,4-Dichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
trans-1,4-Dichloro-2-Butene	ug/l	ND	2.0		08/28/08	LBD
Dichlorodifluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,1-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD

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‡ See attached chain-of-custody record for time sampled



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DONNA PALLISTER
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9/4/2008
 Page 8 of 19

Purchase Order No.: 5131

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-5

Sample ID: 08B34205 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
cis-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
trans-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichloropropane	ug/l	ND	0.5		08/28/08	LBD
2,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloropropene	ug/l	ND	2.0		08/28/08	LBD
cis-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
trans-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
Diethyl Ether	ug/l	ND	2.0		08/28/08	LBD
Diisopropyl Ether	ug/l	ND	0.5		08/28/08	LBD
1,4-Dioxane	ug/l	ND	50.0		08/28/08	LBD
Ethyl Benzene	ug/l	ND	1.0		08/28/08	LBD
Hexachlorobutadiene	ug/l	ND	1.0		08/28/08	LBD
2-Hexanone	ug/l	ND	10.0		08/28/08	LBD
Isopropylbenzene	ug/l	ND	1.0		08/28/08	LBD
p-Isopropyltoluene	ug/l	ND	1.0		08/28/08	LBD
MTBE	ug/l	ND	1.0		08/28/08	LBD
Methylene Chloride	ug/l	ND	5.0		08/28/08	LBD
MIBK	ug/l	ND	10.0		08/28/08	LBD
Naphthalene	ug/l	ND	2.0		08/28/08	LBD
n-Propylbenzene	ug/l	ND	1.0		08/28/08	LBD
Styrene	ug/l	ND	1.0		08/28/08	LBD
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2,2-Tetrachloroethane	ug/l	ND	0.5		08/28/08	LBD
Tetrachloroethylene	ug/l	ND	1.0		08/28/08	LBD
Tetrahydrofuran	ug/l	ND	10.0		08/28/08	LBD
Toluene	ug/l	ND	1.0		08/28/08	LBD
1,2,3-Trichlorobenzene	ug/l	ND	5.0		08/28/08	LBD
1,2,4-Trichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,1,1-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
Trichloroethylene	ug/l	ND	1.0		08/28/08	LBD
Trichlorofluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,2,3-Trichloropropane	ug/l	ND	2.0		08/28/08	LBD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	ND	5.0		08/28/08	LBD

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9/4/2008
 Page 9 of 19

Purchase Order No.: 5131

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: ATC-5

Sample ID : 08B34205 ‡Sampled : 8/26/2008
 Not Specified

Sample Matrix: GRND WATER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
1,2,4-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
1,3,5-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
Vinyl Chloride	ug/l	ND	2.0		08/28/08	LBD
m + p Xylene	ug/l	ND	2.0		08/28/08	LBD
o-Xylene	ug/l	ND	1.0		08/28/08	LBD

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NM = Not Measured

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‡ See attached chain-of-custody record for time sampled



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Purchase Order No.: 5131

9/4/2008
 Page 11 of 19

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample # : MPL-6

Sample ID : 08B34201 ‡Sampled : 8/26/2008
 Not Specified
Sample Matrix: AIR Sample Medium : TEDLAR BAG

	Units	Results	RL	Method	Date Analyzed	Analyst
				EPA TO-14A		
to-14 ppbv						
Vinyl Chloride	PPBv	ND	0.25		08/28/08	TPH
m/p-Xylene	PPBv	11	0.50		08/28/08	TPH
o-Xylene	PPBv	5.0	0.25		08/28/08	TPH
				EPA TO-14A		
to-14 ug/m						
Benzene	ug/m3	3.3	0.80		08/28/08	TPH
Bromomethane	ug/m3	ND	0.95		08/28/08	TPH
Carbon Tetrachloride	ug/m3	ND	1.6		08/28/08	TPH
Chlorobenzene	ug/m3	ND	1.2		08/28/08	TPH
Chloroethane	ug/m3	ND	0.65		08/28/08	TPH
Chloroform	ug/m3	ND	1.2		08/28/08	TPH
Chloromethane	ug/m3	1.8	0.50		08/28/08	TPH
1,2-Dibromoethane	ug/m3	ND	1.9		08/28/08	TPH
1,2-Dichlorobenzene	ug/m3	ND	1.5		08/28/08	TPH
1,3-Dichlorobenzene	ug/m3	ND	1.5		08/28/08	TPH
1,4-Dichlorobenzene	ug/m3	3.9	1.5		08/28/08	TPH
Dichlorodifluoromethane	ug/m3	3.9	1.3		08/28/08	TPH
1,1-Dichloroethane	ug/m3	ND	1.0		08/28/08	TPH
1,2-Dichloroethane	ug/m3	8.3	1.0		08/28/08	TPH
1,1-Dichloroethylene	ug/m3	ND	1.0		08/28/08	TPH
cis-1,2-Dichloroethylene	ug/m3	ND	1.0		08/28/08	TPH
1,2-Dichloropropane	ug/m3	1.8	1.2		08/28/08	TPH
cis-1,3-Dichloropropene	ug/m3	ND	1.1		08/28/08	TPH
trans-1,3-Dichloropropene	ug/m3	ND	1.1		08/28/08	TPH
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	1.8		08/28/08	TPH
Ethylbenzene	ug/m3	17	1.1		08/28/08	TPH
Hexachlorobutadiene	ug/m3	ND	2.7		08/28/08	TPH
Methylene Chloride	ug/m3	13	0.85		08/28/08	TPH
Styrene	ug/m3	13	1.1		08/28/08	TPH
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.7		08/28/08	TPH
Tetrachloroethylene	ug/m3	28	1.7		08/28/08	TPH
Toluene	ug/m3	240	0.95		08/28/08	TPH
1,2,4-Trichlorobenzene	ug/m3	ND	1.9		08/28/08	TPH
1,1,1-Trichloroethane	ug/m3	1.5	1.4		08/28/08	TPH
1,1,2-Trichloroethane	ug/m3	ND	1.4		08/28/08	TPH
Trichloroethylene	ug/m3	19	1.4		08/28/08	TPH

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‡ See attached chain-of-custody record for time sampled



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DONNA PALLISTER
 LFR, INC. - RI
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 WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008
 Page 14 of 19

Project Location: SPRINGFIELD STREET
 Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
 Job Number: 081-12152-00

Field Sample #: TRIP BLANK

Sample ID: *08B34206 ‡Sampled: 8/26/2008
 Not Specified

Sample Matrix: WATER OTHER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
cis-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
trans-1,2-Dichloroethylene	ug/l	ND	1.0		08/28/08	LBD
1,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,3-Dichloropropane	ug/l	ND	0.5		08/28/08	LBD
2,2-Dichloropropane	ug/l	ND	1.0		08/28/08	LBD
1,1-Dichloropropene	ug/l	ND	2.0		08/28/08	LBD
cis-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
trans-1,3-Dichloropropene	ug/l	ND	0.5		08/28/08	LBD
Diethyl Ether	ug/l	ND	2.0		08/28/08	LBD
Diisopropyl Ether	ug/l	ND	0.5		08/28/08	LBD
1,4-Dioxane	ug/l	ND	50.0		08/28/08	LBD
Ethyl Benzene	ug/l	ND	1.0		08/28/08	LBD
Hexachlorobutadiene	ug/l	ND	1.0		08/28/08	LBD
2-Hexanone	ug/l	ND	10.0		08/28/08	LBD
Isopropylbenzene	ug/l	ND	1.0		08/28/08	LBD
p-Isopropyltoluene	ug/l	ND	1.0		08/28/08	LBD
MTBE	ug/l	ND	1.0		08/28/08	LBD
Methylene Chloride	ug/l	ND	5.0		08/28/08	LBD
MIBK	ug/l	ND	10.0		08/28/08	LBD
Naphthalene	ug/l	ND	2.0		08/28/08	LBD
n-Propylbenzene	ug/l	ND	1.0		08/28/08	LBD
Styrene	ug/l	ND	1.0		08/28/08	LBD
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2,2-Tetrachloroethane	ug/l	ND	0.5		08/28/08	LBD
Tetrachloroethylene	ug/l	ND	1.0		08/28/08	LBD
Tetrahydrofuran	ug/l	ND	10.0		08/28/08	LBD
Toluene	ug/l	ND	1.0		08/28/08	LBD
1,2,3-Trichlorobenzene	ug/l	ND	5.0		08/28/08	LBD
1,2,4-Trichlorobenzene	ug/l	ND	1.0		08/28/08	LBD
1,1,1-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
1,1,2-Trichloroethane	ug/l	ND	1.0		08/28/08	LBD
Trichloroethylene	ug/l	ND	1.0		08/28/08	LBD
Trichlorofluoromethane	ug/l	ND	2.0		08/28/08	LBD
1,2,3-Trichloropropane	ug/l	ND	2.0		08/28/08	LBD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	ND	5.0		08/28/08	LBD

