



October 31, 2013

Mr. Joseph T. Martella II, Senior Engineer
Rhode Island Department of Environmental Management
Office of Waste Management
Site Remediation Program
235 Promenade Street
Providence, Rhode Island 02908

**RE: Air Monitoring Report
Third Quarter, 2013
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
AMEC Project No. 3650080114**

Dear Mr. Martella:

This letter report presents the results of quarterly compliance sampling and analysis conducted by AMEC Environment and Infrastructure, Inc. (AMEC) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (the Site). The reporting period is from July 2013 through September 2013 and includes one quarterly compliance sampling event (September 06, 2013) and a re-sampling event on October 3, 2013.

The sampling, analysis and reporting are being conducted consistent with the Short Term Response Action Order of Approval dated July 24, 2008 and the Addendum to the Order of Approval dated August 7, 2008 (collectively referred to as the Orders of Approval).

Background

The active sub-slab depressurization (ASD) system, also called a vapor mitigation system, in the large retail space consists of four extraction wells connected to a 3 hp Rotron regenerative blower. The blower is located in an enclosure located at the north, or rear, of the large retail space.

The small retail spaces consist of the eastern, central, and western retail spaces (Figure 1). The mitigation systems in the small retail spaces consist of one extraction well in each space connected to an individual radon-type fan, located at the north, or rear, of each small retail space.

Small Retail Spaces

The quarterly monitoring event for the three small retail spaces, consistent with the requirements of the Orders of Approval, was completed on September 06, 2013.

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Table 1 summarizes the analytical results at the small retail spaces for the baseline sampling event conducted prior to system start-up and all subsequent sampling events conducted after system start-up. Results of the indoor air samples were compared to the Draft Connecticut Industrial/Commercial Indoor Target Air Concentrations (TAC), which were identified as action levels in the Orders of Approval. The laboratory report (13I0181) associated with the September 06, 2013 quarterly sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

The sampling event included an indoor air sample from each of the small retail spaces (locations IA-5, IA-6, and IA-7), one outdoor air reference sample (location AA-1), and one air sample collected from each of the three vapor extraction wells (EW-5, EW-6, and EW-7). The sampling locations are shown in Figure 1. The outdoor reference air sample (AA-1) was located north of the property, upwind of the small retail space. Sub-slab vacuum monitoring (pressure differential measurements) was also conducted at locations VMW-5, VMW-6, and VMW-7 in conjunction with the quarterly air sampling program. The vacuum monitoring results are tabulated in Table 2.

The following conclusions are based on Site observations and the data from Table 1.

Indoor air sample results from locations IA-5 and IA-6 were in compliance with action levels for the September 06, 2013 quarterly sampling event for all sampled constituents. There was one concentration of a Site-related VOC (PCE) above the action level of 5 ug/m³. The reported concentration of PCE in the indoor air sample at IA-7 was 5.5 ug/m³. This result has been determined to be an anomaly. There have been no concentrations of that magnitude in samples from location IA-7 since the operation of the SSD system began in 2009. Historically, in several of the samples from IA-7, PCE was not detected, and in all cases, detected concentrations were well below the action level of 5 ug/m³. The highest concentrations previously reported were 1.7 ug/m³ (sample dates of 2/17/11 and 9/13/12). On those dates, the outdoor (ambient) air samples were reported to contain 5.3 ug/m³ and 0.87 ug/m³ of PCE. This suggests that on those dates, the outdoor air may have been the source of the PCE detected in indoor air samples from location IA-7.

During the sampling on September 6, 2013, the vacuum measurements in the vicinity of location IA-7 indicated that the SSD system was operating effectively (negative pressure beneath the building). Also on that date, there is another indication that the detected PCE is not associated with the vapor intrusion pathway (and is likely associated with some other source or a laboratory artifact). In the sub-slab vapor extraction well EW-7, the PCE concentration (410 ug/m³) is lower than the TCE concentration (740 ug/m³). If there was on-going vapor intrusion, it would be expected that the ratio of PCE concentration to TCE concentration in indoor air samples would mirror the ratio from the sub-slab vapor extraction well. However, the indoor air data are not consistent with that expectation. Although the TCE concentration is higher than the PCE concentration in the subsurface, for the indoor air sample, the TCE concentration is approximately 10 times lower than the corresponding PCE concentration.



Although this detection was identified to be anomalous for the reasons stated above, it should be noted that the detected concentration does not pose a concern. The USEPA published a PCE Regional Screening Level for Industrial Indoor Air (assumed 40-hour workweek) in May 2013. The Industrial RSL is 18 ug/m³ (hazard quotient of 0.1). The RSLs are used to screen environmental data. In general, concentrations below the RSLs do not warrant further evaluation and are an indication that a chemical does not even need to be included in a risk assessment (because the risks are negligible). The Industrial RSL of 18 ug/m³, assuming a 40-hour workweek for 25 years, is associated with a cancer risk of 4×10^{-7} (below the RIDEM individual chemical risk limit of 1×10^{-6}) and a hazard quotient of 0.1 (well below the RIDEM individual chemical risk limit of 1). Therefore, even if the reported concentration of 5.5 ug/m³ was representative of long-term exposure (it is not based on the available data), the associated cancer risk would be negligible (1×10^{-7}) and the hazard quotient (0.03) would also be negligible.

As required by the Order of Approval, an e-mail notification of the exceedance was sent to Mr. Joe Martella of RIDEM on September 27, 2013. A resampling of this location was recommended to RIDEM to provide additional information concerning this anomalous PCE result for which the available information is not indicative of a vapor intrusion-related exceedance of the action level for PCE. The resampling took place on October 3, 2013. The event included an indoor air sample from location IA-7, an outdoor air reference sample (location AA-1), and an air sample collected from vapor extraction well EW-7. The laboratory report (13J0133) associated with the October 3, 2013 resampling sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

Results from the October 3, 2013 resampling event concluded that location IA-7 had a PCE result at 0.22 ug/m³ (well below the action level of 5 ug/m³). The ambient (outdoor) air sample had PCE at 0.30 ug/m³ (slightly higher than the indoor air sample). This suggests the detection indoors is associated with outdoor air entering the building and not a vapor intrusion pathway. This also confirms that the September 06, 2013 result was anomalous and not attributable to a VI condition.

Additional Site observations include:

- The eastern small retail space (indoor air sample location IA-5) remains unoccupied.
- The center small retail space (sample location IA-6) remains unoccupied.
- The western small retail space (sample location IA-7) is intermittently occupied.
- The mitigation systems are functioning as designed.

Large Retail Space

The quarterly monitoring event for the large retail space, consistent with the requirements of the Orders of Approval, was completed on September 06, 2013. Table 3 summarizes the analytical results for the large retail space for the baseline sampling event conducted prior to system start-up and all subsequent sampling events conducted after system start-up. Results of the indoor



air samples were compared to the Draft Connecticut Industrial/Commercial Indoor Target Air Concentrations (TAC), which were identified as action levels in the Orders of Approval. The laboratory report (13I0181) associated with the September 06, 2013 quarterly sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

The sampling event included collection of samples from each of the indoor air sampling points in the large retail space (locations IA-1 through IA-4), one outdoor air reference sample (location AA-1), and one air sample collected from the manifold where air from the four vapor extraction wells is collected (EW-Combined). The sampling locations are shown in Figure 1. The outdoor reference air sample (AA-1) was located at an outdoor upwind location. Sub-slab vacuum monitoring (pressure differential measurements) was also conducted at locations VMW-1 through VMW-4 in conjunction with the air sampling program. The vacuum monitoring results for the large retail space are tabulated in Table 4.

The following conclusions are based on Site observations and the data from Table 3.

- Indoor air sample results were in compliance with action levels for the September 2013 quarterly sampling event in the large retail space (sample locations IA-1 through IA-4).
- The mitigation system is functioning as designed and is achieving desired results with respect to indoor air quality in the large retail space.
- The large retail space was recently subdivided into two spaces. The eastern section is currently occupied by a health fitness club which opened in January of 2013. This space includes indoor air sample locations IA-2 and IA-4 and sub-slab vacuum monitoring well VMW-2.
- The western side of the large retail space remains vacant and includes indoor air locations IA-1 and IA-3, vapor extraction well (EW-5) and sub-slab vacuum monitoring VMW-1, VMW-3, and VMW-4.

ASD System Monitoring/Maintenance

The ASD system performance is monitored and maintained monthly by Clean Harbors Environmental Services. A reported system shutdown occurred on August 05, 2013. The system was down for a day. There was no identified cause for the alarm and associated shutdown. The alarm was successfully reset remotely by Clean Harbors and the system restarted the following day. There were two low flow conditions on radon fan 2 on August 12, 2013 for approximately 90 minutes and August 27, 2013 for approximately a day. There was no identified cause for the alarm and the alarm was successfully reset remotely by Clean Harbors. It is suspected that the current relay sensor for radon 2 was likely the cause for the alarm. Clean Harbors will continue to review during next maintenance visit.

Next Reporting Period

The next quarterly report (fourth quarter 2013) will include monitoring from October 2013 through December 2013. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDEM) in January 2014.

Please contact the undersigned at (978) 692-9090 if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
AMEC Environment & Infrastructure, Inc.



Mark Maggiore
Environmental Scientist



Charles Collet, P.E.
Senior Principal/Senior Project Manager

Enclosures: Table 1. Summary of Analytical Results – Air Sampling for Small Retail Spaces
Table 2. Vacuum Monitoring Results – Small Retail Spaces
Table 3. Summary of Analytical Results – Air Sampling for Large Retail Space
Table 4. Vacuum Monitoring Results – Large Retail Space

Figure 1 Vapor Mitigation Sample Locations

Appendix A – Laboratory Reports
Appendix B – Analytical Laboratory Detection Limits

cc: Stuart MacDonald, City of Providence
G. Simpson, Textron, Inc. (Electronic)
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Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Third Quarter, 2013
October 31, 2013



TABLES

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010
Methyl methacrylate																			
Methylene chloride	5.5	3.1	0.65	1.5	0.78	7.4	15	2.1	2.8	1.7	1.9	0.7 U	4.2	0.7 U	23	4.6	1.3	1.9	1.7
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.27	0.92	1.6	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.4	0.23	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Propylene (Propene)	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.09 U	0.09 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.34 U	0.34 U	0.73	0.77	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.52	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2	0.61	0.5	0.78	0.94	0.64	0.97
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1	1.4	1.2	1.5	2.2	1.2	1.2	1.6
Trichlorotrifluoroethane	0.68	0.53	0.5	0.47	0.64	0.48	0.51	0.27 U	0.64	0.67	0.56	0.47	0.49	0.45	0.46	0.54	0.49	0.55	0.54
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	
1,1,1,2-Tetrachloroethane											0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	
1,2,4-Trichlorobenzene	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.26 U	0.25 U	
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.066	0.061 U	0.046	0.14 U	0.14 U	0.057	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U													0	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.047	
1,3-Butadiene	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,4-Dioxane											0.18 U								0	
2-Butanone	0.88	1.5	1.4	2.4	2.3	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2	0.89	1.9	3.9	3.7	0.94	
2-Hexanone	0.2 U	0.29	0.29	0.49	0.49	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.17 U	0.063	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2.8	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.23	0.1	0.14 U	0.083	0.24	0.14 U	0.14 U	
Acetone	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12	
Benzene	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4	0.29	0.2	0.68	0.42	1	0.31	0.7	0.95	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	
Carbon disulfide	0.44	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U	1.1 U	
Carbon tetrachloride	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.1	
Chloromethane	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U	1.1	1.5	1.1	1	1.6	1.4	1.1	0.96	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	
Dichlorodifluoromethane	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	2	2.4	2.8	2.5	1.7	3	2	1.8	
Ethanol	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	6.7	
Ethyl acetate	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U	
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	
Hexachlorobutadiene	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	
Hexane	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81	
Isopropyl alcohol	0.8	0.73	0.69	1.6	0.79	0.25 U	0.29	2.4	1.2 U	4.9 U	0.6	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U	
m,p-Xylene	0.43 U	0.49	0.43 U	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.3 U	0.34	0.58	0.21	0.53	

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	
Methyl methacrylate							0.2 U	0.48	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	0.7 U	0.7 U	0.7 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	1.6	3	2.1	4.4	2.9	2.3	9.1	1	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	
n-Heptane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.2	0.15 U	0.24	
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.1	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052	
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.1 U	0.2 U	0.87	0.24 U	0.9	0.24 U	0.24 U	0.3	
Tetrahydrofuran	0.19	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.1 U	0.1 U	0.1 U	1.4	0.1 U	
Toluene	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11	
Trichlorofluoromethane	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.5	1.3	1.8	11	3.3	
Trichlorotrifluoroethane	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1	0.6	0.55	
Vinyl acetate	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.087 U	

Table 1
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space																	
	EW-5-020309 2/3/2009	EW-5-021109 2/11/2009	EW-5-021809 2/18/2009	EW-5-022609 2/26/2009	EW-5-030609 3/6/2009	EW-5-041409 4/14/2009	EW-5-051509 5/15/2009	EW-5-061109 6/11/2009	EW-5-091709 9/17/2009	EW-5-122909 12/29/2009	EW-5-032610 3/26/2010	EW-5-070110 7/1/2010	EW-5-091610 9/16/2010	EW-5-120710 12/7/2010	EW-5-021711 2/17/2011	EW-5-060211 6/2/2011	EW-5-091511 9/15/2011	EW-5-120811 12/8/2011
1,1,1-Trichloroethane	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210 D	400 D	340 D	430	130
1,1,1,2-Tetrachloroethane																	25 U	
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 UD	1.4 UD	6.9 UD	14 U	3.4 U
1,1,2-Trichloroethane	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 UD	1.1 UD	5.5 UD	11 U	2.7 U
1,1-Dichloroethane	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29 D	34 D	33 D	44	16
1,1-Dichloroethene	2500	290	130	190	61	160	160	160	98	30	18	21	15	13 D	15 D	11 D	14	5
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 UD	1.5 UD	7.4 UD	30 U	7.4 U
1,2,4-Trimethylbenzene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 U	3.8 U
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U
1,2-Dichloroethane	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 UD	0.81 UD	4 UD	8.1 U	2 U
1,2-Dichloropropane	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 UD	0.92 UD	4.6 UD	9.2 U	2.3 U
1,2-Dichlorotetrafluoroethane	7 U	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U					
1,3,5-Trimethylbenzene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U
1,3-Butadiene	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 UD	0.44 UD	2.2 UD	4.4 U	1.1 U
1,3-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U
1,4-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U
1,4-Dioxane																	7.2 U	
2-Butanone	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000 D	7200 BD	17000 D	13000	2700
2-Hexanone	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	82 UD	8.2 U	2 U
4-Ethyltoluene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U
4-Methyl-2-pentanone	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2 U
Acetone	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 BD	1800 BD	2200 BD	3400	710
Benzene	13	12	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2	5	4.2 D	4.5 D	4.2 D	6.4 U	2.8
Benzyl chloride	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	5.2 U	1 UD	1 UD	5.2 UD	10 U	2.6 U
Bromodichloromethane	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 UD	1.3 UD	6.7 UD	13 U	3.4 U
Bromoform	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 UD	2.1 UD	10 UD	21 U	5.2 U
Bromomethane	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.78 UD	0.78 UD	3.9 UD	7.8 U	1.9 U
Carbon disulfide	3.2 U	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12	14	8 D	15 D	22 D	62 U	13
Carbon tetrachloride	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	6.2 U	1.3 UD	1.3 UD	6.3 UD	13 U	1.2
Chlorobenzene	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 UD	0.92 UD	4.6 UD	9.2 U	2.3 U
Chloroethane	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1 D	3.4 D	2.6 UD	7.5	1.3 U
Chloroform	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U	4.8 U	1.1 D	1.2 D	4.9 UD	9.8 U	1.1
Chloromethane	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 UD	0.41 UD	2.1 UD	4.1 U	1 U
cis-1,2-Dichloroethene	2900	710	400	410	100	150	270	250	170	58	32	43	31	17 D	27 D	27 D	35	11
cis-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 U	2.3 U
Cyclohexane	3.4 U	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	3.4 U	0.69 UD	0.69 UD	3.4 UD	6.9 U	1.7 U
Dibromochloromethane	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 UD	1.7 UD	8.5 UD	17 U	4.3 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4 D	3.7 D	4.9 UD	9.9 U	2.8
Ethanol	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23 D	19 D	24 JD	150 U	12
Ethyl acetate	7.3 U	3.6 U	3.6 U	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	6.8	3.4 D	0.72 UD	3.8 D	7.2 U	3.6
Ethylbenzene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 U	2.2 U
Hexachlorobutadiene	22 U	22 U	22 U	22 U	5.4 U	220 U	11 U	11 U	5.3 U	11 U	22 U	5.3 U	11 U	2.1 UD	2.1 UD	11 UD	21 U	4.2
Hexane	5	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	7.1 U	1.4 UD	0.7 UD	3.5 UD	280 U	70 U
Isopropyl alcohol	190	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11 D	13 D	25 UD	200 U	49 U
m,p-Xylene	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 UD	1.7 UD	8.7 UD	17 U	4.3 U

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space																	
	EW-5-020309 2/3/2009	EW-5-021109 2/11/2009	EW-5-021809 2/18/2009	EW-5-022609 2/26/2009	EW-5-030609 3/6/2009	EW-5-041409 4/14/2009	EW-5-051509 5/15/2009	EW-5-061109 6/11/2009	EW-5-091709 9/17/2009	EW-5-122909 12/29/2009	EW-5-032610 3/26/2010	EW-5-070110 7/1/2010	EW-5-091610 9/16/2010	EW-5-120710 12/7/2010	EW-5-021711 2/17/2011	EW-5-060211 6/2/2011	EW-5-091511 9/15/2011	EW-5-120811 12/8/2011
Methyl methacrylate															0.82 UD	4.1 UD	8.2 U	2 U
Methylene chloride	7.8	7 U	9.6	7 U	12	720	21	15	7 U	25	14 U	8.6	7 U	1.4 UD	2 D	6.9 UD	69 U	4.2
Methyl-t-butyl ether	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 UD	0.72 UD	3.6 UD	7.2 U	1.8 U
n-Heptane	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2 U
o-Xylene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 U	2.2 U
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 UD	3.4 UD	17 UD	140 U	4.1
Styrene	4.2 U	17	4.2 U	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 UD	0.85 UD	4.3 UD	8.5 U	2.1 U
Tetrachloroethene	210	310	190	97	8	68 U	21	25	19	8.9	6.8 U	6.7	6.8 U	4 D	4100 D	6.8 UD	14 U	3.5
Tetrahydrofuran	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200 D	11000 D	30000 D	41000	11000
Toluene	13	4.7	3.8 U	3.8 U	0.95 U	38 U	2.2	3.4	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.75 UD	1.6 D	3.8 UD	7.5 U	0.9
trans-1,2-Dichloroethene	26	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	2 U	4 U	2 U	4 U	0.79 UD	0.79 UD	4 UD	7.9 U	2 U
trans-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 U	2.3 U
Trichloroethene	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410 D	660 D	790 D	940	290
Trichlorofluoromethane	3500	200	120	67	16	56 U	27	41	2.8 U	53	7	7.4	5.8	5.1 D	5.8 D	5.6 UD	11 U	3.4
Trichlorotrifluoroethane	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 U	3.8 U
Vinyl acetate	15 U	3.6 U	3.6 U	15 U	0.9 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	7.1 U	1.8 U	7.1 U	1.4 UD	0.7 UD	70 UD	7.0 U	1.8 U
Vinyl chloride	2.6 U	2.6 U	2.6 U	2.6 U	0.65 U	26 U	1.3 U	5.3	1.3 U	3	3.4	3.1	4.3	2.4 D	3.7 D	3.3 D	6.2	1.3 U

Table 1
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space							Extraction Well - Center Small Retail Space												
	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013	EW-5-090613 9/6/2013	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-021809 2/18/2009	EW-6-022609 2/26/2009	EW-6-030609 3/6/2009	EW-6-041409 4/14/2009	EW-6-051509 5/15/2009	EW-6-061109 6/11/2009	EW-6-091709 9/17/2009	EW-6-122909 12/29/2009	EW-6-070110 7/1/2010	EW-6-091610 9/16/2010	EW-6-120710 12/7/2010
1,1,1-Trichloroethane	81	100	190	0.55 U	0.55 U	59	180	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130 D
1,1,1,2-Tetrachloroethane	12 U	1.2 U	1.2 U	1.2 U		1.2 U	0.39 J													
1,1,2,2-Tetrachloroethane	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.32 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 UD
1,1,2-Trichloroethane	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.26 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	0.55 UD
1,1-Dichloroethane	11	12	21	0.40 U	0.4 U	6.4	20	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21 D
1,1-Dichloroethene	4.5	4.5	6.9	0.40 U	0.4 U	1.7	4.7	850	210	100	110	55	74	87	83	80	6.4	3.5	4 U	0.4 UD
1,2,4-Trichlorobenzene	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.35 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U	7.4 U	0.74 UD
1,2,4-Trimethylbenzene	4.9 U	0.2	0.63	0.49 U	0.49 U	0.49 U	0.37	5 U	5 U	5 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD
1,2-Dibromoethane (EDB)	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.36 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD
1,2-Dichlorobenzene	6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.28 U	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD
1,2-Dichloroethane	2 U	0.17	0.4 U	0.40 U	0.4 U	0.4 U	0.19 U	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.4 UD
1,2-Dichloropropane	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 UD
1,2-Dichlorotetrafluoroethane								7 U	7 U	7 U	7 U	7 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	
1,3,5-Trimethylbenzene	4.9 U	0.49 U	0.19	0.49 U	0.49 U	0.49 U	0.23 U	5 U	5 U	5 U	7.3	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD
1,3-Butadiene	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.1 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	1.1 U	2.2 U	0.22 UD
1,3-Dichlorobenzene	6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.28 U	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD
1,4-Dichlorobenzene	6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.28 U	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD
1,4-Dioxane																				
2-Butanone	1800	870	840	9.5	1.7	1900	31000	120	280	300	130	97	160	37	65	8.7	23	1800	110	20 D
2-Hexanone	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U	0.49	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.41 UD	
4-Ethyltoluene	4.9 U	0.49 U	0.18	0.49 U	0.49 U	0.49 U	0.23 U	5 U	5 U	5 U	5 U	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD
4-Methyl-2-pentanone	4.1 U	0.27	0.34	0.41 U	0.41 U	0.41 U	0.56	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 UD
Acetone	400	440	670	11	8.5	610	6800	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD
Benzene	2	1.1	3.7	0.54	0.47	1	7.1	5.2	5.2	4.1	3.2 U	3.2 U	32 U	1.7	1.6 U	1.6 U	1.6 U	1.6 U	3.2 U	0.92 D
Benzyl chloride	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.24 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	0.52 UD
Bromodichloromethane	3.4 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.31 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	0.67 UD
Bromoform	10 U	1 U	1 U	1.0 U	1 U	1 U	0.48 U	11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	1 UD
Bromomethane	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.18 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	0.39 UD
Carbon disulfide	11	25	49	3.1 U	3.1 U	19	77	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	180	1.6 U	1.6 U	1.6 U	1.6 U	8	12	0.66 D
Carbon tetrachloride	3.1 U	0.4	0.38	0.63 U	0.39	0.63 U	0.47	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	0.63 UD
Chlorobenzene	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 UD
Chloroethane	2.6 U	2.9	5.3	0.26 U	0.26 U	1.5	4	140	50	34	18	13	26 U	13	14	11	4	1.3 U	2.8	0.26 UD
Chloroform	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59	1.6	42	24	19	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4 D
Chloromethane	2.1 U	0.21 U	0.21 U	1	1.1	0.41 U	0.19 U	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	38	40	0.21 UD
cis-1,2-Dichloroethene	6.9	8.6	14	0.40 U	0.4 U	4.3	13	700	360	220	250	150	120	190	170	130	36	11	7.9	2.3 D
cis-1,3-Dichloropropene	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 UD
Cyclohexane	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.16 U	3.4 U	5.3	3.4 U	3.4 U	3.4 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	0.34 UD
Dibromochloromethane	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.4 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.85 UD
Dichlorodifluoromethane	4.9 U	2.9	2.6	2.5	2.5	2.1	1.7	5 U	5 U	5 U	5 U	5 U	50 U	3.6	3.9	2.7	2.5 U	2.5 U	5 U	2.3 D
Ethanol	290	14	100	9.9	3.5	13	3.5 U	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D
Ethyl acetate	26	4.2	30	0.36 U	1.2	2.6	0.17 U	7.3 U	3.6 U	3.6 U	7.3 U	3.6 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	0.36 UD
Ethylbenzene	4.3 U	0.12	0.69	0.43 U	0.43 U	0.43 U	0.41	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.43 UD
Hexachlorobutadiene	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.5 U	22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	5.3 U	11 U	1.1 UD
Hexane	9.4	4.3	2	0.74	2.2	14 U	6.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	7.1 U	0.7 UD
Isopropyl alcohol	13	9.8 U	11	1.1	9.8 U	9.8 U	4.6 U	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 UD
m,p-Xylene	5.4	0.87 U	1.9	0.75	0.87 U	0.87 U	1.2	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.87 UD

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space							Extraction Well - Center Small Retail Space												
	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013	EW-5-090613 9/6/2013	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-021809 2/18/2009	EW-6-022609 2/26/2009	EW-6-030609 3/6/2009	EW-6-041409 4/14/2009	EW-6-051509 5/15/2009	EW-6-061109 6/11/2009	EW-6-091709 9/17/2009	EW-6-122909 12/29/2009	EW-6-070110 7/1/2010	EW-6-091610 9/16/2010	EW-6-120710 12/7/2010
Methyl methacrylate	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.19 U													
Methylene chloride	15	11	2.5	1.8	6.9	1.1	3.4	7 U	7 U	7.5	7 U	7 U	780	12	15	7 U	27	10	7 U	1.3 D
Methyl-t-butyl ether	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.17 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	0.36 UD
n-Heptane	4.1 U	0.41 U	0.52	0.41 U	0.41 U	0.41 U	0.19 U	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 UD
o-Xylene	4.3 U	0.14	0.73	0.43 U	0.43 U	0.43 U	0.5	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.43 UD
Propylene (Propene)	15	6.9 U	3.9	6.9 U	6.9 U	6.9 U	2.3	3.5 U	1.8 U	1.8 U	3.5 U	1.8 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	8.7 U	6.9 U	0.69 UD
Styrene	4.3 U	0.46	0.38	0.43 U	0.43 U	0.43 U	0.35	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	42 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	0.43 UD
Tetrachloroethene	3.4 U	0.92	2.1	0.68 U	0.68 U	0.71	1.7	330	290	130	290	190	300	190	210	250	68	34	23	8.1 D
Tetrahydrofuran	4500	7700	1000	0.29 U	0.29 U	2300	26000	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480 D
Toluene	37	0.58	5.6	0.66	0.4	0.43	4.2	12	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	0.38 UD
trans-1,2-Dichloroethene	2 U	0.4 U	0.18	0.40 U	0.4 U	0.4 U	0.19 U	12	6.3	4.2	6.4	4 U	40 U	2.6	2.7	2	2.1	2 U	4 U	0.4 UD
trans-1,3-Dichloropropene	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 UD
Trichloroethene	170	220	400	0.54 U	0.54 U	150	770	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250 D
Trichlorofluoromethane	5.6 U	4.9	8.5	2.4	1.4	2.9	4.6	2300	870	630	350	250	150	230	440	700	320	6.7	25	28 D
Trichlorotrifluoroethane	3.8 U	0.77 U	0.57	0.77 U	0.61	0.77 U	0.64	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD
Vinyl acetate	7 U	0.7 U	0.7 U	0.70 U	0.7 U	7 U	3.3 U	15 U	3.6 U	3.6 U	15 U	3.6 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	1.8 U	7.1 U	0.7 UD
Vinyl chloride	1.3 U	2.9	4.7	0.26 U	0.26 U	0.26 U	3.5	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	26 U	1.3 U	1.3 U	1.3 U	1.3 U	1.7	2.9	0.26 UD

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Center Small Retail Space											Extraction Well - Western Small Retail Space											EW-7-070110 7/1/2010
	EW-6-021711 2/17/2011	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	EW-6-030812 3/8/2012	EW-6-061412 6/14/2012	EW-6-0913412 9/13/2012	EW-6-010313 1/3/2013	EW-6-031513 3/15/2013	EW-6-060713 6/7/2013	EW-6-090613 9/6/2013	EW-7-020309 2/3/2009	EW-7-021109 2/11/2009	EW-7-021809 2/18/2009	EW-7-022609 2/26/2009	EW-7-030609 3/6/2009	EW-7-041409 4/14/2009	EW-7-051509 5/15/2009	EW-7-061109 6/11/2009	EW-7-091709 9/17/2009	EW-7-122909 12/29/2009	EW-7-032610 3/26/2010	
1,1,1-Trichloroethane	0.55 UD	80	230	33	0.27 U	75	0.55 U	0.55 U	0.55 U	4.3	71	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250
1,1,1,2-Tetrachloroethane			25 U		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U												
1,1,2,2-Tetrachloroethane	0.69 UD	6.9 U	14 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U
1,1,2-Trichloroethane	0.55 UD	5.5 U	11 U	2.7 U	0.27 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U		5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U
1,1-Dichloroethane	0.4 UD	12	27	6.4	0.2 U	9.6	0.4 U	0.40 U	0.4 U	0.78	13	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320
1,1-Dichloroethene	0.4 UD	4 U	7.9 U	2 U	0.2 U	0.84	0.4 U	0.40 U	0.4 U	0.4 U	1.1	14	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81
1,2,4-Trichlorobenzene	0.74 UD	7.4 U	30 U	7.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.26	0.6	0.49 U	0.49 U	0.49 U	0.59	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U
1,2-Dibromoethane (EDB)	0.77 UD	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U
1,2-Dichlorobenzene	0.6 UD	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U		6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U
1,2-Dichloroethane	0.4 UD	4 U	8.1 U	2 U	0.2 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.14 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U
1,2-Dichloropropane	0.46 UD	4.6 U	9.2 U	2.3 U	0.23 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane												7 U	1.4 U	1.8 U	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U
1,3,5-Trimethylbenzene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.3	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U
1,3-Butadiene	0.22 UD	2.2 U	4.4 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U		2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	0.22 U	0.22 U
1,3-Dichlorobenzene	0.6 UD	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.21 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U
1,4-Dichlorobenzene	0.6 UD	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.21 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U
1,4-Dioxane			7.2 U																				
2-Butanone	1.9 BD	59 U	240 U	13	2.1	200	3.7	0.84	1.9	120	95	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8
2-Hexanone	0.41 UD	82 U	8.2 U	2 U	0.41 U	0.7	0.52	0.41 U	0.41 U	0.41 U	0.38	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	1
4-Ethyltoluene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.28	0.49 U	0.49 U	0.49 U	0.17 U	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U
4-Methyl-2-pentanone	0.41 UD	4.1 U	8.2 U	2 U	0.41 U	0.35	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U
Acetone	15 BD	48 U	190 U	21	9.9	36	25	6.4	6.3	42	35	580	38	58	30	24	15	24	24	7.9	49	26	25
Benzene	1.1 D	3.2 U	6.4 U	1.6 U	0.31	1.2	0.77	0.39	0.4	0.32 U	1.2	3.2 U	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7
Benzyl chloride	0.52 UD	5.2 U	10 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U		5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U
Bromodichloromethane	0.67 UD	6.7 U	13 U	3.4 U	0.34 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U
Bromoform	1 UD	10 U	21 U	5.2 U	1 U	1 U	1 U	1.0 U	1 U	1 U	0.36 U	11 U	2.1 U	2.6 U	2.6 U	2.6 U	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U	1.1 U
Bromomethane	0.39 UD	3.9 U	7.8 U	1.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U
Carbon disulfide	0.31 UD	11 D	62 U	7.1	3.1 U	29	3.1 U	3.1 U	3.1 U	0.35	74	5.7	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93
Carbon tetrachloride	0.63 UD	6.3 UD	13 U	3.1 U	0.39	0.34	0.4	0.63 U	0.23	0.63 U	0.48	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U
Chlorobenzene	0.46 UD	4.6 UD	9.2 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U
Chloroethane	0.26 UD	2.6 UD	5.3 U	1.3 U	0.26 U	1.4	0.26 U	0.26 U	0.26 U	0.26 U	1.7	170	150	88	41	33	7.1	9.6	10	8.1	6.5	1.6	2.2
Chloroform	0.49 UD	4.9 UD	9.8 U	1	0.36	0.92	0.21	0.49 U	0.49 U	0.49 U	1.7	4.8 U	1	1.2 U	1.3	1.2 U	4.8 U	2.7	2.6	4.6	2.7	1.1	4.2
Chloromethane	1 D	16 D	45	2.9	1.5	7.8	1.3	1.1	1.2	1.3	35	2 U	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	0.4 UD	4 UD	7.9 U	0.83	0.2 U	2.8	0.4 U	0.40 U	0.4 U	0.4 U	U	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660
cis-1,3-Dichloropropene	0.45 UD	4.5 UD	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U
Cyclohexane	0.34 UD	3.4 UD	6.9 U	1.7 U	0.34 U	0.34 U	0.49	0.34 U	0.34 U	0.34 U	0.12 U	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U
Dibromochloromethane	0.85 UD	8.5 UD	17 U	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U
Dichlorodifluoromethane	3.6 D	4.9 UD	9.9 U	3	2.2	2.9	2.9	2.6	2.5	2.3	1.3	5 U	2.5	3.2	770	2.6	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2
Ethanol	11 D	38 UD	150 U	38 U	29	5.8	68	8.6	3.5	13	14	350	26	29	17	15	3.8 U	19	18	12	18	37	31
Ethyl acetate	0.36 UD	3.6 UD	7.2 U	1.8 U	0.52	1.2	24	0.36 U	0.36 U	0.94	0.13 U	7.3 U	0.72 U	0.9 U	1.9 U	0.9 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U
Ethylbenzene	0.43 UD	4.3 UD	8.7 U	2.2 U	0.43 U	0.18	0.66	0.43 U	0.43 U	0.43 U	0.38	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U
Hexachlorobutadiene	1.1 UD	11 UD	21 U	5.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U		22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	11 U	11 U	2.2 U	1.1 U
Hexane	1.3 D	3.5 UD	280 U	70 U	1.4	1.2	7.6	14. U	0.6	1.6	0.89	10	10	7.6	5.5	3.1	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97
Isopropyl alcohol	2.9 D	25 UD	200 U	49 U	1.3	9.8 U	7.6	0.69	9.8 U	9.8 U	3.4 U	210	18	21	12	8.5	5 U	12	17	2.5 U	2.5 U	80	2.2
m,p-Xylene	0.94 D	8.7 UD	17 U	4.3 U	0.87 U	0.24	1.9	0.87 U	0.87 U	0.87 U	0.76	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	1.4	0.93

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Center Small Retail Space											Extraction Well - Western Small Retail Space											
	EW-6-021711 2/17/2011	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	EW-6-030812 3/8/2012	EW-6-061412 6/14/2012	EW-6-0913412 9/13/2012	EW-6-010313 1/3/2013	EW-6-031513 3/15/2013	EW-6-060713 6/7/2013	EW-6-090613 9/6/2013	EW-7-020309 2/3/2009	EW-7-021109 2/11/2009	EW-7-021809 2/18/2009	EW-7-022609 2/26/2009	EW-7-030609 3/6/2009	EW-7-041409 4/14/2009	EW-7-051509 5/15/2009	EW-7-061109 6/11/2009	EW-7-091709 9/17/2009	EW-7-122909 12/29/2009	EW-7-032610 3/26/2010	EW-7-070110 7/1/2010
Methyl methacrylate	0.41 UD	4.1 UD	8.2 U	2 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U												
Methylene chloride	2.8 D	6.9 UD	69 U	3.6	4.8	2.5	14	2.1	1.4	3.8	0.84	9.3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4
Methyl-t-butyl ether	0.36 UD	3.6 UD	7.2 U	1.8 U	0.36 U	0.36 U	0.13	0.36 U	0.36 U	0.36 U	0.13 U	3.6 U	3.5	2.9	4.9	3.1	3.6 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U
n-Heptane	0.41 UD	4.1 UD	8.2 U	2 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.45	4 U	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U
o-Xylene	0.43 UD	4.3 UD	8.7 U	2.2 U	0.43 U	0.16	0.73	0.43 U	0.43 U	0.43 U	0.37	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.65	0.44 U
Propylene (Propene)	1.7 UD	17 UD	140 U	3.8	6.9 U	2.8	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	3.5 U	160	110	0.87 U	0.45 U	3.5 U	0.9 U	0.9 U	3.5 U	3.5 U	0.69 U	1.8 U
Styrene	0.43 UD	4.3 UD	8.5 U	2.1 U	0.43 U	0.2	0.35	0.43 U	0.43 U	0.43 U	0.28	4.2 U	0.84 U	1.1 U	1.1 U	1.1 U	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	0.42 U	0.67
Tetrachloroethene	1.2 D	6.8 UD	17	2.4	0.76	4.6	0.88	0.68 U	0.68 U	0.68 U	8.3	66	69	56	84	69	40	140	230	410	130	74	510
Tetrahydrofuran	0.29 UD	13000 D	32000	3900	3.7	8100	0.29 U	0.29 U	0.27	58	35000	41	23	12	14	7.5	3 U	5.6	15	4.1	1.5 U	2800	0.7
Toluene	2.4 D	3.8 UD	9.8	1.9 U	0.36	0.7	5.3	0.46	0.31	0.5	2.5	14	2.9	3.6	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4	4.8
trans-1,2-Dichloroethene	0.4 UD	4 UD	7.9 U	2 U	0.2 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.14 U	150	140	90	90	80	48	120	140	150	84	22	120
trans-1,3-Dichloropropene	0.45 UD	4.5 UD	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	
Trichloroethene	0.54 UD	190 D	390	66	0.27 U	180	0.21	0.54 U	0.54 U	5.7	150	230	210	180	180	200	110	330	420	920	420	190	690
Trichlorofluoromethane	1.7 D	11 D	34	11	1	15	2	1.9	1.3	4.7	6.2	1800	1400	900	690	640	190	310	660	1400	620	210	690
Trichlorotrifluoroethane	0.86 D	7.7 UD	15 U	3.8 U	0.38 U	0.77 U	0.6	0.77 U	0.63	0.77 U	0.72	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U
Vinyl acetate	0.35 UD	70 UD	7.0 U	1.8 U	0.7 U	0.7 U	0.7 U	0.70 U	0.7 U	7 U	2.5 U	15 U	0.72 U	0.9 U	3.6 U	0.9 U	15 U	1.8 U	1.8 U	7.1 U	3.6 U	0.71 U	0.36 U
Vinyl chloride	0.26 UD	2.6 UD	5.1 U	1.3 U	0.13 U	1.5	0.26 U	0.26 U	0.26 U	0.26 U	2.2	280	370	180	48	21	2.6 U	2.7	3.2	1.3 U	1.6	1	0.26 U