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‡ See attached chain-of-custody record for time sampled



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DONNA PALLISTER

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WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008

Page 15 of 19

Project Location: SPRINGFIELD STREET

Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090

Job Number: 081-12152-00

Field Sample #: TRIP BLANK

Sample ID: *08B34206

‡Sampled: 8/26/2008

Not Specified

Sample Matrix: WATER OTHER

	Units	Results	RL	Method	Date Analyzed	Analyst
8260 water				SW846 8260		
1,2,4-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
1,3,5-Trimethylbenzene	ug/l	ND	1.0		08/28/08	LBD
Vinyl Chloride	ug/l	ND	2.0		08/28/08	LBD
m + p Xylene	ug/l	ND	2.0		08/28/08	LBD
o-Xylene	ug/l	ND	1.0		08/28/08	LBD

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NM = Not Measured

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‡ See attached chain-of-custody record for time sampled

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Purchase Order No.: 5131

9/4/2008
Page 17 of 19

Project Location: SPRINGFIELD STREET
Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090
Job Number: 081-12152-00

Field Sample # : WB-2

Sample ID : 08B34202 ‡Sampled : 8/26/2008
Not Specified
Sample Matrix: AIR **Sample Medium :** TEDLAR BAG

	Units	Results	RL	Method	Date Analyzed	Analyst
to-14 ppbv						
EPA TO-14A						
Vinyl Chloride	PPBv	ND	0.25		08/28/08	TPH
m/p-Xylene	PPBv	3.7	0.50		08/28/08	TPH
o-Xylene	PPBv	1.5	0.25		08/28/08	TPH
to-14 ug/m						
EPA TO-14A						
Benzene	ug/m3	1.5	0.80		08/28/08	TPH
Bromomethane	ug/m3	ND	0.95		08/28/08	TPH
Carbon Tetrachloride	ug/m3	ND	1.6		08/28/08	TPH
Chlorobenzene	ug/m3	ND	1.2		08/28/08	TPH
Chloroethane	ug/m3	ND	0.65		08/28/08	TPH
Chloroform	ug/m3	ND	1.2		08/28/08	TPH
Chloromethane	ug/m3	1.2	0.50		08/28/08	TPH
1,2-Dibromoethane	ug/m3	ND	1.9		08/28/08	TPH
1,2-Dichlorobenzene	ug/m3	ND	1.5		08/28/08	TPH
1,3-Dichlorobenzene	ug/m3	ND	1.5		08/28/08	TPH
1,4-Dichlorobenzene	ug/m3	ND	1.5		08/28/08	TPH
Dichlorodifluoromethane	ug/m3	3.3	1.3		08/28/08	TPH
1,1-Dichloroethane	ug/m3	ND	1.0		08/28/08	TPH
1,2-Dichloroethane	ug/m3	3.6	1.0		08/28/08	TPH
1,1-Dichloroethylene	ug/m3	ND	1.0		08/28/08	TPH
cis-1,2-Dichloroethylene	ug/m3	ND	1.0		08/28/08	TPH
1,2-Dichloropropane	ug/m3	ND	1.2		08/28/08	TPH
cis-1,3-Dichloropropene	ug/m3	ND	1.1		08/28/08	TPH
trans-1,3-Dichloropropene	ug/m3	ND	1.1		08/28/08	TPH
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	1.8		08/28/08	TPH
Ethylbenzene	ug/m3	5.7	1.1		08/28/08	TPH
Hexachlorobutadiene	ug/m3	ND	2.7		08/28/08	TPH
Methylene Chloride	ug/m3	10	0.85		08/28/08	TPH
Styrene	ug/m3	6.3	1.1		08/28/08	TPH
1,1,2,2-Tetrachloroethane	ug/m3	ND	1.7		08/28/08	TPH
Tetrachloroethylene	ug/m3	11	1.7		08/28/08	TPH
Toluene	ug/m3	110	0.95		08/28/08	TPH
1,2,4-Trichlorobenzene	ug/m3	ND	1.9		08/28/08	TPH
1,1,1-Trichloroethane	ug/m3	ND	1.4		08/28/08	TPH
1,1,2-Trichloroethane	ug/m3	ND	1.4		08/28/08	TPH
Trichloroethylene	ug/m3	15	1.4		08/28/08	TPH

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‡ See attached chain-of-custody record for time sampled



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DONNA PALLISTER

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300 METRO CENTER BLVD., SUITE 250

WARWICK, RI 02886

Purchase Order No.: 5131

9/4/2008

Page 19 of 19

Project Location: SPRINGFIELD STREET

Date Received: 8/27/2008

LIMS-BAT #: LIMIT-19090

Job Number: 081-12152-00

The following notes were attached to the reported analysis :

Sample ID: * 08B34206

Analysis: 8260 water

Sample vial contained headspace.

** END OF REPORT **

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* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 1 of 10

QC Batch Number: BATCH-14953

Sample Id	Analysis	QC Analysis	Values	Units	Limits
08B34201	4-Bromofluorobenzene	Surrogate Recovery	95.62	%	70-130
08B34202	4-Bromofluorobenzene	Surrogate Recovery	91.87	%	70-130
BLANK-122707	Benzene	Blank	<0.08	ug/m3	
	Carbon Tetrachloride	Blank	<0.16	ug/m3	
	Chloroform	Blank	<0.12	ug/m3	
	1,2-Dichloroethane	Blank	<0.10	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.15	ug/m3	
	Ethylbenzene	Blank	<0.11	ug/m3	
	Styrene	Blank	<0.11	ug/m3	
	Tetrachloroethylene	Blank	<0.17	ug/m3	
	Toluene	Blank	<0.10	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.14	ug/m3	
	Trichloroethylene	Blank	<0.14	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.19	ug/m3	
	Trichlorofluoromethane	Blank	<0.14	ug/m3	
	o-Xylene	Blank	<0.11	ug/m3	
	m/p-Xylene	Blank	<0.22	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.15	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.15	ug/m3	
	1,1-Dichloroethane	Blank	<0.10	ug/m3	
	1,1-Dichloroethylene	Blank	<0.10	ug/m3	
	Vinyl Chloride	Blank	<0.07	ug/m3	
	Methylene Chloride	Blank	<0.18	ug/m3	
	Chlorobenzene	Blank	<0.12	ug/m3	
	Chloromethane	Blank	<0.05	ug/m3	
	Bromomethane	Blank	<0.10	ug/m3	
	Chloroethane	Blank	<0.07	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.11	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.11	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.14	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.17	ug/m3	
	Hexachlorobutadiene	Blank	<0.27	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.19	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.13	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.13	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.10	ug/m3	
	1,2-Dichloropropane	Blank	<0.12	ug/m3	
	Dichlorodifluoromethane	Blank	<0.13	ug/m3	
	1,2-Dibromoethane	Blank	<0.19	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.18	ug/m3	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat # : LIMT-19090