Table 1
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Western Small Retail Space													
	EW-7-091610 9/16/2010	EW-7-120710 12/7/2010	EW-7-021711 2/17/2011	EW-7-060211 6/2/2011	EW-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 1/3/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013
1,1,1-Trichloroethane	290	160 D	110 D	5.5 UD	110	66	11	47	95	0.55 U	3.1	15	76	52
1,1,1,2-Tetrachloroethane					2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U
1,1,2,2-Tetrachloroethane	0.68 U	0.69 UD	0.69 UD	6.9 UD	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U
1,1,2-Trichloroethane	0.54 U	0.55 UD	0.55 UD	5.5 UD	1.1 U	0.55 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U
1,1-Dichloroethane	340	220 D	150 D	45 D	150	80	6.4	42	100	0.40 U	2	7	51	25
1,1-Dichloroethene	0.94	0.63 D	0.4 UD	4 UD	0.79 U	0.13	2 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.14 U	0.4 U
1,2,4-Trichlorobenzene	0.74 U	0.74 UD	0.74 UD	7.4 UD	3.0 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U
1,2,4-Trimethylbenzene	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.32	4.9 U	0.32	0.97	0.92	0.3	0.49 U	0.5	0.77
1,2-Dibromoethane (EDB)	0.76 U	0.77 UD	0.77 UD	7.7 UD	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U
1,2-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U
1,2-Dichloroethane	0.4 U	0.4 UD	0.4 UD	4 UD	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.40 U	0.4 U	0.4 U	0.14 U	0.4 U
1,2-Dichloropropane	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U
1,2-Dichlorotetrafluoroethane	0.7 U													0
1,3,5-Trimethylbenzene	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U	4.9 U	0.49 U	0.5	0.49 U	0.49 U	0.49 U	0.24	0.32
1,3-Butadiene	0.22 U	0.22 UD	0.22 UD	2.2 UD	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U
1,3-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.21 U	0.6 U
1,4-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.60 U	0.6 U	0.6 U	0.21 U	0.6 U
1,4-Dioxane					0.72 U									0
2-Butanone	1.8	4.1 D	5.3 BD	59 UD	24 U	6.2	100	14	3.6	18	210	99	12	8.5
2-Hexanone	0.4 U	0.41 UD	0.41 UD	82 UD	0.82 U	0.14	4.1 U	0.28	0.64	0.41 U	0.39	0.41 U	0.51	0.41 U
4-Ethyltoluene	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U	4.9 U	0.49 U	0.21	0.49 U	0.49 U	0.49 U	0.17 U	0.27
4-Methyl-2-pentanone	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.13	4.1 U	1.6	0.31	0.55	0.41 U	0.41 U	0.14 U	0.41 U
Acetone	12	42 BD	35 BD	48 UD	23	12	46	31	17	23	55	28	24	35
Benzene	2.1	1.4 D	1.6 D	3.2 UD	2.5	1.6	3.2 U	1.5	1.2	0.89	0.54	0.61	1.9	1.9
Benzyl chloride	0.52 U	0.52 UD	0.52 UD	5.2 UD	1.0 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U
Bromodichloromethane	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 U	0.67 U	3.4 U	3.2	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U
Bromoform	1.1 U	1 UD	1 UD	10 UD	2.1 U	1 U	10 U	1 U	1 U	1.0 U	1 U	1 U	0.36 U	1 U
Bromomethane	0.38 U	0.39 UD	0.39 UD	3.9 UD	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U
Carbon disulfide	0.9	0.78 D	0.31 UD	3.1 UD	6.2 U	3.1 U	31 U	0.41	3.1 U	3.1 U	0.57	7.4	0.42	3.1 U
Carbon tetrachloride	0.62 U	0.63 UD	0.63 UD	6.3 UD	1.3 U	0.34	3.1 U	0.3	0.33	0.78	0.47	0.63 U	0.38	0.4
Chlorobenzene	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U
Chloroethane	3.6	2 D	0.26 UD	2.6 UD	1.9	0.26 U	2.6 U	0.82	0.26 U	0.26 U	0.26 U	0.92	0.093 U	0.61
Chloroform	4.4	3.9 D	3 D	4.9 UD	5	3.8	2.4 U	3.1	4.1	0.49 U	0.36	2	6.6	2.7
Chloromethane	0.2 U	0.21 UD	0.21 UD	2.1 UD	0.41 U	0.21 U	2.1 U	0.21 U	0.21 U	1.4	0.21 U	0.41 U	0.14 U	0.41 U
cis-1,2-Dichloroethene	490	350 D	250 D	65 D	210	99	5.1	53	120	0.40 U	1.4	5.1	54	24
cis-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U
Cyclohexane	0.41	0.34 UD	0.34 UD	3.4 UD	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U
Dibromochloromethane	0.86 U	0.85 UD	0.85 UD	8.5 UD	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U
Dichlorodifluoromethane	1.5	2.1 D	0.49 UD	4.9 UD	2.7	2.6	4.9 U	3	0.49 U	2.7	2.5	2	1.5	0.49 U
Ethanol	1.9 U	1.9 UD	18 D	38 UD	22	23	160	31	140	1200	27	22	14	30
Ethyl acetate	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U	11	0.63	0.36 U	0.36 U	3	3.6	0.13 U	0.36 U
Ethylbenzene	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.26	4.3 U	0.21	0.47	0.44	0.13	0.43 U	0.44	0.56
Hexachlorobutadiene	1.1 U	1.1 UD	1.1 UD	11 UD	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U
Hexane	0.71 U	0.87 D	0.35 UD	3.5 UD	28 U	14 U	4	0.55	14 U	1.5	3.5	0.78	0.9	0.9
Isopropyl alcohol	2.6	2.8 D	0.25 UD	2.5 UD	30	9.8 U	98 U	14	9.8 U	12	9.8 U	9.8 U	3.4 U	17
m,p-Xylene	1	0.87 UD	0.87 UD	8.7 UD	1.7 U	0.82	8.7 U	0.45	1.3	1.5	0.33	0.5	1	1.5

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Western Small Retail Space													
	EW-7-091610 9/16/2010	EW-7-120710 12/7/2010	EW-7-021711 2/17/2011	EW-7-060211 6/2/2011	EW-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 1/3/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013
Methyl methacrylate			0.41 UD	4.1 UD	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U
Methylene chloride	0.81	1.9 D	2.4 D	6.9 UD	6.9 U	1.5	33	2.1	5.4	5.6	10	1.5	1.7	1.7
Methyl-t-butyl ether	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U
n-Heptane	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.22	4.1 U	0.49	0.75	0.41 U	0.41 U	0.41 U	0.59	1.1
o-Xylene	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.38	4.3 U	0.18	0.52	0.51	0.15	0.43 U	0.4	0.73
Propylene (Propene)	0.69 U	0.69 UD	1.7 UD	17 UD	14 U	6.9 U	13	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U
Styrene	0.47	0.43 UD	0.43 UD	4.3 UD	0.85 U	0.49	4.3 U	0.66	0.41	0.43 U	0.14	0.43 U	0.41	0.45
Tetrachloroethene	610	190 D	110 D	120 D	450	170	5.6	130	200	1.3	3	100	410	150
Tetrahydrofuran	18	6.1 D	2.7 D	3900 D	7.9	9.9	1000	13	1.1	8.2	120	2000	10	4.6
Toluene	2.2	0.47 D	0.88 D	3.8 UD	1.9	1.1	8.1	1.1	1.9	1.6	0.63	1.1	3.1	6.5
trans-1,2-Dichloroethene	110	78 D	58 D	4 UD	82	54	3.8	37	45	0.40 U	2.1	7.1	64	32
trans-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U
Trichloroethene	730	440 D	310 D	260 D	680	310	53	320	450	1.1	17	170	740	350
Trichlorofluoromethane	700	530 D	740 D	330 D	2500	1000	180	1300	2000	3.5	91	280	1500	990
Trichlorotrifluoroethane	0.76 U	0.89 D	0.77 UD	7.7 UD	1.5 U	1	3.8 U	0.78	0.57	0.77 U	0.71	0.77 U	1.1	1.1
Vinyl acetate	0.71 U	0.7 UD	0.35 UD	70 UD	0.70 U	0.35 U	7 U	2.2	0.7 U	0.70 U	0.7 U	7 U	2.5 U	7 U
Vinyl chloride	1.6	0.41 D	0.26 UD	2.6 UD	0.51 U	0.26 U	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.9	0.09 U	0.26 U

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Eastern Small Retail Space																		
		IA-5 011609 1/16/2009	IA-5- 020309 2/3/2009	IA-5- 021109 2/11/2009	IA-5- 021809 2/18/2009	IA-5- 022809 2/26/2009	IA-5- 030609 3/6/2009	IA-5- 041409 4/14/2009	IA-5- 051509 5/15/2009	IA-5- 061109 6/11/2009	IA-5- 091709 9/17/2009	IA-5- 122909 12/29/2009	IA-5- 032610 3/26/2010	IA-5- 070110 7/1/2010	IA-5- 091610 9/16/2010	IA-5- 120810 12/8/2010	IA-5- 021711 2/17/2011	IA-5- 060211 6/2/2011	IA-5- 091511 9/15/2011	
1,1,1-Trichloroethane	500	48	0.92	0.27 U	0.27 U	0.27 U	0.27 U	0.98	0.27 U	0.27 U	0.27 U	0.27 U	0.38	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane	1.1																			0.62 U
1,1,2,2-Tetrachloroethane	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	430	1.8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	20	0.58	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	
1,2,4-Trimethylbenzene	52	0.25 U	0.32	0.33	0.36	0.25 U	0.25 U	0.2	0.25 U	0.35	0.25 U	0.25 U	0.25 U	0.25 U	0.73	0.25 U	0.25 U	0.25 U	0.25 U	
1,2-Dibromoethane (EDB)	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,2-Dichloroethane	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
1,2-Dichloropropane	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	NA	0.11 U	0.11 U	0.11 U	0.25	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,4-Dichlorobenzene	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,4-Dioxane	NA															0.18 U			0.18 U	
2-Butanone	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	5.9 U	
2-Hexanone	NA	0.2 U	0.48	0.38	0.27	0.2 U	0.2 U	0.47	0.45	1.1	0.48	0.2 U	0.23	0.44	0.2 U	0.2 U	0.2 U	4.1 U	0.20 U	
4-Ethyltoluene	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U	0.68	0.23	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.31	0.20 U	
Acetone	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	15	
Benzene	3.3	0.79	0.6	0.99	1.6	0.41	0.55	0.62	0.49	0.53	0.35	0.45	0.65	0.16 U	1.1	0.26	1.1	0.33	0.29	
Benzyl chloride	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	
Bromoform	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromomethane	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	
Carbon tetrachloride	0.54	0.33	0.44	0.5	0.55 [a]	0.47	0.61 [a]	0.44	0.64 [a]	0.46	0.39	0.41	0.48	0.53	0.44	0.54	0.6 [a]	0.59 [a]	0.48	
Chlorobenzene	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.55	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	80	1.1	1	1.5	1.4	1.1	1.1	1.1	1	1.4	1	2	1.2	1	1	0.76	0.96	1.1	1.3	
cis-1,2-Dichloroethene	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
cis-1,3-Dichloropropene	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	
Cyclohexane	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.4	0.17 U	0.17 U	0.17 U	0.45	0.17 U	0.17 U	0.46	0.17 U	0.17 U	
Dibromochloromethane	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	500	2	2.2	2.5	2.7	2.6	2.6	1.9	2.5	2.2	2.1	1.9	1.8	2.4	1.9	2.3	3.1	1.7	2	
Ethanol	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	7.9	
Ethyl acetate	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.3	0.23	0.22 U	0.22 U	0.44	0.91	0.22 U	0.3	0.36	0.22 U	
Hexachlorobutadiene	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1	0.52	0.57	0.43	0.48	1	0.3	1.3	1.7	7.0 U	
Isopropyl alcohol	NA	3.8	3.5	580	2.9	3	1.3	1.7	2	19	3.5	3.8	3.8	1.9	8.2	0.12 U	1.7	1.2 U	6.4	
m,p-Xylene	500	0.6	0.74	0.91	1.2	0.43 U	0.43 U	0.68	0.51	0.88	0.59	0.43 U	0.46	1.2	2.4	0.43 U	0.85	0.57	0.53	

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Eastern Small Retail Space																	
		IA-5 011609 1/16/2009	IA-5- 020309 2/3/2009	IA-5- 021109 2/11/2009	IA-5- 021809 2/18/2009	IA-5- 022609 2/26/2009	IA-5- 030609 3/6/2009	IA-5- 041409 4/14/2009	IA-5- 051509 5/15/2009	IA-5- 061109 6/11/2009	IA-5- 091709 9/17/2009	IA-5- 122909 12/29/2009	IA-5- 032610 3/26/2010	IA-5- 070110 7/1/2010	IA-5- 091610 9/16/2010	IA-5- 120810 12/8/2010	IA-5- 021711 2/17/2011	IA-5- 060211 6/2/2011	IA-5 091511 9/15/2011
Methyl methacrylate	NA															0.2 U	0.2 U	0.2 U	0.20 U
Methylene chloride	17	2	3.6	5.2	1.1	1.2	0.74	2.5	2.9	2	0.7 U	4.3	2.2	1.3	0.75	0.65	2.8	4.2	7.7
Methyl-t-butyl ether	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	NA	0.2 U	0.2 U	0.36	0.35	0.2 U	0.2 U	0.23	0.38	0.48	0.2 U	0.2 U	0.2 U	0.2 U	2.1	0.2 U	0.33	0.2 U	0.20 U
o-Xylene	500	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.23	0.32	0.22 U	0.22 U	0.22 U	0.31	0.87	0.22 U	0.3	0.26	0.22 U
Propylene (Propene)	NA	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U
Styrene	290	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	1.5	0.3	0.21 U	0.35	0.32	0.58	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	5	0.39	0.34 U	0.43	0.43	0.34 U	0.34 U	0.24 U	0.47	0.34 U	0.41	0.34 U	0.34 U	0.34 U	0.34 U	0.39	2.4	0.34 U	0.58
Tetrahydrofuran	NA	3.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	500	1.3	1.1	3	3.3	0.65	0.51	1.5	2.8	2.8	1.5	0.54	1.5	0.7	6.2	0.19 U	1.8	0.9	0.97
trans-1,2-Dichloroethene	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U
trans-1,3-Dichloropropene	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U
Trichloroethene	1	5.5	0.39	0.27 U	0.27 U	0.27 U	0.27 U	0.22	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	500	3	1.3	1.7	1.8	1.5	1.7	1.2	1.3	2	1.2	1.8	1.4	1.5	6.3	1.3	1.7	1.4	1.7
Trichlorotrifluoroethane	NA	0.62	0.54	0.48	0.45	0.64	0.48	0.53	0.61	0.54	0.5	0.54	0.55	0.55	0.43	0.52	0.66	0.69	0.63
Vinyl acetate	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.43	0.18 U	3.5 U	0.18 U
Vinyl chloride	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Eastern Small Retail Space								Indoor Air - Center Small Retail Space													
	IA-5-120811 12/8/2011	IA-5-030812 3/8/2012	IA-5-061412 6/14/2012	IA-5-091312 9/13/2012	IA-5-010313 1/3/2013	IA-5-031513 3/15/2013	IA-5-060713 6/7/2013	IA-5-090613 9/6/2013	IA-6-011609 1/16/2009	IA-6-020309 2/3/2009	IA-6-021109 2/11/2009	IA-6-021809 2/18/2009	IA-6-022609 2/26/2009	IA-6-030609 3/6/2009	IA-6-041409 4/14/2009	IA-6-051509 5/15/2009	IA-6-061109 6/11/2009	IA-6-091709 9/17/2009	IA-6-122909 12/29/2009	IA-6-032610 3/26/2010	IA-6-070110 7/1/2010	IA-6-091610 9/16/2010
1,1,1-Trichloroethane	0.15	0.082 U	0.065	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	110	3.9	0.27 U	0.29	0.27 U	0.27 U	1.6	0.27 U	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.27 U
1,1,1,2-Tetrachloroethane		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U														
1,1,2,2-Tetrachloroethane	0.16	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	3.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	22	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	1.3	0.15 U	0.16	0.29	0.17 U	0.072	0.21	0.27	0.75	0.32	0.29	1.5	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.34	0.25 U	0.25 U	0.25 U	0.33
1,2-Dibromoethane (EDB)	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	23	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.066	0.061 U	0.044	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.14 U	0.069 U	0.067	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane									0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.39	0.15 U	0.077	0.11	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.38	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.076	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.37	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.41	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane																						
2-Butanone	0.98	2	0.94	2.3	1.3	1.3	3.2	2.4	120	10	3.2	2.9	2.4	2.3	1	2.5	4.1	2.4	1.8	1.4	1.1	0.89
2-Hexanone	0.13	0.32	0.081	0.17	0.16	0.16	0.48	0.44	0.2 U	0.42	0.37	0.34	0.2 U	0.37	0.14 U	0.62	0.72	0.7	0.2 U	0.26	0.2 U	0.2 U
4-Ethyltoluene	0.25	0.15 U	0.053	0.097	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.47	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.13	0.18	0.34	0.22	0.14 U	0.14 U	0.19	0.14 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.14 U	0.34	0.7	0.29	0.2 U	0.2 U	0.2 U	0.4
Acetone	6.6	11	13	13	9	9.7	24	19	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14	13
Benzene	0.38	0.34	0.2	0.53	0.53	0.8	0.27	0.68	1	0.6	0.98	4.1 [a]	0.41	0.7	0.59	0.47	0.43	0.31	0.4	0.55	0.19	0.6
Benzyl chloride	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.93 U	0.93 U	0.93 U	0.11	1.1 U	1.1 U	1.1 U	0.13	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.49	0.46	0.42	0.38	0.58 [a]	0.37	0.59	0.47	0.39	0.42	0.52	0.59 [a]	0.47	0.6 [a]	0.42	0.77 [a]	0.45	0.42	0.4	0.43	0.55 [a]	0.44
Chlorobenzene	0.48	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.079 U	0.079 U	0.079 U	0.059	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.49	0.073 U	0.14	0.17	0.17 U	0.069	0.17 U	0.17	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.36
Chloromethane	1	1.1	1.4	1.2	1	1.2	1.5	1.2	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	1.9	0.97	1.8	1.4	1	1.1
cis-1,2-Dichloroethene	0.18	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.1 U	0.1 U	0.12	0.21	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	2.6	2	2.9	2.8	2.8	1.6	3.4	1.9	2	2.1	2.6	2.8	2.6	2.6	2	2.7	2.5	2.2	1.9	1.6	2.4	1.6
Ethanol	5.4	14	43	11	3.9	1.9	12	15	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18	36
Ethyl acetate	0.11 U	0.48	0.21	0.66	0.59	0.13 U	1.5	0.29	0.37 U	0.37 U	0.18 U	0.22	0.37 U	0.18 U	0.26 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	1.2	0.13 U	0.16	0.31	0.15	0.091	0.15 U	0.26	0.29	0.25	0.33	1.6	0.22 U	0.22 U	0.21	0.22 U	0.24	0.23	0.22 U	0.22 U	0.22 U	0.43
Hexachlorobutadiene	0.17	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U
Hexane	0.36	0.48	0.57	1.2	0.95	1.1	1.4	0.75	1.2	0.78	0.7	2.6	0.33	0.4	0.63	0.38	0.68	0.45	0.18 U	0.22	1.3	0.69
Isopropyl alcohol	2.9 U	2.9 U	2.9 U	3.3	0.75	3.4 U	3.4 U	3.4 U	4.7	6.6	3.2	4.9	1.7	1.6	0.18 U	4.5	22	7	1.4	4.9	1	3.2
m,p-Xylene	3	0.12	0.36	0.97	0.6	0.24	0.49	0.81	0.82	0.72	0.84	4.9	0.43 U	0.43 U	0.51	0.43 U	0.67	0.62	0.43 U	0.51	0.58	1.1

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Parameter (ug/m ³)	Indoor Air - Eastern Small Retail Space								Indoor Air - Center Small Retail Space														
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Methyl methacrylate	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U															
Methylene chloride	1.6	1.6	1.1	2.3	5.2	2	3	1.1	2.5	5.2	0.59	1.6	0.83	0.69	2	2	2.6	0.7 U	2.9	0.7 U	4.5	0.64	
Methyl-t-butyl ether	0.039	0.11 U	0.11 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.081	0.089	0.18	0.32	0.14 U	0.14 U	0.18	0.46	0.27	0.2 U	0.32	1.3	0.2 U	0.2 U	0.21	0.2 U	0.26	0.2 U	0.2 U	0.2 U	1.4	0.47	
o-Xylene	1	0.13 U	0.14	0.35	0.19	0.1	0.17	0.33	0.36	0.26	0.34	1.8	0.22 U	0.22 U	0.19	0.22 U	0.25	0.23	0.22 U	0.22 U	0.22 U	0.42	
Propylene (Propene)	2.1 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	
Styrene	1	0.13 U	0.76	0.24	0.15 U	0.15 U	0.15 U	0.2	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	0.25	0.21 U	0.23	0.21 U	0.21 U	0.24	0.29	
Tetrachloroethene	5.7	0.15	0.15	1.6	0.24 U	0.12	0.24 U	0.24 U	1.2	0.34 U	0.45	1.2	0.34 U	0.34 U	0.72	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
Tetrahydrofuran	0.1	0.088 U	0.1	0.1 U	0.10 U	0.1 U	0.14	0.1 U	77	2.8	0.32	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	
Toluene	1.9	0.28	0.78	2	0.56	0.61	0.95	2.6	1.8	1.3	2.5	11	0.65	0.71	1.3	0.81	2	1.1	0.49	1.6	1.7	2.6	
trans-1,2-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
trans-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Trichloroethene	0.63	0.081 U	0.045	0.1	0.19 U	0.19 U	0.19 U	0.19 U	13	1.7	0.27 U	0.34	0.27 U	0.27 U	0.6	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3	
Trichlorofluoromethane	1.1	0.98	1.7	1.6	1.8	1.3	2.1	1.6	4.8	1.3	1.7	2.5	1.5	1.7	1.4	1.2	2.2	1.2	1.7	1.3	1.5	3.1	
Trichlorotrifluoroethane	0.69	0.46	0.53	0.6	0.61	0.6	1.4	0.63	0.64	0.51	0.48	0.45	0.64	0.48	0.53	0.74	0.63	0.48	0.51	0.55	0.55	0.42	
Vinyl acetate	0.11 U	0.21 U	0.55	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	
Vinyl chloride	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	