Page 2 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
08B34203	1,2-Dichloroethane-d4	Surrogate Recovery	107.0	%	70-130
	Toluene-d8	Surrogate Recovery	101.4	%	70-130
	Bromofluorobenzene	Surrogate Recovery	100.7	%	70-130
08B34204	1,2-Dichloroethane-d4	Surrogate Recovery	106.6	%	70-130
	Toluene-d8	Surrogate Recovery	100.8	%	70-130
	Bromofluorobenzene	Surrogate Recovery	99.9	%	70-130
08B34205	1,2-Dichloroethane-d4	Surrogate Recovery	108.4	%	70-130
	Toluene-d8	Surrogate Recovery	99.9	%	70-130
	Bromofluorobenzene	Surrogate Recovery	98.3	%	70-130
08B34206	1,2-Dichloroethane-d4	Surrogate Recovery	108.0	%	70-130
	Toluene-d8	Surrogate Recovery	99.5	%	70-130
	Bromofluorobenzene	Surrogate Recovery	99.0	%	70-130
BLANK-122591	Acetone	Blank	<50.0	ug/l	
	Benzene	Blank	<1.0	ug/l	
	Carbon Tetrachloride	Blank	<1.0	ug/l	
	Chloroform	Blank	<2.0	ug/l	
	1,2-Dichloroethane	Blank	<1.0	ug/l	
	1,4-Dichlorobenzene	Blank	<1.0	ug/l	
	Ethyl Benzene	Blank	<1.0	ug/l	
	2-Butanone (MEK)	Blank	<20.0	ug/l	
	MIBK	Blank	<10.0	ug/l	
	Naphthalene	Blank	<2.0	ug/l	
	Styrene	Blank	<1.0	ug/l	
	Tetrachloroethylene	Blank	<1.0	ug/l	
	Toluene	Blank	<1.0	ug/l	
	1,1,1-Trichloroethane	Blank	<1.0	ug/l	
	Trichloroethylene	Blank	<1.0	ug/l	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<5.0	ug/l	
	Trichlorofluoromethane	Blank	<2.0	ug/l	
	o-Xylene	Blank	<1.0	ug/l	
	m + p Xylene	Blank	<2.0	ug/l	
	1,2-Dichlorobenzene	Blank	<1.0	ug/l	
	1,3-Dichlorobenzene	Blank	<1.0	ug/l	
	1,1-Dichloroethane	Blank	<1.0	ug/l	
	1,1-Dichloroethylene	Blank	<1.0	ug/l	
	1,4-Dioxane	Blank	<50.0	ug/l	
	MTBE	Blank	<1.0	ug/l	
	trans-1,2-Dichloroethylene	Blank	<1.0	ug/l	
Vinyl Chloride	Blank	<2.0	ug/l		



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 3 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-122591	Methylene Chloride	Blank	<5.0	ug/l	
	Chlorobenzene	Blank	<1.0	ug/l	
	Chloromethane	Blank	<2.0	ug/l	
	Bromomethane	Blank	<2.0	ug/l	
	Chloroethane	Blank	<2.0	ug/l	
	cis-1,3-Dichloropropene	Blank	<0.5	ug/l	
	trans-1,3-Dichloropropene	Blank	<0.5	ug/l	
	Chlorodibromomethane	Blank	<0.5	ug/l	
	1,1,2-Trichloroethane	Blank	<1.0	ug/l	
	Bromoform	Blank	<1.0	ug/l	
	1,1,2,2-Tetrachloroethane	Blank	<0.5	ug/l	
	2-Chlorotoluene	Blank	<1.0	ug/l	
	Hexachlorobutadiene	Blank	<1.0	ug/l	
	Isopropylbenzene	Blank	<1.0	ug/l	
	p-Isopropyltoluene	Blank	<1.0	ug/l	
	n-Propylbenzene	Blank	<1.0	ug/l	
	sec-Butylbenzene	Blank	<1.0	ug/l	
	tert-Butylbenzene	Blank	<1.0	ug/l	
	1,2,3-Trichlorobenzene	Blank	<5.0	ug/l	
	1,2,4-Trichlorobenzene	Blank	<1.0	ug/l	
	1,2,4-Trimethylbenzene	Blank	<1.0	ug/l	
	1,3,5-Trimethylbenzene	Blank	<1.0	ug/l	
	Dibromomethane	Blank	<1.0	ug/l	
	cis-1,2-Dichloroethylene	Blank	<1.0	ug/l	
	4-Chlorotoluene	Blank	<1.0	ug/l	
	1,1-Dichloropropene	Blank	<2.0	ug/l	
	1,2-Dichloropropane	Blank	<1.0	ug/l	
	1,3-Dichloropropane	Blank	<0.5	ug/l	
	2,2-Dichloropropane	Blank	<1.0	ug/l	
	1,1,1,2-Tetrachloroethane	Blank	<1.0	ug/l	
	1,2,3-Trichloropropane	Blank	<2.0	ug/l	
	n-Butylbenzene	Blank	<1.0	ug/l	
	Dichlorodifluoromethane	Blank	<2.0	ug/l	
	Bromochloromethane	Blank	<1.0	ug/l	
	Bromobenzene	Blank	<1.0	ug/l	
	Acrylonitrile	Blank	<5.0	ug/l	
	Carbon Disulfide	Blank	<3.0	ug/l	
	2-Hexanone	Blank	<10.0	ug/l	
	trans-1,4-Dichloro-2-Butene	Blank	<2.0	ug/l	
	Diethyl Ether	Blank	<2.0	ug/l	
	Bromodichloromethane	Blank	<1.0	ug/l	
	1,2-Dibromo-3-Chloropropane	Blank	<5.0	ug/l	
	1,2-Dibromoethane	Blank	<0.50	ug/l	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 4 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-122591					
	Tetrahydrofuran	Blank	<10.0	ug/l	
	tert-Butyl Alcohol	Blank	<20.0	ug/l	
	Diisopropyl Ether	Blank	<0.5	ug/l	
	tert-Butylethyl Ether	Blank	<0.5	ug/l	
	tert-Amylmethyl Ether	Blank	<0.5	ug/l	
LFBLANK-84308					
	Acetone	Lab Fort Blank Amt.	100.0	ug/l	
		Lab Fort Blk. Found	87.5	ug/l	
		Lab Fort Blk. % Rec.	87.5	%	70-160
	Benzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.7	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.9	%	70-130
	Chloroform	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	10.1	ug/l	
		Lab Fort Blk. % Rec.	101.9	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	10.3	ug/l	
		Lab Fort Blk. % Rec.	103.3	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.5	ug/l	
		Lab Fort Blk. % Rec.	95.9	%	70-130
	Ethyl Benzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.8	%	70-130
	2-Butanone (MEK)	Lab Fort Blank Amt.	100.0	ug/l	
		Lab Fort Blk. Found	90.7	ug/l	
		Lab Fort Blk. % Rec.	90.7	%	40-160
	MIBK	Lab Fort Blank Amt.	100.0	ug/l	
		Lab Fort Blk. Found	90.3	ug/l	
		Lab Fort Blk. % Rec.	90.3	%	70-160
	Naphthalene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	8.3	ug/l	
		Lab Fort Blk. % Rec.	83.8	%	40-130
	Styrene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.5	ug/l	
		Lab Fort Blk. % Rec.	95.1	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.8	ug/l	
		Lab Fort Blk. % Rec.	98.4	%	70-160
	Toluene	Lab Fort Blank Amt.	10.0	ug/l	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 5 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-84308	Toluene	Lab Fort Blk. Found	9.5	ug/l	
		Lab Fort Blk. % Rec.	95.9	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	10.0	ug/l	
	Trichloroethylene	Lab Fort Blk. % Rec.	100.8	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blk. Found	9.2	ug/l	
		Lab Fort Blk. % Rec.	92.8	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
	o-Xylene	Lab Fort Blk. % Rec.	96.8	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	m + p Xylene	Lab Fort Blk. Found	9.7	ug/l	
		Lab Fort Blk. % Rec.	97.3	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.1	ug/l	
	1,3-Dichlorobenzene	Lab Fort Blk. % Rec.	91.6	%	70-130
		Lab Fort Blank Amt.	20.0	ug/l	
	1,1-Dichloroethane	Lab Fort Blk. Found	19.3	ug/l	
		Lab Fort Blk. % Rec.	96.6	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.2	ug/l	
	1,4-Dioxane	Lab Fort Blk. % Rec.	92.9	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	MTBE	Lab Fort Blk. Found	9.4	ug/l	
		Lab Fort Blk. % Rec.	94.6	%	70-130
	trans-1,2-Dichloroethylene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.8	ug/l	
	Vinyl Chloride	Lab Fort Blk. % Rec.	98.6	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.9	ug/l	
		Lab Fort Blk. % Rec.	99.0	%	70-130
		Lab Fort Blank Amt.	100.0	ug/l	
		Lab Fort Blk. Found	82.4	ug/l	
		Lab Fort Blk. % Rec.	82.4	%	40-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.8	ug/l	
		Lab Fort Blk. % Rec.	98.4	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	10.4	ug/l	
		Lab Fort Blk. % Rec.	104.7	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	8.4	ug/l	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 6 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-84308	Vinyl Chloride	Lab Fort Blk. % Rec.	84.3	%	40-160
		Lab Fort Blank Amt.	10.0	ug/l	
	Methylene Chloride	Lab Fort Blk. Found	9.7	ug/l	
		Lab Fort Blk. % Rec.	97.4	%	70-130
	Chlorobenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.5	ug/l	
	Chloromethane	Lab Fort Blk. % Rec.	95.8	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	Bromomethane	Lab Fort Blk. Found	7.9	ug/l	
		Lab Fort Blk. % Rec.	79.0	%	40-160
	Chloroethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	8.5	ug/l	
	cis-1,3-Dichloropropene	Lab Fort Blk. % Rec.	85.8	%	40-160
		Lab Fort Blank Amt.	10.0	ug/l	
	trans-1,3-Dichloropropene	Lab Fort Blk. Found	9.3	ug/l	
		Lab Fort Blk. % Rec.	93.1	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.8	ug/l	
	1,1,2-Trichloroethane	Lab Fort Blk. % Rec.	98.6	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
Bromoform	Lab Fort Blk. Found	10.1	ug/l		
	Lab Fort Blk. % Rec.	101.9	%	70-130	
1,1,2,2-Tetrachloroethane	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	9.5	ug/l		
2-Chlorotoluene	Lab Fort Blk. % Rec.	95.1	%	70-130	
	Lab Fort Blank Amt.	10.0	ug/l		
Hexachlorobutadiene	Lab Fort Blk. Found	9.7	ug/l		
	Lab Fort Blk. % Rec.	97.3	%	70-130	
Isopropylbenzene	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	8.9	ug/l		
	Lab Fort Blk. % Rec.	89.0	%	70-130	
	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	9.2	ug/l		
	Lab Fort Blk. % Rec.	92.5	%	70-130	
	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	9.3	ug/l		
	Lab Fort Blk. % Rec.	93.8	%	70-130	
	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	9.1	ug/l		
	Lab Fort Blk. % Rec.	91.4	%	70-130	
	Lab Fort Blank Amt.	10.0	ug/l		
	Lab Fort Blk. Found	9.7	ug/l		
	Lab Fort Blk. % Rec.	97.4	%	70-130	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 7 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-84308	p-Isopropyltoluene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.5	ug/l	
		Lab Fort Blk. % Rec.	95.7	%	70-130
	n-Propylbenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.1	%	70-130
	sec-Butylbenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.1	ug/l	
		Lab Fort Blk. % Rec.	91.6	%	70-130
	tert-Butylbenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.2	ug/l	
		Lab Fort Blk. % Rec.	92.1	%	70-130
	1,2,3-Trichlorobenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.4	ug/l	
		Lab Fort Blk. % Rec.	94.7	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.1	ug/l	
		Lab Fort Blk. % Rec.	91.6	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.4	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.7	ug/l	
		Lab Fort Blk. % Rec.	97.2	%	70-130
	Dibromomethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.3	ug/l	
		Lab Fort Blk. % Rec.	93.9	%	70-130
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.8	ug/l	
		Lab Fort Blk. % Rec.	98.4	%	70-130
	4-Chlorotoluene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.4	ug/l	
		Lab Fort Blk. % Rec.	94.9	%	70-130
	1,1-Dichloropropene	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	10.1	ug/l	
		Lab Fort Blk. % Rec.	101.4	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.2	ug/l	
		Lab Fort Blk. % Rec.	92.9	%	70-130
	1,3-Dichloropropane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
		Lab Fort Blk. % Rec.	96.8	%	70-130
	2,2-Dichloropropane	Lab Fort Blank Amt.	10.0	ug/l	