Table 1
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Center Small Retail Space												Indoor Air - Western Small Retail Space					
	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-061412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 1/3/2013	IA-6-031513 3/15/2013	IA-6-060713 6/7/2013	IA-6-090613 9/6/2013	IA-7-011609 1/16/2009	IA-7-020309 2/3/2009	IA-7-021109 2/11/2009	IA-7-021809 2/18/2009	IA-7-022609 2/26/2009	IA-7-030609 3/6/2009
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.085	0.082 U	0.072	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	44	2.4	0.4	1.3	0.27 U	0.27 U
1,1,1,2-Tetrachloroethane				0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U						
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	2.8	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	0.35	0.25 U	0.25	0.16	0.15 U	0.21	0.17 U	0.17 U	0.076	0.21	0.27	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	1.7	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.20 U	0.056	0.061 U	0.056	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.061	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane													0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.059	0.15 U	0.091	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.13	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane				0.18 U														
2-Butanone	0.87	1.9 B	2.9 U	5.9 U	1.3	0.63	1.4	2.8	1.4	1.4	0.91	2.8	70	6.5	3.9	5.2	2.2	1.3
2-Hexanone	0.2 U	0.22	4.1 U	0.6	0.15	0.12 U	0.2	0.27	0.14 U	0.2	0.14 U	0.48	0.2 U	0.29	0.2 U	0.91	0.2 U	0.2 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.08	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U
4-Methyl-2-pentanone	0.2 U	0.2 U	0.28	0.31	0.13	0.12 U	0.92	0.25	0.14 U	0.14 U	0.14 U	0.3	0.2 U	0.2 U	0.2 U	0.42	0.2 U	0.2 U
Acetone	11 B	14 B	19 B	26	10	7.4	15	18	11	10	20	29	29	12	13	32	7.8	6.6
Benzene	0.44	1.3	0.29	0.31	0.42	0.39	0.2	0.49	0.48	0.8	0.23	0.7	0.95	0.75	1.1	3.2	0.67	0.73
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	0.2	1.1 U	1.1 U	1.1 U	0.13	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.46	0.57 [a]	0.64 [a]	0.52	0.46	0.48	0.44	0.37	0.55 [a]	0.42	0.58 [a]	0.47	0.32	0.44	0.52	0.56 [a]	0.48	0.6 [a]
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.45	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.1	0.073 U	0.24	0.17	0.17 U	0.075	0.17 U	0.19	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	0.95	0.92	1.1	1.4	1.3	1.2	1.4	1.2	1.1	1.4	1.5	1.1	1.7	0.98	1.4	1.5	1	1.2
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.098	0.059 U	0.052	0.042	0.14 U	0.14 U	0.14 U	0.14 U	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.17 U	0.17 U	0.29	0.17 U	0.1 U	0.1 U	0.1 U	0.2	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	1.9	3.1	1.8	1.9	2.9	2	2.9	2.8	2.7	1.7	3.4	1.9	2.1	2.2	2.6	2.7	2.6	2.6
Ethanol	5.9	10	7.7	14	24	41	67	23	8.4	2.9	20	21	7.3	16	11	26	7.9	8.4
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.48	0.69	0.31	1	0.42	0.34	0.64	0.42	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U
Ethylbenzene	0.22 U	0.45	0.22 U	0.22 U	0.15	0.22	0.71	0.23	0.16	0.11	0.18	0.29	0.23	0.29	0.36	0.95	0.24	0.22 U
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	0.39	1.5	0.41	7.0 U	0.41	0.48	0.73	1	0.64	0.76	0.83	0.85	0.9	0.87	0.91	2	1.1	0.6
Isopropyl alcohol	1.1	2.8	1.2 U	11	2.9 U	2.9 U	2.9 U	6.7	3.4 U	3.4 U	3.4 U	3.4 U	3.7	6.2	3.6	8.3	0.25 U	2.7
m,p-Xylene	0.43 U	1.2	0.48	0.59	0.45	0.54	0.73	0.38	0.58	0.31	0.54	0.81	0.61	0.82	0.94	2.8	0.73	0.43 U

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Center Small Retail Space											Indoor Air - Western Small Retail Space						
	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-061412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 1/3/2013	IA-6-031513 3/15/2013	IA-6-060713 6/7/2013	IA-6-090613 9/6/2013	IA-7-011609 1/16/2009	IA-7-020309 2/3/2009	IA-7-021109 2/11/2009	IA-7-021809 2/18/2009	IA-7-022609 2/26/2009	IA-7-030609 3/6/2009
Methyl methacrylate	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U						
Methylene chloride	0.94	3	1	1.7 U	1.5	1.8	1.5	2.2	1.6	1.1	1.3	1.1	1.9	5.7	0.92	1.5	6.3	1.4
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.14	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.35	0.2 U	0.2	0.11	0.15	0.25	0.31	0.095	0.1	0.14	0.47	0.2	0.2 U	0.37	1.2	0.2 U	0.2 U
o-Xylene	0.22 U	0.4	0.22 U	0.22	0.17	0.13	0.29	0.12	0.18	0.13	0.21	0.32	0.24	0.31	0.39	0.97	0.24	0.22 U
Propylene (Propene)	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U
Styrene	0.21 U	0.21 U	0.27	0.22	0.13	0.13 U	1.2	0.054	0.15 U	0.15 U	0.15 U	0.22	0.21 U	0.21 U	0.21 U	0.26	0.21 U	0.21 U
Tetrachloroethene	0.34 U	1.6	0.34 U	0.58	0.68	0.15	0.57	2.6	0.24 U	0.12	0.24 U	0.24 U	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15	0.12	0.088 U	0.088 U	0.1 U	0.10 U	0.1 U	0.1 U	0.1 U	45	2.1	0.74	0.43	0.15 U	0.15 U
Toluene	0.4	2.9	0.93	1.2	1.2	1.4	1.1	1.5	0.56	0.65	1.1	2.6	1.5	1.6	2.7	7.5	1.5	0.76
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.19	0.081 U	0.24	0.2	0.19 U	0.072	0.19 U	0.19 U	4.6	1.1	0.28	0.58	0.27 U	0.27 U
Trichlorofluoromethane	1.1	1.6	1.1	1.7	1.4	1	1.6	1.7	2	1.3	2.1	1.7	4.7	1.4	1.7	3.1	1.6	1.7
Trichlorotrifluoroethane	0.52	0.69	0.67	0.56	0.68	0.44	0.57	0.62	0.61	0.65	1	0.66	0.62	0.57	0.47	0.44	0.66	0.45
Vinyl acetate	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.33	0.09 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

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Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Western Small Retail Space																				
	IA-7-041409 4/14/2009	IA-7-051509 5/15/2009	IA-7-061109 6/11/2009	IA-7-091709 9/17/2009	IA-7-122909 12/29/2009	IA-7-032610 3/26/2010	IA-7-070110 7/1/2010	IA-7-091610 9/16/2010	IA-7-120710 12/7/2010	IA-7-021711 2/17/2011	IA-7-060211 6/2/2011	IA-7-091511 9/15/2011	IA-7-120811 12/8/11	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013
1,1,1-Trichloroethane	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069	0.082 U	0.088	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,1,2-Tetrachloroethane													0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U
1,1,2,2-Tetrachloroethane	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U
1,1,2-Trichloroethane	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U
1,1-Dichloroethane	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U
1,2,4-Trichlorobenzene	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.17	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U
1,2,4-Trimethylbenzene	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32	0.36	0.21	0.46	0.17 U	0.1	0.58	0.4	0.7
1,2-Dibromoethane (EDB)	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U
1,2-Dichlorobenzene	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U
1,2-Dichloroethane	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.07	0.061 U	0.051	0.14 U	0.14 U	0.14 U	0.14 U	0.11
1,2-Dichloropropane	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.3	0.23 U	0.23 U	0.23 U	0.63	0.23 U	0.14 U	0.069 U	0.14 U	0.094	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U													0
1,3,5-Trimethylbenzene	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.1	0.15	0.083	0.26	0.17 U	0.17 U	0.17 U	0.17 U	0.23
1,3-Butadiene	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U
1,3-Dichlorobenzene	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U
1,4-Dichlorobenzene	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.065	0.063	0.21 U	0.21 U	0.21 U	0.21 U	0.086
1,4-Dioxane												0.18 U									0
2-Butanone	1.3	2.3	7.3	2.2	0.49	2.1	4.3	1.8	0.42	1.7 B	4.7	5.9 U	2.1	0.97	1.1	2.8	1.9	1.9	1.7	1.6	3.8
2-Hexanone	0.14 U	0.53	1.5	0.53	0.2 U	0.2 U	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73	0.12 U	0.081	0.23	0.41	0.2	0.35	0.14 U	0.15	1.1
4-Ethyltoluene	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074	0.097	0.065	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.2
4-Methyl-2-pentanone	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15	0.13	1.4	0.29	0.18	0.14 U	0.21	0.2	0.44
Acetone	6.5	10	31	22	31	12	41	27	12 B	15 B	48 B	38	17	13	18	24	14	15	49	46	46
Benzene	0.42	0.35	0.52	0.43	0.52	0.53	0.27	0.56	0.45	1.1	0.41	0.34	0.44	0.36	0.2	0.49	0.58	0.87	0.32	0.43	1.8
Benzyl chloride	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U
Bromoform	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U
Bromomethane	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U
Carbon disulfide	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 U	0.93 U	0.93 U	0.93 U	0.09	1.1 U	1.1 U	0.16	0.6	0.14
Carbon tetrachloride	0.43	0.65 [a]	0.43	0.42	0.44	0.43	0.5	0.47	0.45	0.56 [a]	0.69 [a]	0.5	0.45	0.46	0.43	0.38	0.51	0.39	0.55 [a]	0.46 [a]	0.45
Chlorobenzene	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U
Chloroform	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.38	0.24 U	0.24 U	0.24 U	0.24 U	0.34	0.12	0.073 U	0.13	0.2	0.17 U	0.082	0.21	0.47
Chloromethane	1.1	0.93	1.8	1.2	2.1	1.2	1.3	1.4	0.99	1	1.6	1.6	1.3	1.6	1.2	1.3	1.1	1.4	1.5	1.3	1.2
cis-1,2-Dichloroethene	0.14	0.2 U	0.2 U	0.2 U	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.064	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U
cis-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
Cyclohexane	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.29 U
Dichlorodifluoromethane	2	2.4	2.7	2.3	2.1	1.8	2.7	1.7	2	3.1	2.5	1.8	2.8	2.1	2.7	2.9	2.6	1.7	3.1	2.1	1.5
Ethanol	7.1	11	14	11	10	13	39	240	13	14	28	76	60	70	110	60	52	11	45	21	40
Ethyl acetate	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21	1.8	0.94	0.39	0.57	0.77	0.13 U	5.5	1.3	1.9
Ethylbenzene	0.16 U	0.22 U	0.25	0.32	0.68	0.32	0.45	0.45	0.22 U	0.22 U	0.68	0.45	0.24	0.12	0.24	0.45	0.19	0.14	0.36	0.48	0.62
Hexachlorobutadiene	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U
Hexane	0.69	0.33	1.5	0.88	0.25	0.33	0.7	0.64	0.5	1.3	0.58	7.0 U	3.9	0.8	0.67	0.97	0.86	0.87	2.9	1.3	0.97
Isopropyl alcohol	0.18 U	7	14	4	1.9	18	5.8	28	2.8	11	1.2 U	77	2.9 U	2.9 U	48	22	3.3	3.4 U	3.4 U	3.4 U	6
m,p-Xylene	0.31 U	0.43 U	0.72	0.86	2.8	0.82	1.2	1.2	0.43 U	0.43 U	1.5	1.1	0.72	0.3	0.54	1.4	0.71	0.4	1.1	1.2	1.8

**Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Western Small Retail Space																				
	IA-7-041409 4/14/2009	IA-7-051509 5/15/2009	IA-7-061109 6/11/2009	IA-7-091709 9/17/2009	IA-7-122909 12/29/2009	IA-7-032610 3/26/2010	IA-7-070110 7/1/2010	IA-7-091610 9/16/2010	IA-7-120710 12/7/2010	IA-7-021711 2/17/2011	IA-7-060211 6/2/2011	IA-7-091511 9/15/2011	IA-7-120811 12/8/11	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013
Methyl methacrylate									0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	4.2	2.3	5.7	0.7 U	2.9	0.7 U	1.3	0.6	1.3	2.5	1.1	1.7 U	13	2.8	1.4	2.3	2.6	1.4	6.1	1.3	1.1
Methyl-t-butyl ether	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.11	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U
n-Heptane	0.17	0.2 U	0.34	0.37	0.2 U	0.29	0.5	0.68	0.33	0.47	2	1.1	0.46	0.47	0.65	0.99	0.14 U	0.16	0.42	1.1	1.6
o-Xylene	0.16 U	0.22 U	0.25	0.31	0.6	0.28	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.3	0.17	0.2	0.56	0.24	0.15	0.4	0.44	0.85
Propylene (Propene)	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U
Styrene	0.15 U	0.21 U	0.29	0.39	0.21 U	0.26	0.7	0.39	0.21 U	0.21 U	0.97	0.63	0.18	0.097	0.26	0.89	0.15 U	0.081	0.29	2.6	0.37
Tetrachloroethene	0.48	0.34 U	0.34 U	0.34 U	1	0.34 U	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66	0.14	0.15	1.7	0.24 U	0.15	0.24 U	5.5	0.22
Tetrahydrofuran	0.27	0.15 U	0.15 U	0.51	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18	0.088 U	0.088 U	0.088	0.1 U	0.10 U	0.1 U	0.1 U	0.65	0.15
Toluene	0.48	0.61	2.3	4	0.57	7.2	8.4	3.5	0.48	1.6	6.6	3.7	1.2	0.48	1.4	2.4	0.99	1	3.8	4.7	7.8
trans-1,2-Dichloroethene	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U
trans-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
Trichloroethene	0.3	0.27 U	0.27 U	0.27 U	0.4	0.27 U	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16	0.081 U	0.077	0.15	0.19 U	0.068	0.19 U	0.53	0.14
Trichlorofluoromethane	1.3	1.1	1.9	1.3	1.7	1.3	1.3	2.9	1.2	1.6	1.3	1.6	1.3	1.1	1.7	1.8	1.8	1.5	2.5	1.8	1.9
Trichlorotrifluoroethane	0.54	0.69	0.57	0.51	0.54	0.64	0.54	0.43	0.55	0.67	0.76	0.54	0.67	0.44	0.53	0.58	0.6	0.87	1	0.63	0.52
Vinyl acetate	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U
Vinyl chloride	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	0.087 U

Notes:

[a] Benzene and carbon tetrachloride are above the target air concentration, but are not compliance violations as indoor air concentrations are consistent with outdoor air concentrations that were sampled on the same day.

Prepared by / Date: KJC 10/21/13
Checked by / Date: MAM 10/21/13

NA - not available

U - Not detected, value is the detection limit

B - Compounds detected in method blank as well as field sample

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

5 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

**Table 2.
Vacuum Monitoring Results - Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island**

Date	Pressure Differential (inches of water)		
	VMW-5	VMW-6	VMW-7
2/3/2009	-0.25	-0.17	0.00
2/18/2009	-0.212	-0.155	-0.011
2/26/2009	-0.230	-0.120	-0.025
3/6/2009	-0.200	-0.086	-0.012
4/14/2009	-0.108	-0.054	-0.014
5/15/2009	-0.081	-0.073	-0.016
6/11/2009	-0.090	-0.076	-0.098
9/17/2009	-0.110	-0.102	+0.074
12/29/2009**	-0.011	-0.010	-0.061
3/26/2010	-0.245	-0.142	-0.018
7/1/2010	-0.542	-0.114	-0.176
9/16/2010	-0.247	-0.874	-0.013
12/7/2010	-0.044	-0.028	+0.022
2/17/2011	-0.212	-0.599	-0.337
6/2/2011	-0.277	-0.236	-0.138**
9/15/2011	-0.234	-0.212	-0.010
12/8/2011	-0.609	-0.115	-0.009
3/8/2012	-0.003	-0.246	-0.114
6/14/2012	-0.237	-0.103	-0.132
9/13/2012	-0.243	-0.119	-0.210
1/3/2013	-0.150	-0.060	-0.052
3/15/2013	-0.228	-0.354	-0.002
6/7/2013	-0.226	-0.123	-0.011
9/6/2013	-0.232	-0.829	-0.007
10/3/2013	NM	NM	-0.006

** ASD system offline.

NM = Not Measured

Prepared by/Date: MAM 10/17/13

Checked by/Date: DLC 10/21/13

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane																				
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.11 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.23 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.53	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dioxane																				
2-Butanone	0.58	1.2	2.4	3.2	1.6	0.67	1.7	0.11 U	1.6	1.6	1.1	1.7	0.8	1.2	1.2	2	0.81	1.6	1.6	
2-Hexanone	0.2 U	0.22	0.57	0.35	0.2 U	0.2 U	0.2 U	0.14 U	0.26	0.39	0.2 U	0.34	0.2 U	0.33	0.23	0.2 U	0.2 U	0.32	0.2 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34	
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5.0	
Benzene	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.3	0.4	0.49	0.38	0.35	0.25	0.2	0.42	0.79	0.68	0.63	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.28	0.16 U	0.16 U	
Carbon tetrachloride	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.4	0.4	0.43	0.46	0.39	0.42	0.39	0.31 U	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1.1	0.9	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	1.2	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2	2.2	2.6	2.7	2.6	2.6	2.8	2	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5	
Ethanol	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	
Ethyl acetate	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91	
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	2.7	1.5	
m,p-Xylene	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U	0.50	0.47	
Methyl methacrylate																				
Methylene chloride	5.5	3.1	0.65	1.5	0.78	7.4	15	2.1	2.8	1.7	1.9	0.7 U	4.2	0.7 U	23	4.6	1.3	1.9	1.7	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.27	0.92	1.6	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.4	0.23	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Propylene (Propene)	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.09 U	0.09 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.34 U	0.34 U	0.73	0.77	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.52	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2	0.61	0.5	0.78	0.94	0.64	0.97
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.30
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1	1.4	1.2	1.5	2.2	1.2	1.2	1.6
Trichlorotrifluoroethane	0.68	0.53	0.5	0.47	0.64	0.48	0.51	0.27 U	0.64	0.67	0.56	0.47	0.49	0.45	0.46	0.54	0.49	0.55	0.54
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	
1,1,1,2-Tetrachloroethane										0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	
1,2,4-Trichlorobenzene	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.26 U	0.25 U	
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.066	0.061 U	0.046	0.14 U	0.14 U	0.057	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U												0	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.047	
1,3-Butadiene	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	
1,4-Dioxane										0.18 U									0	
2-Butanone	0.88	1.5	1.4	2.4	2.3	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2	0.89	1.9	3.9	3.7	0.94	
2-Hexanone	0.2 U	0.29	0.29	0.49	0.49	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.17 U	0.063	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2.8	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.23	0.1	0.14 U	0.083	0.24	0.14 U	0.14 U	
Acetone	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12	
Benzene	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4	0.29	0.2	0.68	0.42	1	0.31	0.7	0.95	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	
Carbon disulfide	0.44	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U	1.1 U	
Carbon tetrachloride	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.1	
Chloromethane	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U	1.1	1.5	1.1	1	1.6	1.4	1.1	0.96	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	
Dichlorodifluoromethane	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	2	2.4	2.8	2.5	1.7	3	2	1.8	
Ethanol	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	6.7	
Ethyl acetate	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U	
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	
Hexachlorobutadiene	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	
Hexane	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81	
Isopropyl alcohol	0.8	0.73	0.69	1.6	0.79	0.25 U	0.29	2.4	1.2 U	4.9 U	0.6	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U	
m,p-Xylene	0.43 U	0.49	0.43 U	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.3 U	0.34	0.58	0.21	0.53	
Methyl methacrylate							0.2 U	0.48	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	0.7 U	0.7 U	0.7 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	1.6	3	2.1	4.4	2.9	2.3	9.1	1	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U
n-Heptane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.2	0.15 U	0.24
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.1	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.1 U	0.2 U	0.87	0.24 U	0.9	0.24 U	0.24 U	0.3
Tetrahydrofuran	0.19	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.1 U	0.1 U	0.1 U	1.4	0.1 U
Toluene	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11
Trichlorofluoromethane	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.3	1.8	11	11	3.3
Trichlorotrifluoroethane	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1	0.6	0.55
Vinyl acetate	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.087 U