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

QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 8 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-84308	2,2-Dichloropropane	Lab Fort Blk. Found	10.0	ug/l	
		Lab Fort Blk. % Rec.	100.2	%	40-130
	1,1,1,2-Tetrachloroethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
	1,2,3-Trichloropropane	Lab Fort Blk. % Rec.	96.5	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	n-Butylbenzene	Lab Fort Blk. Found	8.9	ug/l	
		Lab Fort Blk. % Rec.	89.1	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	6.7	ug/l	
	Bromochloromethane	Lab Fort Blk. % Rec.	90.9	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	Bromobenzene	Lab Fort Blk. Found	9.8	ug/l	
		Lab Fort Blk. % Rec.	98.7	%	70-130
	Acrylonitrile	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.4	ug/l	
	Carbon Disulfide	Lab Fort Blk. % Rec.	94.6	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	2-Hexanone	Lab Fort Blk. Found	12.1	ug/l	
		Lab Fort Blk. % Rec.	121.9	%	70-130
	trans-1,4-Dichloro-2-Butene	Lab Fort Blank Amt.	100.0	ug/l	
		Lab Fort Blk. Found	87.5	ug/l	
	Diethyl Ether	Lab Fort Blk. % Rec.	87.5	%	70-160
		Lab Fort Blank Amt.	10.0	ug/l	
	Bromodichloromethane	Lab Fort Blk. Found	7.9	ug/l	
		Lab Fort Blk. % Rec.	79.7	%	70-130
	1,2-Dibromo-3-Chloropropane	Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.6	ug/l	
	1,2-Dibromoethane	Lab Fort Blk. % Rec.	96.8	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	9.3	ug/l	
		Lab Fort Blk. % Rec.	93.6	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
		Lab Fort Blk. Found	8.7	ug/l	
		Lab Fort Blk. % Rec.	87.4	%	70-130
		Lab Fort Blank Amt.	10.00	ug/l	
		Lab Fort Blk. Found	9.46	ug/l	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 9 of 10

QC Batch Number: GCMS/VOL-20273

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-84308	1,2-Dibromoethane	Lab Fort Blk. % Rec.	94.60	%	70-130
		Lab Fort Blank Amt.	10.0	ug/l	
	Tetrahydrofuran	Lab Fort Blk. Found	8.9	ug/l	70-130
		Lab Fort Blk. % Rec.	89.9	%	
	tert-Butyl Alcohol	Lab Fort Blank Amt.	100.0	ug/l	70-130
		Lab Fort Blk. Found	86.3	ug/l	
	Diisopropyl Ether	Lab Fort Blk. % Rec.	86.3	%	40-160
		Lab Fort Blank Amt.	10.0	ug/l	
	tert-Butylethyl Ether	Lab Fort Blk. Found	10.1	ug/l	70-130
		Lab Fort Blk. % Rec.	101.1	%	
	tert-Butylethyl Ether	Lab Fort Blank Amt.	10.0	ug/l	70-130
		Lab Fort Blk. Found	10.0	ug/l	
tert-Amylmethyl Ether	Lab Fort Blk. % Rec.	100.9	%	70-160	
	Lab Fort Blank Amt.	10.0	ug/l		
tert-Amylmethyl Ether	Lab Fort Blk. Found	9.9	ug/l	70-130	
	Lab Fort Blk. % Rec.	99.3	%		



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

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Report Date: 9/4/2008

Lims Bat #: LIMT-19090

Page 10 of 10

QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken through all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries