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Large Retail Space																
	EW- Combined- 020309 2/3/2009	EW- COMBINE D-021109 2/11/2009	EW- COMBINE D-021809 2/18/2009	EW- COMBINE D-022609 2/26/2009	EW- COMBINE D-041409 4/14/2009	EW- COMBINE D-042409 4/24/2009	EW- COMBINE D-091709 9/17/2009	EW- COMBINE D-092409 9/24/2009	EW- COMBINE D-100109 10/1/2009	EW- COMBINE D-100809 10/8/2009	EW- COMBINE D-012810 1/28/2010	EW- COMBINE D-020510 2/5/2010	EW- COMBINE D-021210 2/12/2010	EW- COMBINE D-021910 2/19/2010	EW- COMBINE D-043010 4/30/2010	EW- COMBINE D-052810 5/28/2010	EW- COMBINE D-070110 7/1/2010
1,1,1-Trichloroethane	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400	1700	2000
1,1,1,2-Tetrachloroethane																	
1,1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	14 U	14 U	6.8 U	0.34 U	3.4 U	6.8 U	14 U	14 U	0.68 U	6.8 U	0.34 U	0.68 U	0.68 U	6.8 U	0.68 U
1,1,2-Trichloroethane	5.4 U	5.4 U	11 U	11 U	5.4 U	0.65	2.7 U	5.4 U	11 U	11 U	0.54 U	5.4 U	0.27 U	0.54 U	0.54 U	5.4 U	0.54 U
1,1-Dichloroethane	19000	7800	5300	4800	390	2200	1600	1900	1700	280	370	31	310	200	270	290	
1,1-Dichloroethene	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	30	40	52
1,2,4-Trichlorobenzene	7.4 U	7.4 U	15 U	15 U	7.4 U	0.37 U	3.7 U	7.4 U	15 U	15 U	0.74 U	7.4 U	0.37 U	0.74 U	0.74 U	7.4 U	0.74 U
1,2,4-Trimethylbenzene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	0.5 U
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	16 U	16 U	7.6 U	0.38 U	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.38 U	0.76 U	0.76 U	7.6 U	0.76 U
1,2-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	0.6 U
1,2-Dichloroethane	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U	0.4 U
1,2-Dichloropropane	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	4.6 U	0.46 U
1,2-Dichlorotetrafluoroethane	7 U	7 U	14 U	14 U	7 U	0.35 U	3.5 U	7 U	14 U	14 U	0.7 U	7 U	0.35 U	0.7 U	0.7 U	7 U	0.7 U
1,3,5-Trimethylbenzene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	0.5 U
1,3-Butadiene	2.2 U	2.2 U	4.4 U	4.4 U	2.2 U	0.11 U	2.3 U	4.5 U	8.9 U	8.9 U	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U	2.2 U	0.22 U
1,3-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	0.6 U
1,4-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	0.6 U
1,4-Dioxane																	
2-Butanone	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9	12.0	22.0	22.0
2-Hexanone	4 U	4 U	8 U	8 U	4 U	0.5	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U	0.4 U
4-Ethyltoluene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	0.5 U
4-Methyl-2-pentanone	4 U	4 U	8 U	8 U	4 U	0.59	2 U	4 U	8 U	8 U	0.4 U	4 U	0.28	0.4 U	0.4 U	4 U	0.4 U
Acetone	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	0.96 U	16	24	16
Benzene	14	7.3	8.4	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U	0.61	3.2 U	0.63	0.43	0.74	5.5	0.84
Benzyl chloride	5.2 U	5.2 U	11 U	11 U	5.2 U	0.26 U	2.6 U	5.2 U	11 U	11 U	0.52 U	5.2 U	0.26 U	0.52 U	0.52 U	5.2 U	0.52 U
Bromodichloromethane	6.6 U	6.6 U	14 U	14 U	6.6 U	0.33 U	3.3 U	6.6 U	14 U	14 U	0.66 U	6.6 U	0.33 U	0.66 U	0.66 U	6.6 U	0.66 U
Bromoform	11 U	11 U	21 U	21 U	11 U	0.51 U	5.1 U	11 U	21 U	21 U	1.1 U	11 U	0.51 U	1.1 U	1.1 U	11 U	1.1 U
Bromomethane	3.8 U	3.8 U	7.6 U	7.6 U	3.8 U	0.19 U	1.9 U	3.8 U	7.6 U	7.6 U	0.38 U	3.8 U	0.19 U	0.38 U	0.38 U	3.8 U	0.38 U
Carbon disulfide	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U	4.3	3.2 U	0.17	3.8	0.77	3.2 U	1.1
Carbon tetrachloride	6.2 U	6.2 U	13 U	13 U	6.2 U	0.57	3.1 U	6.2 U	13 U	13 U	0.62 U	6.2 U	0.38	0.62 U	0.62 U	6.2 U	0.73
Chlorobenzene	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	7.2	0.46 U
Chloroethane	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8	7.2	9.4
Chloroform	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	6	7.9	8
Chloromethane	2 U	2 U	4 U	4 U	2 U	8.2	1 U	2 U	4 U	4 U	0.2 U	2 U	0.1 U	0.2 U	0.2 U	2 U	0.2 U
cis-1,2-Dichloroethene	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	180	260	260
cis-1,3-Dichloropropene	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Cyclohexane	3.4 U	3.4 U	6.8 U	6.8 U	3.4 U	0.17 U	1.7 U	3.4 U	6.8 U	6.8 U	0.34 U	3.4 U	0.17 U	0.34 U	0.34 U	3.4 U	0.34 U
Dibromochloromethane	8.6 U	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.43 U	0.86 U	0.86 U	8.6 U	0.86 U
Dichlorodifluoromethane	5 U	5 U	10 U	110	5 U	2.8	2.5 U	5 U	10 U	10 U	2.4	5 U	2.2	2.7	1.7	5 U	2.5
Ethanol	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10	19 U	15
Ethyl acetate	7.3 U	3.6 U	7.2 U	15 U	7.3 U	0.37 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U
Ethylbenzene	9.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Hexachlorobutadiene	22 U	22 U	43 U	43 U	22 U	1.1 U	5.3 U	11 U	22 U	22 U	1.1 U	11 U	0.53 U	1.1 U	1.1 U	11 U	1.1 U
Hexane	16	4.9	270	7.2 U	3.6 U	2.3	1.9	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.74	0.36 U	0.92	3.6 U	0.44
Isopropyl alcohol	610	2.4 U	15	9.9 U	5 U	0.25 U	22	5 U	9.9 U	9.9 U	2.3	5 U	1.0	0.5 U	2.6	2.4 U	0.24 U
m,p-Xylene	25	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.49	0.86 U	0.86 U	8.6 U	0.86 U
Methyl methacrylate																	
Methylene chloride	12	7 U	14 U	14 U	19	2.6	7 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U	1.4 U	7 U	2.1

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Large Retail Space																
	EW- Combined- 020309 2/3/2009	EW- COMBINE D-021109 2/11/2009	EW- COMBINE D-021809 2/18/2009	EW- COMBINE D-022609 2/26/2009	EW- COMBINE D-041409 4/14/2009	EW- COMBINE D-042409 4/24/2009	EW- COMBINE D-091709 9/17/2009	EW- COMBINE D-092409 9/24/2009	EW- COMBINE D-100109 10/1/2009	EW- COMBINE D-100809 10/8/2009	EW- COMBINE D-012810 1/28/2010	EW- COMBINE D-020510 2/5/2010	EW- COMBINE D-021210 2/12/2010	EW- COMBINE D-021910 2/19/2010	EW- COMBINE D-043010 4/30/2010	EW- COMBINE D-052810 5/28/2010	EW- COMBINE D-070110 7/1/2010
Methyl-t-butyl ether	3.6 U	3.6 U	7.2 U	7.2 U	3.6 U	0.18 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U
n-Heptane	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U	0.4 U
o-Xylene	8.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Propylene (Propene)	3.5 U	100	3.6 U	6.9 U	3.5 U	0.18 U	3.5 U	6.9 U	6.9 U	14 U	0.69 U	6.9 U	0.35 U	0.69 U	0.69 U	18 U	1.8 U
Styrene	4.2 U	4.2 U	8.4 U	8.4 U	4.2 U	0.21 U	2.1 U	4.2 U	8.4 U	8.4 U	0.42 U	4.2 U	0.21 U	0.42 U	0.42 U	4.2 U	0.42 U
Tetrachloroethene	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45	450	1300	640
Tetrahydrofuran	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43	34	54	65
Toluene	36	3.8 U	7.6 U	7.6 U	3.8 U	0.59	3.4	4.7	7.6 U	7.6 U	0.38 U	3.8 U	3.6	0.38 U	0.75	3.8 U	0.41
trans-1,2-Dichloroethene	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1	3	4.6	5.5
trans-1,3-Dichloropropene	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Trichloroethene	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460	1200	2000	1700
Trichlorofluoromethane	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230	210	300	440
Trichlorotrifluoroethane	7.6 U	7.6 U	16 U	16 U	7.6 U	0.74	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.53	0.76 U	0.76 U	7.6 U	0.76 U
Vinyl acetate	15 U	3.6 U	7.2 U	29 U	15 U	0.71 U	7.1 U	15 U	29 U	29 U	1.5 U	15 U	0.71 U	1.5 U	1.5 U	3.6 U	0.36 U
Vinyl chloride	110	20	10	5.2 U	2.6 U	3.4	1.3 U	2.6 U	5.2 U	5.2 U	0.26 U	2.6 U	0.13 U	0.26 U	0.26 U	2.6 U	0.26 U

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Large Retail Space																			
	EW-COMBINE D-091610 9/16/2010	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D 091511 9/15/2011	EW-Combined-120811 12/8/2011	EW-Combined-030812 3/8/2012	EW-Combined-061412 6/14/2012	EW-Combined-091312 9/13/2012	EW-Combinde d-010313 1/13/2013	EW-Combined-031513 3/15/2013	EW-Combined-060713 6/7/2013	EW-Combined-090613 9/6/2013	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009	EW-2-030609 3/6/2009	EW-2-033109 3/31/2009	EW-3-030609 3/6/2009	EW-3-033109 3/31/2009	EW-4-030609 3/6/2009	EW-4-033109 3/31/2009
1,1,1-Trichloroethane	4700	280 D	2500 D	2400	340	1100	1800	2800	1800	610	850	1900	59000	66000	26000	30000	54000	72000	11000	14000
1,1,1,2-Tetrachloroethane				2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U								
1,1,2,2-Tetrachloroethane	0.68 U	0.69 UD	0.69 UD	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 U
1,1,2-Trichloroethane	0.55	0.55 UD	0.55 UD	1.1 U	0.55 U	2.7 U	0.55 U	0.26	0.55 U	0.55 U	0.55 U	0.19 U	6.4	10	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 U
1,1-Dichloroethane	330	36 D	170 D	200	70	78	130	200	99	59	68	150	4100	4400	5700	7000	1600	2300	690	1400
1,1-Dichloroethene	81	7.3 D	58 D	44	21	34	42	15	28	24	38	56	570	1200	330	640	340	560	97	210
1,2,4-Trichlorobenzene	0.74 U	0.74 UD	0.74 UD	3.0 U	1.5 U	3800	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 U
1,2,4-Trimethylbenzene	0.5 U	0.49 UD	0.49 UD	0.98 U	1.2	4.9 U	0.57	0.24	0.49 U	14	0.49 U	0.21	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,2-Dibromoethane (EDB)	0.76 U	0.77 UD	0.77 UD	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U
1,2-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	7.3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,2-Dichloroethane	0.4 U	0.4 UD	0.4 UD	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
1,2-Dichloropropane	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U
1,2-Dichlorotetrafluoroethane	0.7 U												7 U	7 U	7 U	7 U	7 U	7 U	1.8 U	7 U
1,3,5-Trimethylbenzene	0.5 U	0.49 UD	0.49 UD	0.98 U	0.29	4.9 U	0.15	0.49 U	0.49 U	3.9	0.49 U	0.17 U	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,3-Butadiene	0.22 U	0.22 UD	0.22 UD	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	2.2 U
1,3-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	1.1	0.6 U	0.21 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,4-Dichlorobenzene	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,4-Dioxane				0.72 U																
2-Butanone	10.0	4.5 D	4.5 BD	24 U	1.3	120 U	110	16	2.9	22	5.3	7.6	3.5	8.9	12.0	11	36	10	36	6.4
2-Hexanone	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	0.31	0.41 U	0.41 U	1.4	0.41 U	0.26	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
4-Ethyltoluene	0.5 U	0.49 UD	0.49 UD	0.98 U	0.27	4.9 U	0.49 U	0.49 U	0.49 U	3.4	0.49 U	0.17 U	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
4-Methyl-2-pentanone	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	0.38	0.41 U	0.41 U	8.7	0.41 U	0.14 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
Acetone	6.6	11 BD	6.3 BD	19 U	6.6	22	19	14	10	75	12	11	35	16	9.6 U	9.6 U	53	24	26	12
Benzene	1.7	0.5 D	0.72 D	0.77	0.56	3.2 U	1	0.96	0.45	5	0.32 U	0.82	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U
Benzyl chloride	0.52 U	0.52 UD	0.52 UD	1.0 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	5.2 U
Bromodichloromethane	0.66 U	0.67 UD	0.67 UD	1.3 U	0.67 U	3.4 U	10	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	6.6 U
Bromoform	1.1 U	1 UD	1 UD	2.1 U	1 U	10 U	1 U	1 U	1.0 U	1 U	1 U	0.36 U	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U
Bromomethane	0.38 U	0.39 UD	0.39 UD	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	3.8 U
Carbon disulfide	1.3	0.31 UD	0.73 D	6.2 U	3.1 U	31 U	1.7	3.6	0.43	0.82	3.1 U	0.73	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U
Carbon tetrachloride	1.1	0.63 UD	0.63 D	1.3 U	0.48	3.1 U	0.5	0.74	0.63 U	0.63 U	0.63 U	0.68	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	6.2 U
Chlorobenzene	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U
Chloroethane	17	1 D	3.6 D	6.7	2.1	2.6 U	3	5.3	1.5	1.1	1.4	3.3	170	250	700	590	41	44	17	33
Chloroform	8.3	1.6 D	6.9 D	7.6	2.7	3.2	6.3	8.5	4.7	3.5	2.3	7	20	34	9.6	15	13	23	3.6	7.5
Chloromethane	0.2 U	0.21 UD	0.21 UD	0.41 U	0.21 U	2.1 U	20	0.21 U	0.21 U	0.21 U	0.41 U	0.14 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U
cis-1,2-Dichloroethene	360	28 D	120 D	160	38	47	75	150	66	30	24	93	2000	2200	6100	7600	610	1200	560	1300
cis-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U
Cyclohexane	0.55	0.34 UD	0.34 UD	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	21	0.34 U	0.12 U	3.4 U	5.7	8.4	8.8	3.4 U	3.4 U	0.85 U	3.4 U
Dibromochloromethane	0.86 U	0.85 UD	0.85 UD	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U
Dichlorodifluoromethane	1.6	3 D	4.1 D	2.9	2.9	4.9 U	2.9	2.9	2.4	2.5	2.1	11	5 U	170	5 U	5 U	5.4	7	2.6	5 U
Ethanol	1.9 U	8.2 D	17 D	15 U	9.2	75 U	7.2	12	19	320	34	30	33	40	12	8.3	39	1.8 U	8.6	1.8 U
Ethyl acetate	0.36 U	0.36 UD	0.36 UD	0.72 U	1.2	3.6 U	1.3	0.36 U	0.36 U	110	0.36 U	0.13 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U
Ethylbenzene	0.58	0.43 UD	0.43 UD	0.87 U	0.58	4.3 U	0.28	0.21	0.43 U	13	0.43 U	0.2	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U
Hexachlorobutadiene	1.1 U	1.1 UD	1.1 UD	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U
Hexane	0.71 U	0.7 UD	0.8 D	28 U	0.66	140 U	0.91	1.5	0.53	6.8	14 U	2.2	3.6 U	3.6 U	6.6	3.6 U	3.6 U	3.6 U	3.2	3.6 U
Isopropyl alcohol	0.5 U	0.84 D	0.25 UD	20 U	9.8 U	98 U	3.1	2.9	9.8 U	27	9.8 U	3.4 U	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1
m,p-Xylene	1.6	0.87 UD	0.87 JD	1.7 U	1.6	8.7 U	0.51	0.59	0.87 U	34	0.87 U	0.4	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U
Methyl methacrylate			0.41 UD	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	3.5	0.41 U	0.14 U								
Methylene chloride	0.9	0.78 D	2.9 D	6.9 U	2.2	8.1	2.3	2.2	2.2	2.4	1.3	4.6	7 U	19	7 U	17	7 U	13	19	12

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Extraction Well - Large Retail Space																				
	EW-COMBINE D-091610 9/16/2010	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D 091511 9/15/2011	EW-Combined-120811 12/8/2011	EW-Combined-030812 3/8/2012	EW-Combined-061412 6/14/2012	EW-Combined-091312 9/13/2012	EW-Combinde d-010313 1/13/2013	EW-Combined-031513 3/15/2013	EW-Combined-060713 6/7/2013	EW-Combined-090613 9/6/2013	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009	EW-2-030609 3/6/2009	EW-2-033109 3/31/2009	EW-3-030609 3/6/2009	EW-3-033109 3/31/2009	EW-4-030609 3/6/2009	EW-4-033109 3/31/2009	
Methyl-t-butyl ether	0.36 U	0.36 UD	0.36 UD	0.72 U	0.24	3.6 U	1.1	0.17	0.36 U	0.36 U	0.36 U	0.17	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U
n-Heptane	0.4 U	0.41 UD	0.41 UD	0.82 U	0.23	4.1 U	0.41 U	0.41 U	0.41 U	4.4	0.41 U	0.14 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
o-Xylene	0.56	0.43 UD	0.43 UD	0.87 U	0.69	4.3 U	0.28	0.25	0.43 U	16	0.43 U	0.2	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U
Propylene (Propene)	0.69 U	1.8 D	1.7 UD	14 U	6.9 U	13	3.8	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.45 U	1.8 U
Styrene	0.42 U	0.43 UD	0.43 UD	0.85 U	0.21	4.3 U	0.54	0.39	0.43 U	14	0.43 U	0.15 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	1.1 U	4.2 U
Tetrachloroethene	750	160 D	920 D	440	8.1	170	530	910	850	60	23	250	600	1200	2300	2500	73	310	31	170	
Tetrahydrofuran	31	11 D	11 D	21	0.27	8.3	3800	110	1.8	4.1	7.2	10	6.3	21	19	3 U	32	14	37	5.1	
Toluene	3.5	0.38 D	1.4 D	0.75 U	2.5	3.8 U	1.4	0.87	0.38 U	74	0.57	0.67	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	1.4	3.8 U	
trans-1,2-Dichloroethene	6.6	0.6 D	1.9 D	3.5	1.1	2 U	1.7	1.9	1	0.86	0.62	2.6	9.2	23	69	180	4 U	8.8	2.5	8	
trans-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U
Trichloroethene	3200	240 D	1800 D	1900	97	730	1500	2600	2000	380	280	1200	31000	42000	25000	25000	8600	19000	2700	5500	
Trichlorofluoromethane	410	71 D	200 D	610	200	150	260	100	230	130	140	410	520	540	1300	1800	430	840	240	370	
Trichlorotrifluoroethane	0.76 U	0.77 UD	0.77 UD	1.5 U	0.89	3.8 U	0.77 U	0.37	0.77 U	0.92	1.4	1.3	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	
Vinyl acetate	0.71 U	0.7 UD	0.35 UD	0.70 U	0.35 U	7 U	1.4	0.7 U	0.70 U	0.7 U	7 U	2.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U	
Vinyl chloride	0.4	0.26 UD	0.26 UD	0.51 U	0.26 U	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.09 U	2.7	4.8	9.4	8.1	2.6 U	2.6 U	0.65	2.6 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Post Treatment - Large Retail Space								CT IACTIND 2003 (ug/m ³)	Indoor Air - Large Retail Space												
	Post carbon- 020309 2/3/2009	POST CARBON- 021109 2/11/2009	POST CARBON- 021809 2/18/2009	POST CARBON- 022609 2/26/2009	POST CARBON- 041409 4/14/2009	POST CARBON- 100809 10/8/2009	Post- Carbon- 010810 1/8/2010	IA-1 011609 1/16/2009		IA-1- 020309 2/3/2009	IA-1- 021109 2/11/2009	IA-1- 021809 2/18/2009	IA-1- 022609 2/26/2009	IA-1- 030609 3/6/2009	IA-1- 033109 3/31/2009	IA-1- 041409 4/14/2009	IA-1- 042409 4/24/2009	IA-1- 091709 9/17/2009	IA-1- 092409 9/24/2009	IA-1- 100109 10/1/2009	IA-1- 100809 10/8/2009	IA-1- 120209 12/2/2009
Methyl-t-butyl ether	0.18 U	0.9 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U
n-Heptane	1.8	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	NA	0.23	0.2 U	0.59	0.75	0.2 U	0.2 U	0.14 U	0.67	0.2 U	0.2 U	0.2 U	0.26	0.42	
o-Xylene	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	500	0.26	0.33	0.76	0.99	0.3	0.22 U	0.22 U	0.16 U	0.7	0.31	0.4	0.28	0.4	0.52
Propylene (Propene)	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U	NA	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.25 U
Styrene	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U	290	0.21 U	0.21 U	0.21	0.28	0.21 U	0.21 U	0.15 U	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.19
Tetrachloroethene	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9	5	6.6 [a]	0.57	4.2	3.2	2.6	4.9	1.5	1.9	6.1 [a]	0.34 U	0.34 U	2	1.1	3.2
Tetrahydrofuran	6.8	22	40	18	210	4.1	6.5	NA	12	1.2	1.3	0.48	0.32	0.15 U	0.15 U	0.23	0.4	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U
Toluene	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	500	1.7	1.4	4	5.7	2.3	0.93	1.7	0.72	5.7	1.3	1.1	0.78	1.2	2.8
trans-1,2-Dichloroethene	0.2 U	1 U	0.4 U	28	40 U	7.7	15	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
trans-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U
Trichloroethene	2	11	16	2.7	54 U	1	1.0	1	4.2	0.46	1.6	1.4	0.65	1.5	0.57	0.74	1.6	0.27 U	0.27 U	1.1	0.56	0.69
Trichlorofluoromethane	0.71	1.4 U	23	6700	84	180	210	500	2.1	1.4	1.7	3.1	1.6	1.7	1.2	1.2	1.5	1.4	1.3	1.2	1.2	1.3
Trichlorotrifluoroethane	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51	NA	0.65	0.64	0.47	0.46	0.67	0.48	0.59	0.54	1.7	0.48	0.44	0.45	0.51	0.52
Vinyl acetate	0.71 U	0.9 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.25 U
Vinyl chloride	0.13 U	30	13	4.5	26 U	0.13 U	0.13 U	1.9	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.1 U	0.16	0.13 U	0.13 U	0.17	0.13 U	0.1 U

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
	IA-1-010810 1/8/2010	IA-1-012810 1/28/2010	IA-1-020510 2/5/2010	IA-1-021210 2/12/2010	IA-1-021910 2/19/2010	IA-1-032610 3/26/2010	IA-1-043010 4/30/2010	IA-1-052810 5/28/2010	IA-1-070110 7/1/2010	IA-1-091610 9/16/2010	IA-1-120710 12/7/2010	IA-1-021711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-1-120811 12/8/2011	IA-1-030812 3/8/2012	IA-1-061412 6/14/2012	IA-1-091312 9/13/2012	IA-1-010313 1/3/2013	IA-1-031513 3/15/2013	IA-1-060713 6/7/2013	IA-1-090613 9/6/2013	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.76	0.30	0.88	0.27 U	1.2	0.33	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.62 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,1,2-Tetrachloroethane																0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.35 J
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U
1,2,4-Trimethylbenzene	0.37	0.25 U	0.26	0.25 U	0.25 U	0.25 U	0.25 U	0.4	0.43	0.56	0.25 U	0.55	0.25 U	0.25 U	0.1	0.15 U	0.16	0.55	0.17 U	0.17 U	0.21	0.32	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.056	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U													
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.044	0.15 U	0.059	0.32	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane															0.18 U								
2-Butanone	1.6	0.3 U	2.4	1.1	1.2	1.3	0.78	2.6	3.3	0.85	0.68	1.7 B	2.9 U	5.9 U	1.8	1.2	1.4	3	0.87	0.64	2.9	2	
2-Hexanone	0.36	0.2 U	0.47	0.2 U	0.27	0.27	0.2 U	0.67	0.75	0.2 U	0.2 U	0.2 U	4.1 U	0.62	0.22	0.26	0.12 U	0.28	0.14 U	0.14 U	0.38	0.27	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.071	0.19	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.22	0.2 U	0.2 U	0.2 U	0.28	0.35	0.35	0.2 U	0.2 U	0.2 U	0.23	0.39	0.13	0.093	0.26	0.14 U	0.14 U	0.24	0.52	
Acetone	12	2.0	19	7.3	8.5	7	6.5	18	18	11	12 B	15 B	11 B	18	8	6	12	16	7	5	21	35	
Benzene	1.2	0.16 U	0.98	0.64	0.53	0.59	0.64	0.5	0.46	0.8	0.49	1.5	0.25	0.32	0.47	0.34	0.19	0.67	0.51	0.72	0.28	0.75	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.33	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.23	
Carbon tetrachloride	0.43	0.31 U	0.40	0.31 U	0.45	0.44	0.48	0.55 [a]	0.52	0.5	0.46	0.47	0.53	0.57 [a]	0.49	0.46	0.46	0.39	0.54	0.44	0.53	0.53	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	0.26	0.24 U	0.47	0.43	0.24 U	0.24 U	0.25	0.24 U	0.24 U	3.8	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.097	0.19	0.17 U	0.17 U	0.17 U	0.2	
Chloromethane	1.1	1.4	1.3	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1	0.92	1.3	0.93	1.3	1.6	1.3	0.99	1.1	1.4	1.2	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.56	0.2 U	1.3	0.2 U	0.5	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.15	0.059 U	0.12 U	0.045	0.14 U	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	3.1	2.4	2.4	2.6	3.0	1.6	2.2	2.3	2.7	1.7	2	3.1	1.5	2	2.6	2.1	2.7	2.7	2.5	1.7	3.2	1.9	
Ethanol	8.4	7.0	29	19	43	4.6	4.4	6	6.5	9	2.7	9	2.8	6.4	2.2	3.2	4.4	8.5	3.1	2	26	23	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.92	0.26	0.57	0.4	0.21	0.33	0.13 U	
Ethylbenzene	0.40	0.22 U	0.32	0.22 U	0.22 U	0.22 U	0.23	0.29	0.27	0.51	0.22 U	0.54	0.22 U	0.22 U	0.14	0.1	0.11	0.47	0.18	0.15 U	0.19	0.35	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	0.74	0.18 U	0.82	1.3	0.45	0.2	1.1	0.8	0.46	0.61	0.35 U	1.9	0.43	7.0 U	0.39	0.72	0.55	1.3	0.67	0.64	0.79	19	
Isopropyl alcohol	2.4	0.25 U	9.4	0.25 U	1.6	0.65	3.4	0.12 U	0.74	1.4	0.25 U	1.7	1.2 U	4.9 U	2.9 U	0.64	2.9 U	1.9	3.4 U	0.36	3.4 U	3.4 U	
m,p-Xylene	1.1	0.43 U	1.0	0.43 U	0.43 U	0.5	0.77	1.1	1.2	1.7	0.43 U	1.6	0.42 J	0.51	0.41	0.22	0.36	1.7	0.79	0.3	0.79	1	
Methyl methacrylate											0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15	
Methylene chloride	0.7 U	1.4	1.5	1.9	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.56	0.56	4.8	1.3	1.7 U	1.6	3.3	1.2	1.8	1.3	1.9	1.3	34	

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Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.5	0.2 U	0.20 U	0.079	0.12 U	0.093	0.44	0.14 U	0.14 U	0.14 U	0.14 U	0.81
o-Xylene	0.44	0.22 U	0.38	0.22 U	0.22 U	0.22 U	0.28	0.46	0.51	0.69	0.22 U	0.56	0.22 U	0.22 U	0.15	0.096	0.14	0.66	0.25	0.15 U	0.27	0.42	
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.1	1.7	2.4 U	2.4 U	2.4 U	2.4 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.31	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.85	0.13 U	0.038	0.14	0.15 U	0.15 U	0.15 U	0.27	
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	1.2	0.34 U	4.5	0.55	1.1	0.34 U	3.3	5.6 [a]	0.34 U	0.47	0.84	0.21	0.065	2.7	0.24 U	0.24 U	0.24 U	0.24 U	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.24	0.16	0.15 U	0.15 U	0.15 U	0.15 U	0.14	0.088 U	0.088 U	0.1 U	0.10 U	0.1 U	0.1 U	0.27	
Toluene	2.1	0.19 U	0.82	0.69	0.58	0.8	1.3	0.91	0.99	2.5	0.44	3	0.58	0.93	1.6	0.3	0.64	2.8	0.47	0.49	1	4.2	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.31	0.39	0.27 U	1.5	0.27 U	0.4	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.21	0.19 U	0.19 U	0.19 U	0.19 U	
Trichlorofluoromethane	2.5	0.81	1.3	1.5	1.5	1.4	1.2	1.3	1.4	2.7	1.2	1.7	1.1	1.8	1	0.89	1.8	1.7	1.6	1.3	1.9	2.4	
Trichlorotrifluoroethane	0.63	0.38 U	0.71	0.63	0.55	0.55	0.48	0.59	0.53	0.48	0.57	0.64	0.67	0.59	0.69	0.4	0.59	0.57	0.55	0.79	1.1	0.63	
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-2 011609 1/16/2009	IA-2- 020309 2/3/2009	IA-2- 021109 2/11/2009	IA-2- 021809 2/18/2009	IA-2- 022609 2/26/2009	IA-2- 041409 4/14/2009	IA-2- 042409 4/24/2009	IA-2- 091709 9/17/2009	IA-2- 092409 9/24/2009	IA-2- 100109 10/1/2009	IA-2- 100809 10/8/2009	IA-2- 012810 1/28/2010	IA-2- 020510 2/5/2010	IA-2- 021210 2/12/2010	IA-2- 021910 2/19/2010	IA-2- 032610 3/26/2010	IA-2- 043010 4/30/2010	IA-2- 091610 9/16/2010	IA-2- 070110 7/1/2010	IA-2- 091610 9/16/2010	IA-2- 120710 12/7/2010	IA-2- 021711 2/17/2011
1,1,1-Trichloroethane	9.9	0.63	1.1	1.1	0.44	1.4	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane																						
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.72	0.2 U	0.2 U	0.2 U	0.32	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	0.41	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.25 U	0.37	0.7	0.65	0.3	0.18 U	0.25 U	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.52	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.11 U	0.11 U	0.3	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dioxane																						
2-Butanone	21	4.1	4.6	3	2.9	0.95	1.6	1.1	2.3	0.81	1	2.1	0.70	0.44	0.3 U	0.96	1.3	3.1	3.4	0.96	0.36	1.9 B
2-Hexanone	0.2 U	0.2 U	0.35	0.26	0.2 U	0.14 U	0.2 U	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.2 U	0.24
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.35	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.28	0.49	0.34	0.2 U	0.2 U	
Acetone	17	9.6	14	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B
Benzene	1	0.67	1.8	3	0.77	0.58	0.44	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.22	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.33	0.41	0.55 [a]	0.57 [a]	0.48	0.41	0.41	0.44	0.4	0.46	0.42	0.31 U	0.40	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.5	0.48	0.31 U
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.25	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.47	0.40	0.24 U	0.24 U	0.24 U	0.24 U	3.4	0.24 U	0.24 U	
Chloromethane	1.1	1	1.3	1.3	1	1.1	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.8	1.2	1.2	1.1	0.96	0.97
cis-1,2-Dichloroethene	2.1	0.24	1.1	1.1	0.95	0.59	1.6	0.2 U	0.2 U	0.79	0.48	0.58	0.2 U	0.2 U	0.2 U	0.2 U	1	0.2 U	0.61	0.2 U	1.7	0.2 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	
Cyclohexane	0.17 U	0.17 U	0.44	0.61	0.17 U	0.12 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	1.8	2.2	2.6	2.9	2.7	2.1	2.9	2	2.1	2.3	2.1	2.2	2.5	2.6	3.0	1.6	2.0	2.4	2.6	1.7	1.9	3.2
Ethanol	5.5	8.8	12	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9	5	7.6	9	2.7	10
Ethyl acetate	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.26	0.28	0.65	0.79	0.3	0.18	0.22 U	0.22 U	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U	0.5
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	0.88	0.57	1.3	1.6	0.69	0.72	0.74	0.41	0.42	0.71	1	0.61	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U	1.6
Isopropyl alcohol	3.7	3.1	4.5	4.5	4.7	5.6	28	340	5.7	3.3	0.25 U	0.25 U	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	0.25 U	2
m,p-Xylene	0.76	0.88	2	2.6	0.93	0.61	0.63	0.71	0.93	0.78	1.1	1.3	1.1	0.43 U	0.43 U	0.47	0.75	0.96	1.3	1.5	0.43 U	1.5
Methyl methacrylate																					0.2 U	0.2 U
Methylene chloride	2	30	4	1.6	1.8	4	4.2	0.7 U	0.7 U	0.7 U	0.7 U	1.4	0.90	1.9	0.7 U	0.7 U	0.7 U	1.3	0.53	0.61	4.2	

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Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.23	0.2 U	0.58	0.73	0.22	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.83	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.8	0.34	0.2 U	0.48
o-Xylene	0.3	0.34	0.76	0.89	0.34	0.22	0.22	0.27	0.42	0.3	0.44	0.46	0.40	0.22 U	0.22 U	0.22 U	0.29	0.44	0.57	0.63	0.22 U	0.56	
Propylene (Propene)	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	
Styrene	0.21 U	0.21 U	0.21 U	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.36	0.24	0.21 U	0.21 U	
Tetrachloroethene	7.5 [a]	0.64	4.2	3.2	3.3	2.2	7.6 [a]	0.34 U	0.35	1.7	1	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6	0.43	1.4	0.34 U	3.2	5.2 [a]	
Tetrahydrofuran	12	1.2	1.2	0.49	0.41	0.21	0.28	0.15 U	0.15 U	0.15 U	0.15 U	1.6	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.15 U	
Toluene	1.7	1.3	4	5.5	2.3	1	1.2	1.1	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.8	1.3	0.91	1.3	2.2	0.41	2.9	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	
Trichloroethene	4.4	0.56	1.6	1.4	0.91	0.77	1.9	0.27 U	0.27 U	0.99	0.57	0.79	0.27 U	0.27 U	0.27 U	0.27 U	1.2	0.27 U	0.53	0.27 U	1.7	0.27 U	
Trichlorofluoromethane	2	1.2	1.7	2.8	1.6	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.4	1.1	1.4	1.3	1.3	1.6	2.5	1.2	1.8	1.8	
Trichlorotrifluoroethane	0.69	0.58	0.49	0.46	0.64	0.56	0.74	0.5	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44	0.53	0.94	0.45	0.59	0.71	
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.18 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	
Vinyl chloride	0.27	0.13 U	0.18	0.2	0.13 U	0.1 U	0.18	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	IA-2-030812 3/8/2012	IA-2-061412 6/14/2012	IA-2-091312 9/13/2012	IA-2-010313 1/3/2013	IA-2-031513 3/15/2013	IA-2-060713 6/7/2013	IA-2-090613 9/6/2013	IA-3-011609 1/16/2009	IA-3-020309 2/3/2009	IA-3-021109 2/11/2009	IA-3-021809 2/18/2009	IA-3-022609 2/26/2009	IA-3-041409 4/14/2009	IA-3-042409 4/24/2009	IA-3-091709 9/17/2009	IA-3-092409 9/24/2009	IA-3-100109 10/1/2009	IA-3-100809 10/8/2009	IA-3-012810 1/28/2010
1,1,1-Trichloroethane	0.27 U	0.27 U	0.13	0.082 U	0.16 U	0.08	0.19 U	0.19 U	0.19 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.45
1,1,1,2-Tetrachloroethane		0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U												
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.20 U	0.12 U	0.061 U	0.12 U	0.043	0.14 U	0.14 U	0.14 U	0.14 U	0.68	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.045	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.088	0.15 U	0.19	0.48	0.98	0.13	0.43	0.2	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	0.25 U	0.39	0.44
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.20 U	0.063	0.061 U	0.051	0.08	0.16	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.11	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane											0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.15 U	0.15 U	0.08	0.26	0.28	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42
1,3-Butadiene	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.08	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.30 U	0.18 U	0.18 U	0.18 U	0.093	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane		0.18 U																				
2-Butanone	2.9 U	5.9 U	0.93	0.84	1.4	2.8	5.1	2.4	4.2	2.1	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	1.9
2-Hexanone	4.1 U	0.5	0.12 U	0.16	0.15	0.32	0.17	0.22	0.51	0.41	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	0.2 U	0.37	0.52
4-Ethyltoluene	0.25 U	0.25 U	0.15 U	0.15 U	0.086	0.19	0.24	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.2 U	0.24	0.1	0.11	0.12	0.19	3.6	0.14 U	0.54	0.46	0.2 U	0.2 U	0.29	0.34	0.2 U	0.14 U	0.22	0.2 U	0.42	0.2 U	0.2 U	0.2 U
Acetone	8.9 B	18	6.2	5.4	14	17	19	46	32	22	18	12	17	24	9.7	7.5	50	11	19	6.7	11	14
Benzene	0.26	0.3	0.39	0.36	0.24	0.62	0.65	0.91	0.56	0.32	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	0.46	1.3
Benzyl chloride	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.9	0.47	0.39	0.33	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.62 [a]	0.52	0.49	0.48	0.45	0.43	0.56 [a]	0.45	0.58	0.45	0.34	0.45	0.52	0.6 [a]	0.43	0.22 U	0.42	0.4	0.43	0.4	0.42	0.31 U
Chlorobenzene	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.58	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.14	0.093 U	0.093 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.24 U	0.24 U	0.085	0.073 U	0.14	0.25	0.17 U	0.15	0.17 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	0.95	1.2	0.93	1	1.4	1.3	1	2.7	1.7	0.98	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	0.97	1	1.2
cis-1,2-Dichloroethene	0.2 U	0.20 U	0.17	0.059 U	0.12 U	0.064	0.14 U	0.14 U	0.14 U	0.14 U	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	0.94	0.49	0.59
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.26	1.9	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.46	0.6	0.17 U	0.15	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	1.6	2	2.7	2.1	2.7	2.8	2.6	1.7	3.3	1.8	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	2.2	2.2	2.3
Ethanol	2.5	8.5	2.1	2.1	10	9.8	8.1	380	66	46	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	4.5	5	13
Ethyl acetate	0.18 U	0.18 U	0.22	0.24	3.5	0.71	0.59	2	0.39	0.28	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.22 U	0.22 U	0.13	0.13 U	0.13 U	0.41	4.1	0.25	0.39	0.17	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23	0.22 U	0.24	0.43
Hexachlorobutadiene	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	0.31	7.0 U	0.32	0.34	2.6	2.4	15	2.3	1.6	0.65	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47	0.37	0.71	0.55
Isopropyl alcohol	1.2 U	4.9 U	2.9 U	0.76	2.9 U	2.8	3.4 U	3.6	3.4 U	1.7	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9	0.25 U	0.25 U	0.25 U
m,p-Xylene	0.36 J	0.57	0.39	0.18	0.38	1.3	17	0.92	1.4	0.48	0.75	0.9	2	2.6	0.65	0.57	0.66	0.7	0.99	0.65	0.87	1.2
Methyl methacrylate	0.2 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U												
Methylene chloride	1	7.5	1.1	1.2	6.6	6.4	1.1	3.6	1.5	1.1	2.2	31	3.1	3.5	33	1.2	3.6	2.4	0.7 U	0.7 U	0.7 U	1.4