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AIR SAMPLE CHAIN OF CUSTODY RECORD

Limit # 19090

39 SPRUCE ST

EAST LONGMEADOW, MA 01028

Page 1 of 1

Company Name: LFR INC
Address: 300 METRO CENTER BLVD

Telephone: (413) 738-3887

Project # 081-12157-00

Client PO # _____

Attention: Donna Pallister

Project Location: SPRINGFIELD ST

Sampled By: CHRIS LINDSON

Proposal Provided? (For Billing purposes)

yes _____ proposal date

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT
 Fax #: _____
 Email: donna.pallister@lfr.com
 Format: EXCEL PDF GIS KEY OTHER _____

ANALYSIS REQUESTED				" Hg			Please fill out completely, sign, date and retain the yellow copy for your record.
				I	F	L	
				n	i	a	Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
				t	a	b	Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.
				i	i	R	Summa Canister ID
				p	n	P	Flow Controller ID
				r	a	r	
				e	s	e	
				s	s	S	
				s	s	S	
				u	s	S	
				r	s	S	
				e	u	S	
					r	S	

Field ID	Sample Description	Media	Lab #	Date Sampled		ONLY USE WHEN USING PUMPS				Matrix Code*	70-14	8260
				Start	Stop	Total	Flow Rate	Volume				
			08B	Date Time	Date Time	Minutes Sampled	M ³ /Min. or L / Min.	Liters or M ³				
	MPL-6		34201	8/26/08	12:50				SG	X		
	WB-2		34202	8/26/08	15:45				SG	X		
	ATC-1		34203	8/26/08	16:30				GW		X	
	ATC-4		34204	8/26/08	15:30				GW		X	
	ATC-5		34205	8/26/08	14:30				GW		X	
	TRIP BLANK		34206	8/26/08	—						X	

Laboratory Comments:

CLIENT COMMENTS:
 GW HCL present was 7 in total

Relinquished by: (signature) <u>[Signature]</u>	Date/Time: <u>8/26/08 18:10</u>	Turnaround ** <input type="checkbox"/> 7-Day <input type="checkbox"/> 10-Day <input checked="" type="checkbox"/> Other <u>TD</u> RUSH * <input type="checkbox"/> *24-Hr <input type="checkbox"/> *48-Hr <input type="checkbox"/> *72-Hr <input type="checkbox"/> *4-Day *Approval Required	Special Requirements Regulations: <u>RI-CB</u> Data Enhancement/RCP? <input type="checkbox"/> Y <input type="checkbox"/> N Enhanced Data Package <input type="checkbox"/> Y <input type="checkbox"/> N (Surcharge Applies) Required Detection Limits: _____ Other: _____	*Matrix Code: SG= SOIL GAS IA= INDOOR AIR AMB=AMBIENT SS = SUB SLAB D = DUP BL = BLANK O = other _____	**Media Codes: S=summa can TB=tedlar bag P=PUF T=tube F= filter C=cassette O = Other _____
Received by: (signature) <u>[Signature]</u>	Date/Time: <u>8/27/08 1600</u>				
Relinquished by: (signature) <u>[Signature]</u>	Date/Time: <u>8/27/08 1845</u>				
Received by: (signature) <u>[Signature]</u>	Date/Time: <u>8/27/08 1815</u>				

** TURNAROUND 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 IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

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

Sample Receipt Checklist

CLIENT NAME: LEP RECEIVED BY: KS DATE: 8/27/08

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) 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

Temperature °C by Temp blank 3°C Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter? Yes No
 Who was notified _____ Date _____ Time _____

6) Are there any samples "On Hold"? Yes No Stored where: _____

7) Are there any RUSH or SHORT HOLDING TIME samples? Yes No
 Who was notified _____ Date _____ Time _____

8) Location where samples are stored: 19B
 Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

Containers sent in to Con-Test

		# of containers			# of containers
1 Liter Amber			8 oz clear jar		
500 mL Amber			4 oz clear jar		
250 mL Amber (8oz amber)			2 oz clear jar		
1 Liter Plastic			Other glass jar		
500 mL Plastic			Plastic Bag / Ziploc		
250 mL plastic			Air Cassette		
40 mL Vial - type listed below	<u>7</u>		Brass Sleeves		
Colisure / bacteria bottle			Tubes		
Dissolved Oxygen bottle			Summa Cans	<u>2</u> <u>KS</u>	
Flashpoint bottle			Regulators		
Encore			Other	<u>2 tedlars</u>	

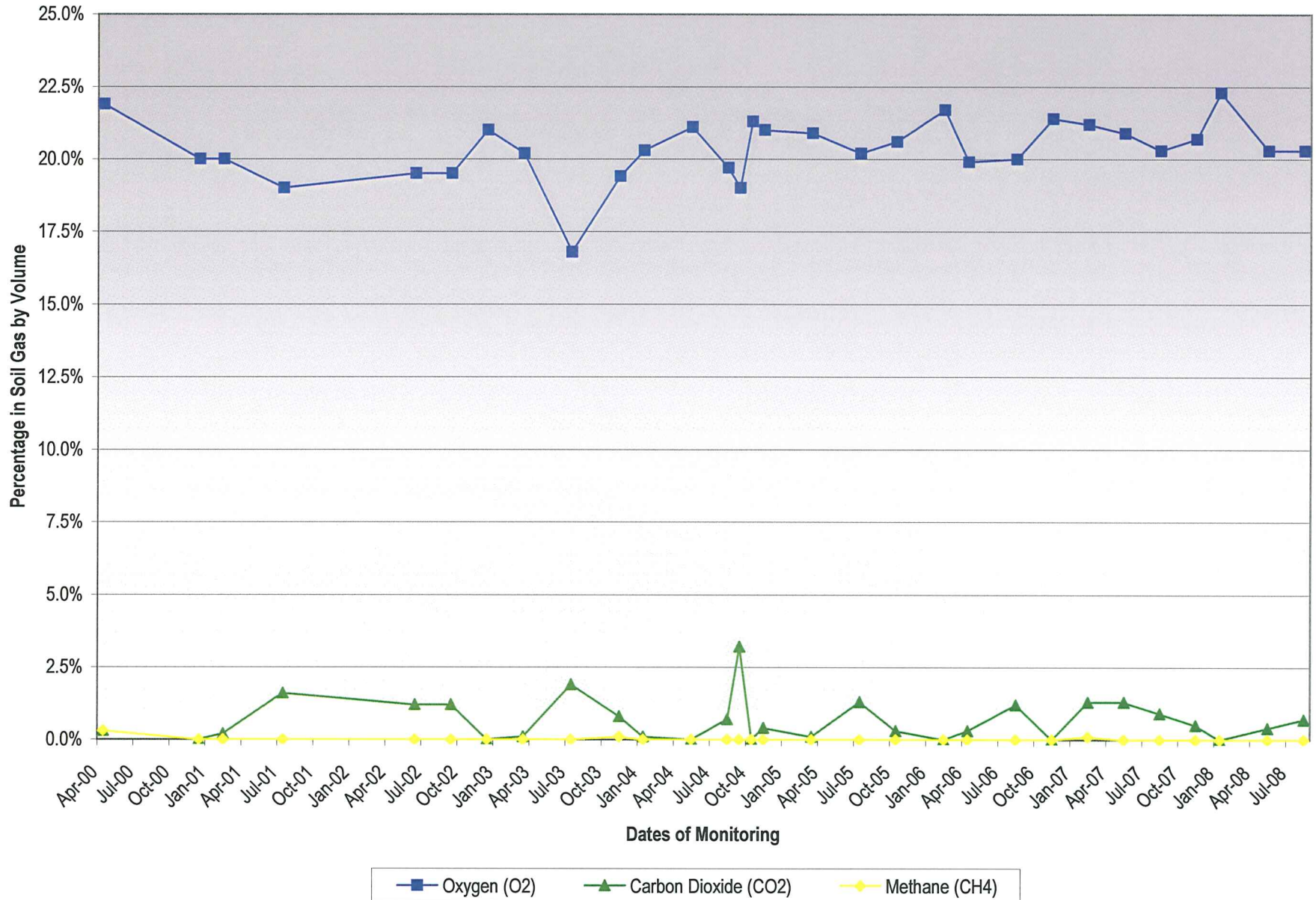
Laboratory Comments: _____

40 mL vials: # HCl 7 # Methanol _____
 # Bisulfate _____ # DI Water _____ Time and Date Frozen: _____
 # Thiosulfate _____ Unpreserved _____

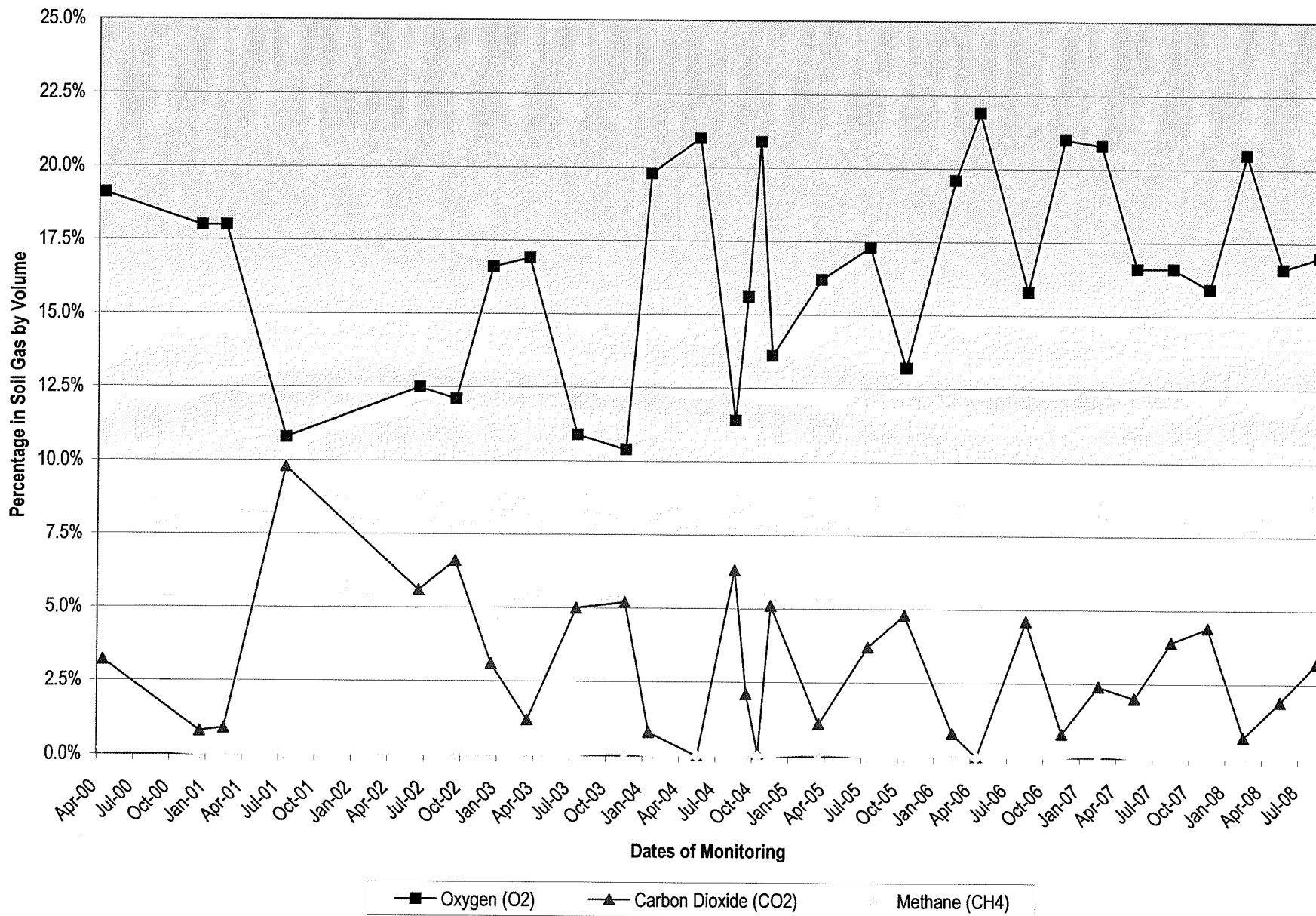
Do all samples have the proper pH: Yes No N/A

Attachment C
Soil Gas Graphs

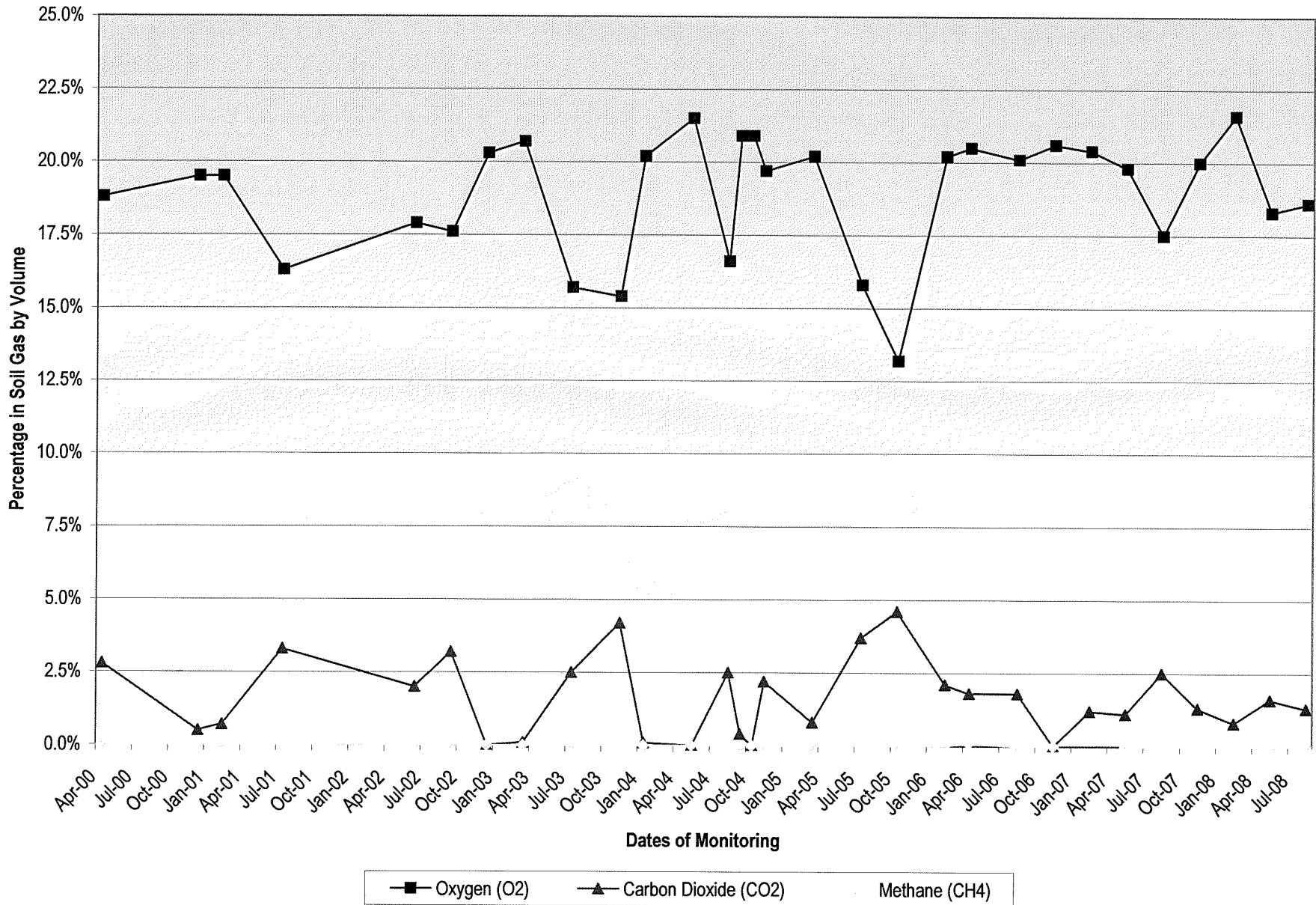
Soil Gas Well EPL1
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