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
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Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
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Methyl-t-butyl ether	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.20 U	0.091	0.12 U	0.11	0.4	3.1	0.33	0.41	0.2	0.22	0.2 U	0.61	0.77	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.24	0.73
o-Xylene	0.22 U	0.23	0.14	0.083	0.17	0.55	5.1	0.33	0.52	0.2	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45	0.27	0.34	0.44	
Propylene (Propene)	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	0.7	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	
Styrene	0.21 U	0.21 U	0.059	0.13 U	0.097	0.19	0.45	0.12	0.15 U	0.17	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.40
Tetrachloroethene	0.34 U	0.45	0.92	0.23	0.09	2	0.24	0.18	0.64	0.25	6.1 [a]	0.56	4.3	3.3	1.9	2.2	7.1 [a]	0.34 U	0.34 U	2	1.1	2.2	
Tetrahydrofuran	0.15 U	0.15 U	0.097	0.088 U	0.048	0.1 U	0.24	0.1 U	0.1 U	0.1 U	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.40
Toluene	0.55	0.99	1.6	0.24	0.9	2.6	5.6	1.5	2.8	1.3	1.7	1.5	4.7	5.8	2.1	1	1.2	1.2	1.1	0.73	1.1	2.5	
trans-1,2-Dichloroethene	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.27 U	0.27	0.081 U	0.16 U	0.2	0.19 U	0.053	0.19 U	0.19 U	3.9	0.49	1.7	1.5	0.53	0.77	1.8	0.27 U	0.27 U	1.1	0.54	0.75	
Trichlorofluoromethane	1.2	1.9	1.1	0.94	1.8	2.6	2.7	1.3	2	1.3	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2	1.2	1.2	1.2	1.2
Trichlorotrifluoroethane	0.71	0.61	0.71	0.42	0.57	0.64	0.56	0.7	1.7	0.6	0.6	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46	0.49	0.47	0.49	
Vinyl acetate	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	0.13 U	0.13 U	0.18	0.13 U	0.13 U	

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Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
	IA-3-020510 2/5/2010	IA-3-021210 2/12/2010	IA-3-021910 2/19/2010	IA-3-032610 3/26/2010	IA-3-043010 4/30/2010	IA-3-052810 5/28/2010	IA-3-070110 7/1/2010	IA-3-091610 9/16/2010	IA-3-120710 12/7/2010	IA-3-021711 2/17/2011	IA-3-060211 6/2/2011	IA-3-091511 9/15/2011	IA-3-120811 12/8/2011	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013	IA-3-031513 3/15/2013	IA-3-060713 6/7/2013	IA-3-090613 9/6/2013	IA-4-011609 1/16/2009	IA-4-020309 2/3/2009	
1,1,1-Trichloroethane	0.71	0.29	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.11	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	10	0.62
1,1,1,2-Tetrachloroethane														0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.46		
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.73	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.42	0.2 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.6	0.25 U	0.49	0.25 U	0.25 U	0.071	0.1	0.19	0.47	0.17 U	0.076	0.26	0.33	0.26	0.37	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056	0.061 U	0.051	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U									0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.059	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	
1,4-Dioxane													0.18 U										
2-Butanone	2	1.2	1.6	0.51	1	2.2	3.3	0.95	0.39	0.76 B	2.9 U	5.9 U	1.2	0.45	2.4	2.7	0.93	2.2	2	2.9	21	4.4	
2-Hexanone	0.39	0.22	0.39	0.2 U	0.29	0.52	0.67	0.2 U	0.2 U	0.2 U	4.1 U	0.24	0.093	0.12 U	0.33	0.22	0.14 U	0.32	0.28	0.31	0.2 U	0.33	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074	0.15	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.34	0.2 U	0.2 U	0.2 U	0.20 U	0.084	0.12 U	0.19	0.21	0.14 U	0.14 U	0.19	0.36	0.2 U	0.2 U	
Acetone	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2	3.9	13	12	6.7	12	28	16	17	10	
Benzene	0.86	0.67	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.3	0.39	0.35	0.23	0.66	0.53	0.75	0.23	0.75	1.1	0.68	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.25	0.16 U	0.16 U	
Carbon tetrachloride	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57 [a]	0.41	0.45	0.6 [a]	0.64 [a]	0.51	0.5	0.49	0.43	0.38	0.32	0.39	0.42	0.47	0.4	0.43	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.098	0.093 U	0.13 U	0.13 U	
Chloroform	0.53	0.48	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	3.7	0.24 U	0.24 U	0.24 U	0.24 U	0.079	0.073 U	0.15	0.19	0.17 U	0.075	0.17 U	0.21	0.24 U	0.24 U	
Chloromethane	2.9	1.3	1.2	1.1	0.85	1.2	1.2	1.1	0.98	0.97	1.2	1.4	0.84	1.1	1.4	1.3	0.95	1.3	1.3	1.1	1.2	0.99	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.51	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.17	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19	2.4	0.2 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.5	2.5	3	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	2.5	1.8	2.7	1.8	1.9	2.2	
Ethanol	40	17	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8	2.1	2.2	4.4	6.6	2.7	2.5	21	27	5.3	8.9	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.73	0.37	0.51	0.68	0.44	0.28	0.34	0.37 U	0.37 U	
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.26	0.23	0.29	0.47	0.22 U	0.47	0.36	0.22 U	0.12	0.11	0.14	0.42	0.27	0.098	0.18	0.36	0.25	0.29	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U		
Hexane	0.44	1	0.29	0.19	1.4	0.55	0.45	0.58	0.35 U	1.5	2.6	7.0 U	0.35	0.37	0.74	1.4	0.89	1	0.68	0.94	0.9	0.66	
Isopropyl alcohol	9.9	0.25 U	2	0.64	3.4	0.12 U	0.76	8.8	1.1	1.7	1.2 U	4.9 U	2.9 U	0.56	2.9 U	1.7	0.57	0.62	3.4 U	3.4 U	3.5	3.3	
m,p-Xylene	0.69	0.43 U	0.43 U	0.46	0.8	0.99	1.3	1.6	0.43 U	1.4	0.55	0.54	0.38	0.24	0.4	1.5	1	0.31	0.72	1.1	0.76	0.89	
Methyl methacrylate									0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18			
Methylene chloride	0.7 U	2.3	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.57	0.55	4.6	8	1.7 U	1.5	1.1	1.3	2.7	3.3	2.1	1.1	1.2	2.3	29	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																		IA-3-031513 3/15/2013	IA-3-060713 6/7/2013	IA-3-090613 9/6/2013	IA-4-011609 1/16/2009	IA-4-020309 2/3/2009
	IA-3-020510 2/5/2010	IA-3-021210 2/12/2010	IA-3-021910 2/19/2010	IA-3-032610 3/26/2010	IA-3-043010 4/30/2010	IA-3-052810 5/28/2010	IA-3-070110 7/1/2010	IA-3-091610 9/16/2010	IA-3-120710 12/7/2010	IA-3-021711 2/17/2011	IA-3-060211 6/2/2011	IA-3-091511 9/15/2011	IA-3-120811 12/8/2011	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013						
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.22	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	
n-Heptane	0.2 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.32	0.2 U	0.44	0.2 U	0.20 U	0.074	0.12 U	0.11	0.41	0.14 U	0.083	0.15	0.83	0.23	0.2 U	
o-Xylene	0.26	0.22 U	0.22 U	0.22 U	0.32	0.43	0.58	0.64	0.22 U	0.48	0.23	0.23	0.13	0.11	0.16	0.57	0.35	0.13	0.26	0.46	0.27	0.33	
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.3	1.8	2.4 U	1.1	2.4 U	2.4 U	0.18 U	0.18 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.23	0.34	0.26	0.21 U	0.21 U	0.21 U	0.041	0.13 U	0.1	0.14	0.15 U	0.15 U	0.15 U	0.15 U	0.3	0.21 U	0.21 U	
Tetrachloroethene	0.34 U	0.34 U	1.3	0.34 U	4.8	0.35	1.1	0.76	3.2	5.2 [a]	0.34 U	0.47	0.91	0.23	0.16	2.3	0.25	0.095	0.3	0.24 U	7.3 [a]	0.58	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.08	0.088 U	0.088 U	0.072	0.10 U	0.1 U	0.14	0.73	13	1.2	
Toluene	0.78	0.61	0.46	0.81	1.5	0.93	1.1	2.3	0.41	2.7	0.58	0.95	1.5	0.27	0.72	2.8	0.62	0.56	0.9	4.6	1.8	1.3	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	
Trichloroethene	0.27 U	0.27 U	0.4	0.27 U	1.5	0.27 U	0.47	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.17	0.19 U	0.19 U	0.19 U	0.19 U	4.7	0.48	
Trichlorofluoromethane	1.3	1.4	1.6	1.3	1.2	1.3	1.5	2.8	1.2	1.7	1.6	1.7	1	0.92	1.6	1.5	1.2	1.3	1.5	1.6	2	1.3	
Trichlorotrifluoroethane	0.52	0.57	0.52	0.57	0.45	0.52	0.54	0.45	0.55	0.67	0.74	0.54	0.69	0.44	0.56	0.54	0.59	0.65	0.65	0.62	0.72	0.59	
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.13	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	0.29	0.13 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																Indc							
	IA-4-021109	IA-4-021809	IA-4-022609	IA-4-041409	IA-4-042409	IA-4-091709	IA-4-092409	IA-4-100109	IA-4-100809	IA-4-012810	IA-4-020510	IA-4-021210	IA-4-021910	IA-4-032610	IA-4-043010	IA-4-052810	IA-4-070110	IA-4-091610	IA-4-120710	IA-4-021711	IA-4-060211	IA-4-091511		
1,1,1-Trichloroethane	1.1	1.1	0.45																					
1,1,1,2-Tetrachloroethane																							0.62 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	
1,2,4-Trimethylbenzene	0.74	0.65	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 U	0.25 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.33	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	
1,4-Dioxane																							0.18 U	
2-Butanone	6	3.2	2.5	1.1	1.6	1.5	2	1.30	1.20	0.3 U	0.69	1.2	0.50	1.60	1.50	2.20	4.8	2.4	0.96	1 B	2.9 U	5.9 U		
2-Hexanone	0.73	0.39	0.2 U	0.14 U	0.2 U	0.29	0.45	0.32	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35		
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.43	0.28	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.20 U	0.20 U	
Acetone	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	15	
Benzene	1.8	3	0.76	0.59	0.44	0.4	0.43	0.37	0.48	0.16 U	0.88	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.3	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.31	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	
Carbon tetrachloride	0.5	0.58 [a]	0.46	0.22 U	0.45	0.41	0.4	0.46	0.4	0.31 U	0.43	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46	0.57 [a]	0.68 [a]	0.52	0.52	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.41	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.46	0.39	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	3.3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1.4	1.3	1	1.1	1.2	0.9	1.1	1	1	1.3	1.3	1.3	1.2	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.5	
cis-1,2-Dichloroethene	1.1	1.1	0.98	0.61	1.7	0.2 U	0.2 U	0.84	0.48	0.2 U	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.2 U	0.20 U	0.20 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Cyclohexane	0.44	0.64	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.5	2.8	2.6	2.1	2.4	2.1	2	2.2	2.2	2.4	2.5	2.6	3.0	1.7	2.1	2.5	2.6	1.5	2	3.2	1.8	1.7	1.7	
Ethanol	12	18	8	5.2	5.5	6	6.5	4.9	5.6	7.7	34	17	31	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	7	
Ethyl acetate	0.18 U	0.19	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.65	0.78	0.29	0.16	0.22 U	0.22 U	0.27	0.22 U	0.26	0.22 U	0.26	0.22 U	0.22 U	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 U	0.22 U	
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	1.2	1.7	0.66	0.43	0.34	0.42	2.2	0.49	0.93	0.18 U	0.37	1.3	0.49	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7.0 U	7.0 U	
Isopropyl alcohol	4.7	4.8	3.9	0.18 U	13	5.6	5.2	0.25 U	0.25 U	0.96	0.25 U	0.25 U	1.9	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 U	4.9 U	
m,p-Xylene	2.1	2.6	0.89	0.58	0.49	0.61	0.93	0.69	1	0.43 U	0.81	0.43 U	0.43 U	0.49	0.8	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.53	
Methyl methacrylate																				0.2 U	0.2 U	0.2 U	0.20 U	0.20 U
Methylene chloride	1.7	2.5	1.3	1.9	2.2	0.7 U	9.7	0.7 U	0.7 U	1.5	0.7 U	1.9	0.71	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 U	1.7 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space																Indc						
	IA-4-021109 2/11/2009	IA-4-021809 2/18/2009	IA-4-022609 2/26/2009	IA-4-041409 4/14/2009	IA-4-042409 4/24/2009	IA-4-091709 9/17/2009	IA-4-092409 9/24/2009	IA-4-100109 10/1/2009	IA-4-100809 10/8/2009	IA-4-012810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010	IA-4-021910 2/19/2010	IA-4-032610 3/26/2010	IA-4-043010 4/30/2010	IA-4-052810 5/28/2010	IA-4-070110 7/1/2010	IA-4-091610 9/16/2010	IA-4-120710 12/7/2010	IA-4-021711 2/17/2011	IA-4-060211 6/2/2011	IA-4-091511 9/15/2011	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.58	0.79	0.21	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.22	0.32	0.2 U	0.51	0.2 U	0.20 U	
o-Xylene	0.78	0.87	0.33	0.22	0.22 U	0.22 U	0.42	0.28	0.4	0.22 U	0.31	0.22 U	0.22 U	0.22 U	0.22 U	0.3	0.44	0.5	0.57	0.22 U	0.53	0.22 U	0.22 U
Propylene (Propene)	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	
Styrene	0.22	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.22	0.29	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
Tetrachloroethene	4.4	3.4	3.4	2.4	7.9 [a]	0.75	0.34 U	2	1.1	0.34 U	0.34 U	0.34 U	1.4	0.34 U	4.4	0.44	1.1	0.34 U	3.4	5	0.34 U	0.45	
Tetrahydrofuran	1.3	0.47	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	
Toluene	4.3	5.8	2.3	1	1	1.1	1.3	0.76	1.2	0.19 U	0.79	0.63	0.47	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	
Trichloroethene	1.7	1.5	0.88	0.78	2	0.27 U	0.27 U	1.10	0.57	0.27 U	0.27 U	0.27 U	0.40	0.27 U	1.4	0.27 U	0.44	0.27 U	1.8	0.27 U	0.27 U	0.27 U	
Trichlorofluoromethane	1.6	3	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3	1.4	1.6	1.5	1.3	1.3	1.9	2.4	1.2	1.8	1.4	1.8	
Trichlorotrifluoroethane	0.51	0.45	0.57	0.54	0.61	0.49	0.48	0.47	0.5	0.38 U	0.55	0.58	0.55	1.3	0.48	0.51	0.59	0.43	0.54	0.7	0.71	0.52	
Vinyl acetate	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38	0.18 U	3.5 U	0.18 U	
Vinyl chloride	0.2	0.22	0.13 U	0.1 U	0.2	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	for Air - Large Retail Space								
	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013	
1,1,1-Trichloroethane	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1,1,2-Tetrachloroethane		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	
1,1,2,2-Tetrachloroethane	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	0.094	0.15 U	0.19	0.38	0.9	0.13	0.47	0.2	
1,2-Dibromoethane (EDB)	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	0.18 U	0.18	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	0.063	0.061 U	0.12 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane									
1,3,5-Trimethylbenzene	0.15 U	0.15 U	0.08	0.12	0.27	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane									
2-Butanone	1	1.5	0.97	2.3	4.7	2.3	3.9	0.95	
2-Hexanone	0.086	0.32	0.098	0.18	0.19	0.25	0.51	0.14 U	
4-Ethyltoluene	0.15 U	0.15 U	0.068	0.12	0.22	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.098	0.15	0.13	0.14 U	3.3	0.28	0.56	0.47	
Acetone	7.4	6.8	9.1	12	17	44	36	18	
Benzene	0.38	0.35	0.23	0.64	0.67	0.82	0.55	0.47	
Benzyl chloride	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Bromoform	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	0.12 U	0.12 U	0.24	0.14 U	0.14 U	0.13	0.14 U	0.14 U	
Carbon disulfide	0.93 U	0.93 U	0.052	1.1 U	1.6	0.52	0.38	0.39	
Carbon tetrachloride	0.48	0.47	0.43	0.36	0.54	0.41	0.65 [a]	0.45	
Chlorobenzene	0.14 U	0.14 U	0.14 U	0.16 U	0.47	0.16 U	0.16 U	0.16 U	
Chloroethane	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	0.085	0.073 U	0.13	0.19	0.17 U	0.11	0.17 U	0.27	
Chloromethane	1.4	1	1.3	1.3	1.1	1.3	1.6	1	
cis-1,2-Dichloroethene	0.19	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18	
cis-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	0.1 U	0.1 U	0.1 U	0.26	2.1	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.26 U	0.13 U	0.26 U	0.3 U	0.30 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	2.8	2	2.9	2.8	2.8	1.7	3.3	1.8	
Ethanol	2.4	2.5	9.4	7.3	7.5	46	79	71	
Ethyl acetate	0.16	0.21	0.38	2.4	0.13 U	0.73	0.94	0.13 U	
Ethylbenzene	0.16	0.17	0.14	0.38	4.1	0.32	0.43	0.19	
Hexachlorobutadiene	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	0.35	0.55	0.47	5	17	0.89	2.8	0.53	
Isopropyl alcohol	2.9 U	2.9 U	2.9 U	1.4	2.6	3.4 U	4	1.6	
m,p-Xylene	0.41	0.27	0.38	1.2	17	1.1	1.6	0.53	
Methyl methacrylate	0.12 U	0.12 U	0.13	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	1.5	2	0.72	12	1.3	0.97	3.1	0.89	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	for Air - Large Retail Space								
	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013	
Methyl-t-butyl ether	0.11 U	0.11 U	0.11 U	0.19	0.13 U	0.13 U	0.13 U	0.13 U	
n-Heptane	0.071	0.12 U	0.11	0.41	1.6	0.32	0.53	0.16	
o-Xylene	0.15	0.11	0.17	0.41	5.1	0.43	0.57	0.23	
Propylene (Propene)	2.1 U	2.1 U	2.1 U	1.7	2.4 U	2.4 U	2.4 U	2.4 U	
Styrene	0.077	0.092	0.55	0.093	0.52	0.099	0.15 U	0.15 U	
Tetrachloroethene	1.2	0.31	0.12	1.7	0.18	0.21	0.45	0.3	
Tetrahydrofuran	0.076	0.088 U	0.055	0.1 U	0.28	0.1 U	0.1 U	0.1 U	
Toluene	1.6	0.32	0.8	2.9	4.8	1.5	3	1.4	
trans-1,2-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	0.35	0.15	0.052	0.12	0.19 U	0.057	0.19 U	0.19 U	
Trichlorofluoromethane	1.3	0.87	1.5	1.7	2.8	1.2	2.2	1.3	
Trichlorotrifluoroethane	0.71	0.44	0.56	0.59	0.6	0.66	1.6	0.65	
Vinyl acetate	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	
Vinyl chloride	0.077 U	0.038 U	0.077 U	0.09 U	0.090 U	0.09 U	0.09 U	0.09 U	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space										
	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009	
1,1,1-Trichloroethane	0.45	0.52	0.65	0.57	0.51	0.44	0.69		0.5	0.49	0.53
1,1,1,2-Tetrachloroethane											
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane											
2-Butanone	3.3	3.4	2.1	2.6	2	1.6	3.1	2.5	2.6	1.4	
2-Hexanone	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48	0.43	0.29	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.42	0.39	0.32	0.36	0.54	0.27	0.32	0.3	0.61	0.23	
Acetone	12	13	10	11	8.5	7.7	13	11	9.8	6.9	
Benzene	0.54	0.6	0.67	0.55	0.56	0.51	0.53	0.6	0.51	0.57	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.7 [a]	0.68 [a]	0.71 [a]	0.68 [a]	0.68 [a]	0.63 [a]	0.68 [a]	0.7 [a]	0.64 [a]	0.66 [a]	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1	0.98	1	0.95	1	1	0.92	1.1	0.91	1.2	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.21	0.2 U	0.2 U	0.2 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.5	2.3	2.6	2.4	2.7	2.4	2.4	2.8	2.3	2.7	
Ethanol	65	9	6.5	5.9	6	5.6	5.9	14	44	14	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.27	0.22 U	
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
Hexane	1.1	0.21	0.18 U	0.18	0.24	0.18 U	0.19	0.21	0.2	0.18 U	
Isopropyl alcohol	3.3	3.4	3.7	3.5	3.6	3.4	4.4	3.6	2.8	3.2	
m,p-Xylene	0.58	0.57	0.58	0.55	0.49	0.5	0.48	0.53	1	0.5	
Methyl methacrylate											
Methylene chloride	5.9	1.5	1.5	1.6	1.9	1.6	1.5	1.6	1.6	1.4	

**Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island**

Parameter (ug/m ³)	Indoor Air - Large Retail Space									
	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.28	0.28	0.27	0.27	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Styrene	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.47	0.47	0.54	0.66	0.64	0.6	0.73	0.53	0.46	0.46
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	0.73	0.7	0.58	0.59	0.51	0.53	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.28	0.27	0.29	0.34	0.27	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.3	1.2	1.1	1.4	1.3	1.1	1.4	1	1.4
Trichlorotrifluoroethane	0.63	0.6	0.65	0.62	0.64	0.57	0.59	0.68	0.62	0.58
Vinyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:

[a] Carbon tetrachloride and tetrachloroethene are above the target air concentration, but are not compliance violations as indoor air concentrations are consistent with outdoor air concentrations that were sampled on the same day.