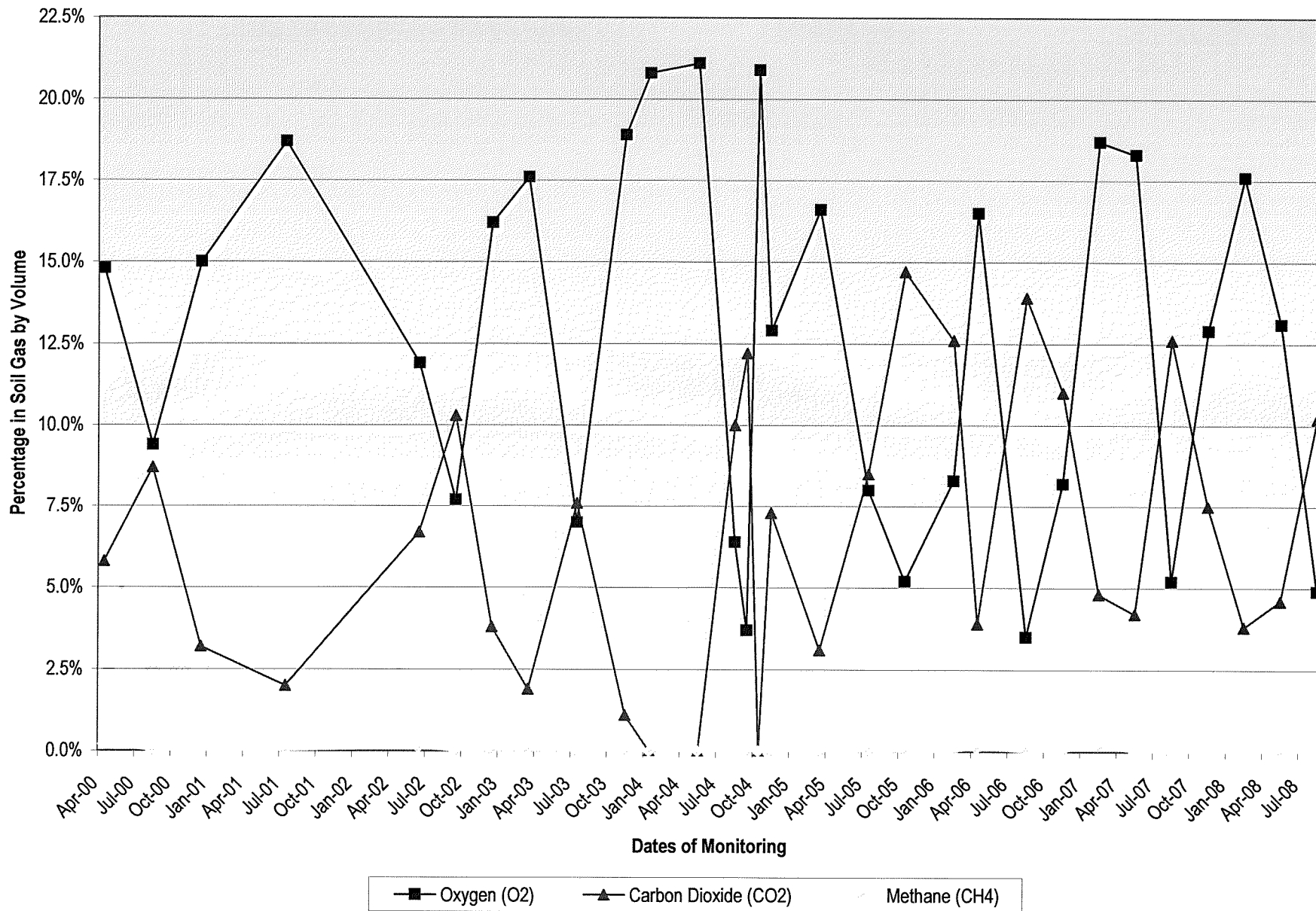
Soil Gas Well EPL4
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



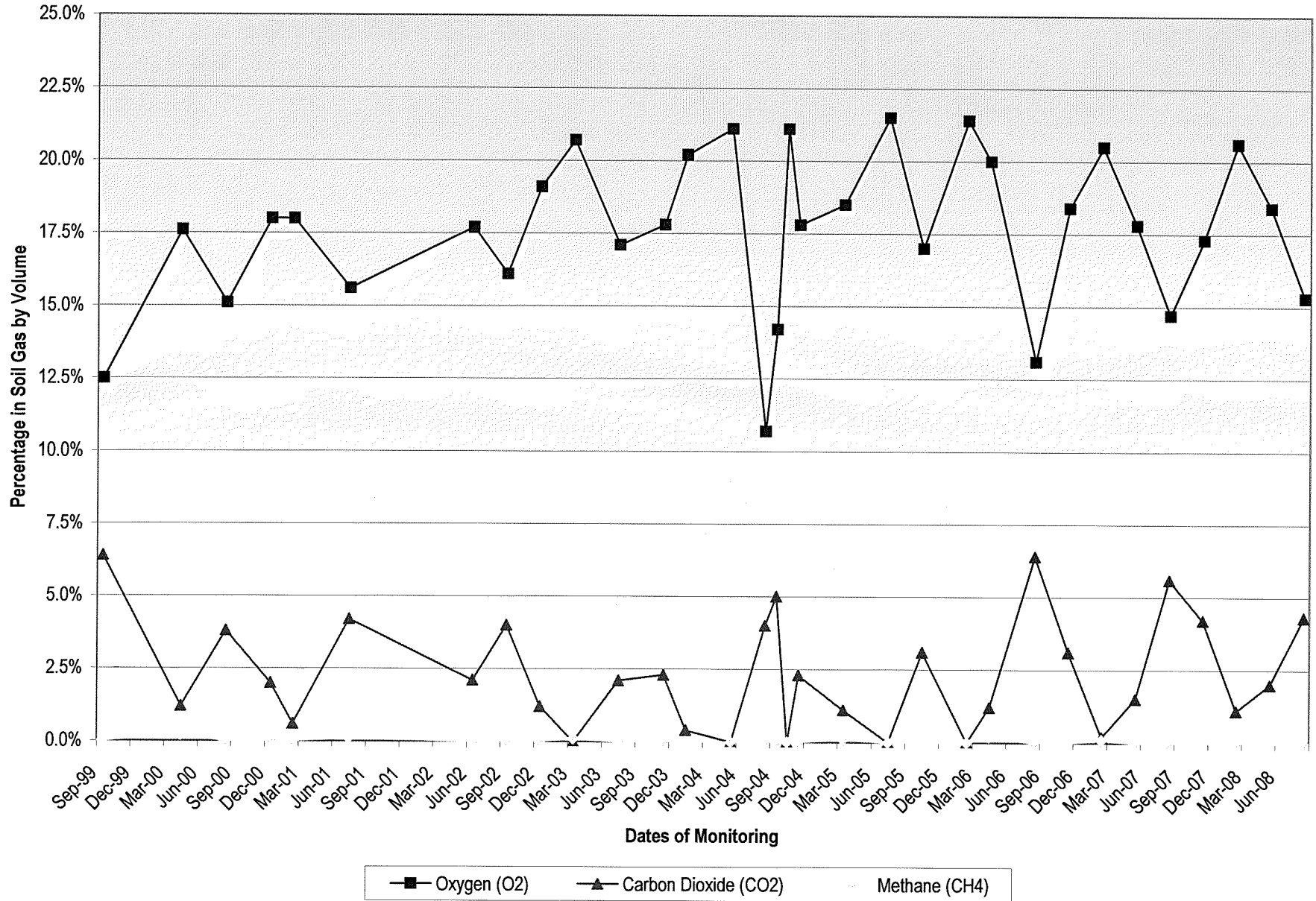
Soil Gas Well MG2
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



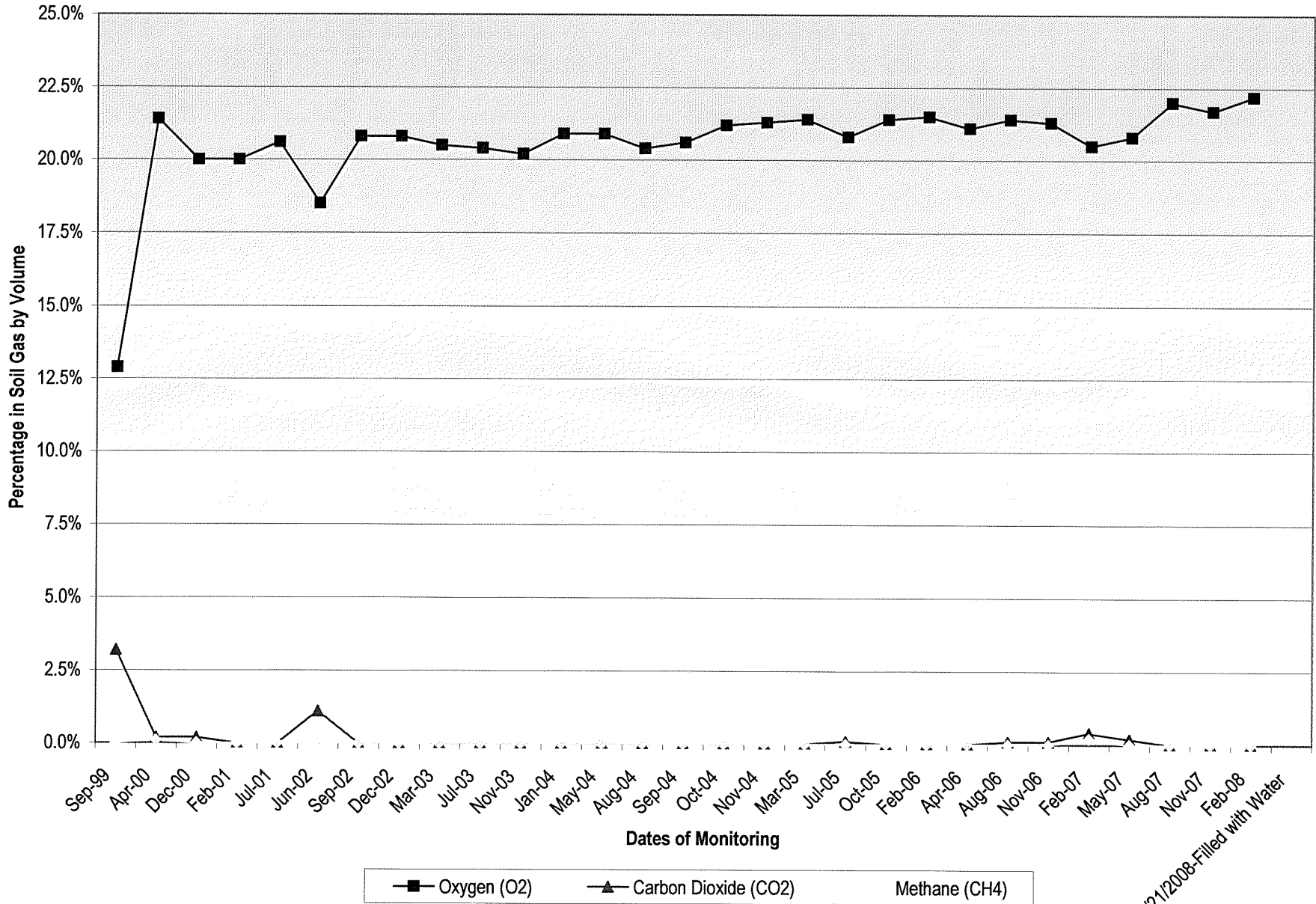
Soil Gas Well MPL5
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



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

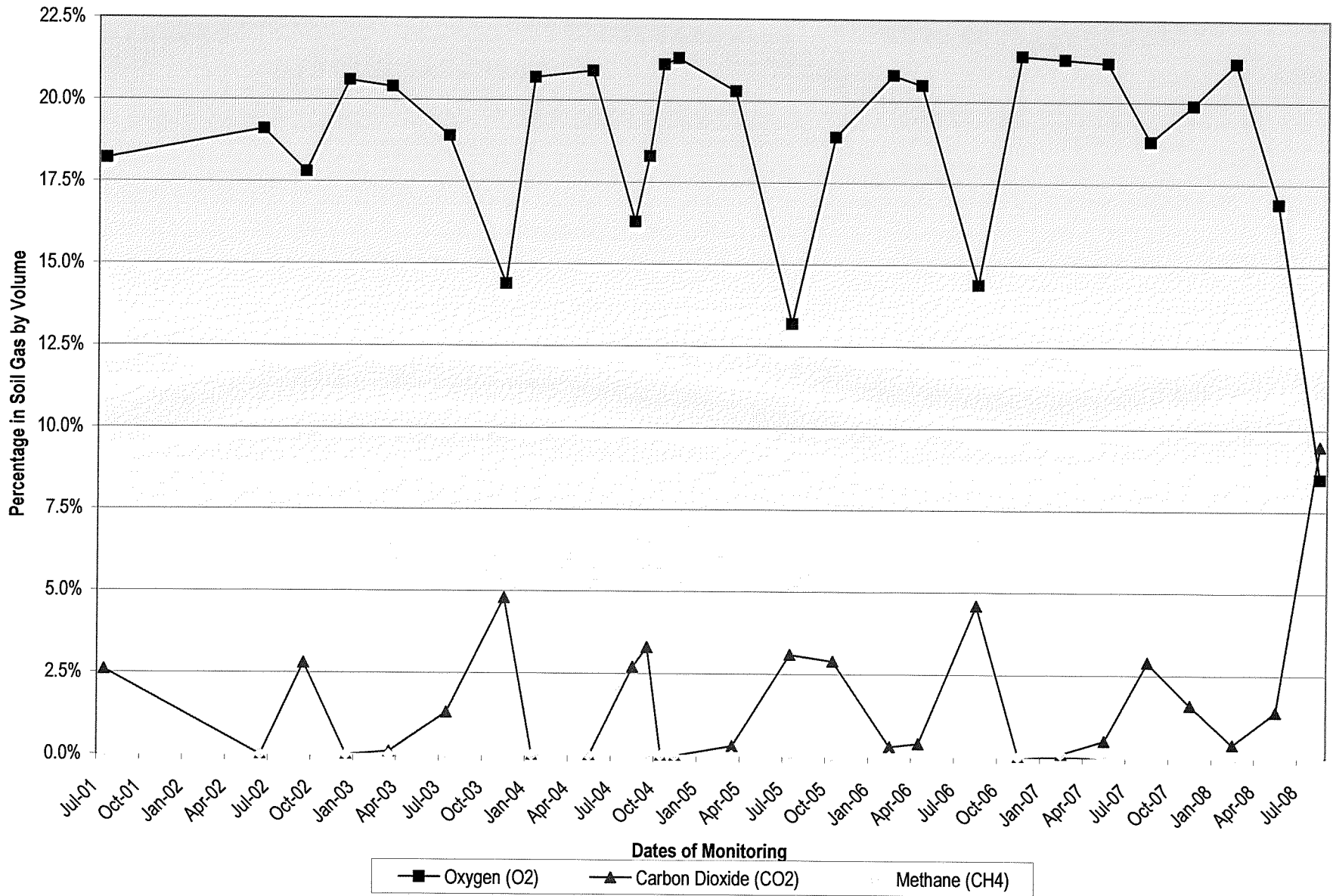


Soil Gas Well WB7
Fluctuation in Methane, Oxygen, and Carbon Dioxide Percentages over Time
Springfield Street School Complex
Providence, Rhode Island



5/21/2008-Filled with Water

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



Soil Gas Well MG2