NA - not available

U - Not detected, value is the detection limit

B - Compounds detected in method blank as well as field sample

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

Prepared by/Date: EYM 10/21/13

Checked by/Date: MAM 10/21/13

5 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Table 4.
Vacuum Monitoring Results - Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Date	Pressure Differential (inches of water)			
	VMW-1	VMW-2	VMW-3	VMW-4
2/3/2009	-0.20	-0.62	-0.15	-0.12
2/18/2009	-0.509	-0.738	-0.650	-0.253
2/26/2009	-0.511	-0.710	-0.665	-0.273
3/6/2009	-0.507	-0.610	-0.715	-0.251
3/6/2009*	-0.120	-0.195	-0.230	-0.028
3/31/2009	-0.148	-0.221	-0.244	-0.072
4/14/2009	-0.140	-0.210	-0.215	-0.081
5/15/2009	-0.133	-0.193	-0.208	-0.087
9/17/2009	-0.132	-0.172	-0.209	-0.087
9/24/2009	-0.146	-0.189	-0.254	-0.094
10/1/2009	-0.181	-0.232	-0.233	-0.097
10/8/2009	-0.197	-0.212	-0.255	-0.087
12/29/2009**	-0.021	-0.020	-0.160	-0.023
1/28/2010	-0.947	-0.642	-0.709	-0.237
2/5/2010	-0.497	-0.714	-0.510	-0.258
2/12/2010	-0.509	-0.706	-0.537	-0.261
2/19/2010	-0.526	-0.733	-0.667	-0.242
3/26/2010	-0.636	-0.860	-0.671	-0.331
4/30/2010	-0.519	-0.713	-0.378	-0.287
5/28/2010	-0.546	-0.727	+1.371	-0.279
7/1/2010	-0.505	-0.678	+1.568	-0.272
9/16/2010	-0.496	-0.654	+0.980	-0.272
12/7/2010	-0.126	-0.202	-0.155	-0.052
2/17/2011	-0.491	-0.683	-0.737	-0.263
6/2/2011	-0.561	-0.767	-0.393	-0.290
9/15/2011	-0.517	-0.710	+1.071	-0.260
12/8/2011	-0.609	-0.826	+1.502	-0.313
3/8/2012	-0.422	-0.680	+0.329	-0.288
6/14/2012	-0.372	-0.767	+2.389	-0.280
9/13/2012	-0.543	-1.021	-0.665	-0.283
1/3/2013	-0.495	-0.628	-1.141	-0.674
3/15/2013	-0.539	-0.636	-0.754	-0.254
6/7/2013	-0.121	-0.681	-0.787	-0.223
9/6/2013	-0.421	-0.743	-0.766	-0.265

* vacuum reduced at extraction wells

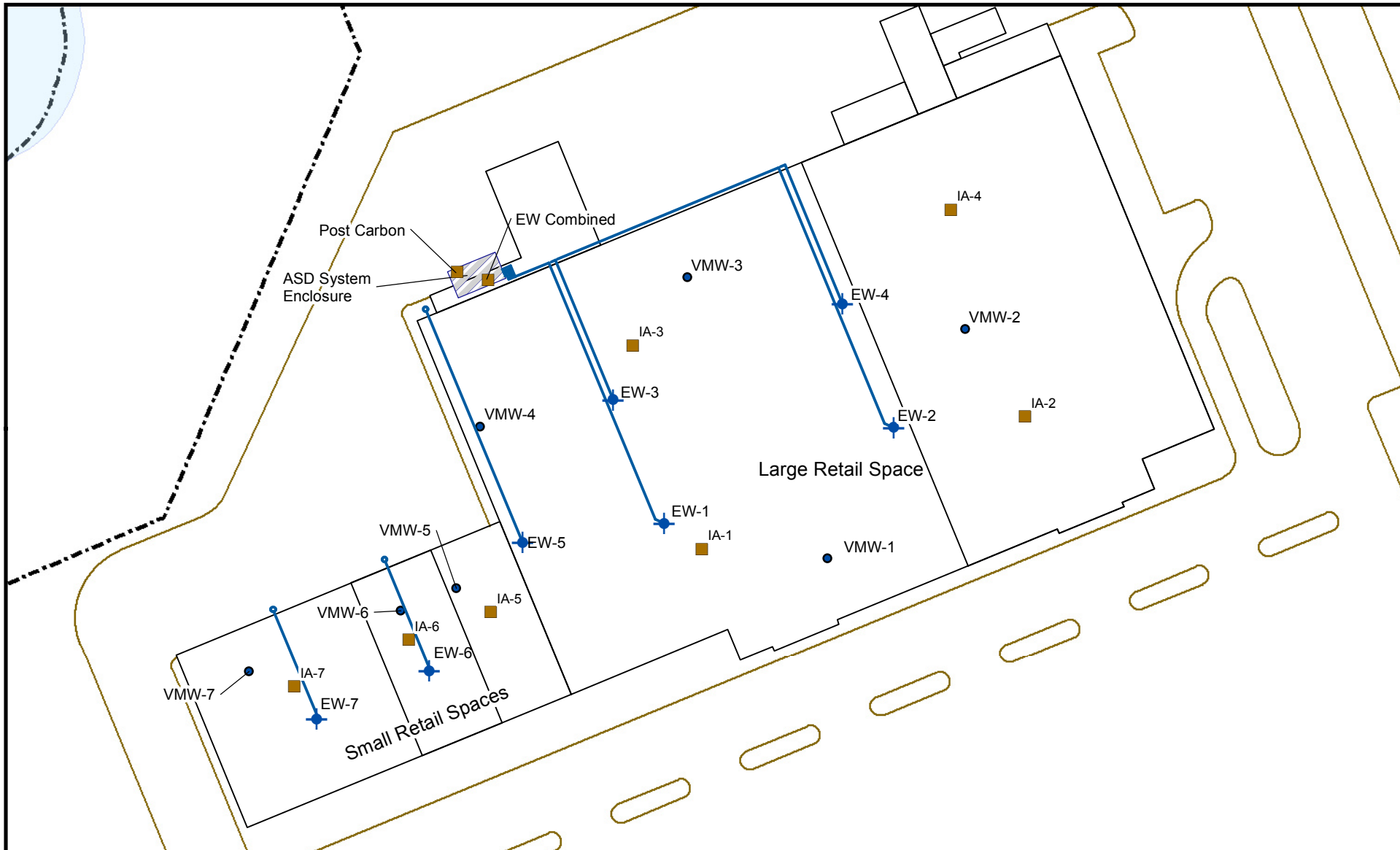
** ASD system offline

Prepared by/Date: MAM 10/17/13

Checked by/Date: DLC 10/21/13



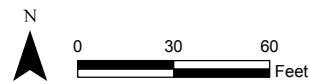
FIGURES



All locations are approximate

Legend

- Air Sample Location
- Vacuum Monitoring Well
- ◆ Extraction Well
- Extraction Well Piping
- Current Building
- Pavement Outline
- Effluent Location



Prepared/Date: BJR 04/15/13 | Checked/Date: MAM 04/15/13

Figure 1
Vapor Mitigation
Sample Locations

Former Gorham Manufacturing Facility
333 Adelaide Avenue
Providence, Rhode Island



Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Third Quarter, 2013
October 31, 2013



APPENDIX A

Laboratory Reports

October 10, 2013

Kelly Chatterton
AMEC E&I, Inc.
107 Audubon Rd., Bldg. 2, Suite 301
Wakefield, MA 01880

Project Location: Providence RI
Client Job Number:
Project Number: 3650080114
Laboratory Work Order Number: 13J0133

Enclosed are results of analyses for samples received by the laboratory on October 3, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James M. Georgantas
Project Manager



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

AMEC E&I, Inc.
107 Audubon Rd., Bldg. 2, Suite 301
Wakefield, MA 01880
ATTN: Kelly Chatterton

REPORT DATE: 10/10/2013

PURCHASE ORDER NUMBER: C012203270

PROJECT NUMBER: 3650080114

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 13J0133

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

PROJECT LOCATION: Providence RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EW-7-100313	13J0133-01	Soil Gas		EPA TO-15	
IA-7-100313	13J0133-02	Indoor air		EPA TO-15	
AA-1-100313	13J0133-03	Ambient Air		EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

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

Analyte & Samples(s) Qualified:

Vinyl Acetate

13J0133-02[IA-7-100313], 13J0133-03[AA-1-100313], B082494-BLK1, B082494-BS1

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

Analyte & Samples(s) Qualified:

Acetone

13J0133-01[EW-7-100313], 13J0133-02[IA-7-100313], 13J0133-03[AA-1-100313], B082494-BS1, B082497-BS1

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

Analyte & Samples(s) Qualified:

Acetone, Isopropanol

13J0133-01[EW-7-100313], B082497-BS1, 13J0133-02[IA-7-100313], B082494-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.



Daren J. Damboragian
Laboratory Manager

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
Field Sample #: EW-7-100313
Sample ID: 13J0133-01
 Sample Matrix: Soil Gas
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1078
 Canister Size: 6 liter
 Flow Controller ID: 4038
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	15	4.0	1.4	L-05, V-06	35	9.5	2	10/7/13 21:22	TPH
Benzene	0.60	0.10	0.052		1.9	0.32	2	10/7/13 21:22	TPH
Benzyl chloride	ND	0.10	0.019		ND	0.52	2	10/7/13 21:22	TPH
Bromodichloromethane	ND	0.10	0.022		ND	0.67	2	10/7/13 21:22	TPH
Bromoform	ND	0.10	0.019		ND	1.0	2	10/7/13 21:22	TPH
Bromomethane	ND	0.10	0.069		ND	0.39	2	10/7/13 21:22	TPH
1,3-Butadiene	ND	0.10	0.051		ND	0.22	2	10/7/13 21:22	TPH
2-Butanone (MEK)	2.9	4.0	0.075	J	8.5	12	2	10/7/13 21:22	TPH
Carbon Disulfide	ND	1.0	0.034		ND	3.1	2	10/7/13 21:22	TPH
Carbon Tetrachloride	0.064	0.10	0.024	J	0.40	0.63	2	10/7/13 21:22	TPH
Chlorobenzene	ND	0.10	0.035		ND	0.46	2	10/7/13 21:22	TPH
Chloroethane	0.23	0.10	0.038		0.61	0.26	2	10/7/13 21:22	TPH
Chloroform	0.56	0.10	0.023		2.7	0.49	2	10/7/13 21:22	TPH
Chloromethane	ND	0.20	0.044		ND	0.41	2	10/7/13 21:22	TPH
Cyclohexane	ND	0.10	0.057		ND	0.34	2	10/7/13 21:22	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	2	10/7/13 21:22	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.022		ND	0.77	2	10/7/13 21:22	TPH
1,2-Dichlorobenzene	ND	0.10	0.027		ND	0.60	2	10/7/13 21:22	TPH
1,3-Dichlorobenzene	ND	0.10	0.022		ND	0.60	2	10/7/13 21:22	TPH
1,4-Dichlorobenzene	ND	0.10	0.025		ND	0.60	2	10/7/13 21:22	TPH
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.043		ND	0.49	2	10/7/13 21:22	TPH
1,1-Dichloroethane	6.1	0.10	0.028		25	0.40	2	10/7/13 21:22	TPH
1,2-Dichloroethane	ND	0.10	0.028		ND	0.40	2	10/7/13 21:22	TPH
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40	2	10/7/13 21:22	TPH
cis-1,2-Dichloroethylene	6.1	0.10	0.038		24	0.40	2	10/7/13 21:22	TPH
trans-1,2-Dichloroethylene	8.1	0.10	0.026		32	0.40	2	10/7/13 21:22	TPH
1,2-Dichloropropane	ND	0.10	0.035		ND	0.46	2	10/7/13 21:22	TPH
cis-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45	2	10/7/13 21:22	TPH
trans-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45	2	10/7/13 21:22	TPH
Ethanol	16	4.0	1.8		30	7.5	2	10/7/13 21:22	TPH
Ethyl Acetate	ND	0.10	0.075		ND	0.36	2	10/7/13 21:22	TPH
Ethylbenzene	0.13	0.10	0.028		0.56	0.43	2	10/7/13 21:22	TPH
4-Ethyltoluene	0.054	0.10	0.023	J	0.27	0.49	2	10/7/13 21:22	TPH
Heptane	0.27	0.10	0.032		1.1	0.41	2	10/7/13 21:22	TPH
Hexachlorobutadiene	ND	0.10	0.038		ND	1.1	2	10/7/13 21:22	TPH
Hexane	0.25	4.0	0.18	J	0.90	14	2	10/7/13 21:22	TPH
2-Hexanone (MBK)	ND	0.10	0.026		ND	0.41	2	10/7/13 21:22	TPH
Isopropanol	6.9	4.0	0.12	V-06	17	9.8	2	10/7/13 21:22	TPH

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
Field Sample #: EW-7-100313
Sample ID: 13J0133-01
 Sample Matrix: Soil Gas
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1078
 Canister Size: 6 liter
 Flow Controller ID: 4038
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
		RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.031		ND	0.36	2	10/7/13 21:22	TPH
Methylene Chloride	0.49	1.0	0.12	J	1.7	3.5	2	10/7/13 21:22	TPH
Methyl methacrylate	ND	0.10	0.031		ND	0.41	2	10/7/13 21:22	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.024		ND	0.41	2	10/7/13 21:22	TPH
Propene	ND	4.0	0.31		ND	6.9	2	10/7/13 21:22	TPH
Styrene	0.11	0.10	0.019		0.45	0.43	2	10/7/13 21:22	TPH
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2	2	10/7/13 21:22	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.024		ND	0.69	2	10/7/13 21:22	TPH
Tetrachloroethylene	22	0.10	0.028		150	0.68	2	10/7/13 21:22	TPH
Tetrahydrofuran	1.6	0.10	0.042		4.6	0.29	2	10/7/13 21:22	TPH
Toluene	1.7	0.10	0.031		6.5	0.38	2	10/7/13 21:22	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.038		ND	0.74	2	10/7/13 21:22	TPH
1,1,1-Trichloroethane	9.5	0.10	0.018		52	0.55	2	10/7/13 21:22	TPH
1,1,2-Trichloroethane	ND	0.10	0.030		ND	0.55	2	10/7/13 21:22	TPH
Trichloroethylene	65	0.10	0.030		350	0.54	2	10/7/13 21:22	TPH
Trichlorofluoromethane (Freon 11)	180	1.0	0.35		990	5.6	20	10/4/13 22:06	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.14	0.10	0.028		1.1	0.77	2	10/7/13 21:22	TPH
1,2,4-Trimethylbenzene	0.16	0.10	0.025		0.77	0.49	2	10/7/13 21:22	TPH
1,3,5-Trimethylbenzene	0.066	0.10	0.020	J	0.32	0.49	2	10/7/13 21:22	TPH
Vinyl Acetate	ND	2.0	0.051		ND	7.0	2	10/7/13 21:22	TPH
Vinyl Chloride	ND	0.10	0.043		ND	0.26	2	10/7/13 21:22	TPH
m&p-Xylene	0.35	0.20	0.050		1.5	0.87	2	10/7/13 21:22	TPH
o-Xylene	0.17	0.10	0.029		0.73	0.43	2	10/7/13 21:22	TPH

Surrogates	% Recovery	% REC Limits	Date/Time
4-Bromofluorobenzene (1)	93.2	70-130	10/4/13 22:06
4-Bromofluorobenzene (1)	93.6	70-130	10/7/13 21:22
4-Bromofluorobenzene (2)	77.2	70-130	10/7/13 21:22

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
Field Sample #: IA-7-100313
Sample ID: 13J0133-02
 Sample Matrix: Indoor air
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1691
 Canister Size: 6 liter
 Flow Controller ID: 4202
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	19	1.4	0.47	L-05	46	3.2	0.678	10/4/13 21:27	TPH
Benzene	0.57	0.034	0.018		1.8	0.11	0.678	10/4/13 21:27	TPH
Benzyl chloride	ND	0.034	0.0066		ND	0.18	0.678	10/4/13 21:27	TPH
Bromodichloromethane	ND	0.034	0.0074		ND	0.23	0.678	10/4/13 21:27	TPH
Bromoform	ND	0.034	0.0065		ND	0.35	0.678	10/4/13 21:27	TPH
Bromomethane	ND	0.034	0.023		ND	0.13	0.678	10/4/13 21:27	TPH
1,3-Butadiene	ND	0.034	0.017		ND	0.075	0.678	10/4/13 21:27	TPH
2-Butanone (MEK)	1.3	1.4	0.025	J	3.8	4.0	0.678	10/4/13 21:27	TPH
Carbon Disulfide	0.046	0.34	0.012	J	0.14	1.1	0.678	10/4/13 21:27	TPH
Carbon Tetrachloride	0.071	0.034	0.0082		0.45	0.21	0.678	10/4/13 21:27	TPH
Chlorobenzene	ND	0.034	0.012		ND	0.16	0.678	10/4/13 21:27	TPH
Chloroethane	ND	0.034	0.013		ND	0.089	0.678	10/4/13 21:27	TPH
Chloroform	0.035	0.034	0.0079		0.17	0.17	0.678	10/4/13 21:27	TPH
Chloromethane	0.59	0.068	0.015		1.2	0.14	0.678	10/4/13 21:27	TPH
Cyclohexane	ND	0.034	0.019		ND	0.12	0.678	10/4/13 21:27	TPH
Dibromochloromethane	ND	0.034	0.0090		ND	0.29	0.678	10/4/13 21:27	TPH
1,2-Dibromoethane (EDB)	ND	0.034	0.0076		ND	0.26	0.678	10/4/13 21:27	TPH
1,2-Dichlorobenzene	ND	0.034	0.0090		ND	0.20	0.678	10/4/13 21:27	TPH
1,3-Dichlorobenzene	ND	0.034	0.0075		ND	0.20	0.678	10/4/13 21:27	TPH
1,4-Dichlorobenzene	0.014	0.034	0.0085	J	0.086	0.20	0.678	10/4/13 21:27	TPH
Dichlorodifluoromethane (Freon 12)	0.30	0.034	0.015		1.5	0.17	0.678	10/4/13 21:27	TPH
1,1-Dichloroethane	ND	0.034	0.0096		ND	0.14	0.678	10/4/13 21:27	TPH
1,2-Dichloroethane	0.027	0.034	0.0094	J	0.11	0.14	0.678	10/4/13 21:27	TPH
1,1-Dichloroethylene	ND	0.034	0.0083		ND	0.13	0.678	10/4/13 21:27	TPH
cis-1,2-Dichloroethylene	ND	0.034	0.013		ND	0.13	0.678	10/4/13 21:27	TPH
trans-1,2-Dichloroethylene	ND	0.034	0.0089		ND	0.13	0.678	10/4/13 21:27	TPH
1,2-Dichloropropane	ND	0.034	0.012		ND	0.16	0.678	10/4/13 21:27	TPH
cis-1,3-Dichloropropene	ND	0.034	0.0090		ND	0.15	0.678	10/4/13 21:27	TPH
trans-1,3-Dichloropropene	ND	0.034	0.0091		ND	0.15	0.678	10/4/13 21:27	TPH
Ethanol	21	1.4	0.61		40	2.6	0.678	10/4/13 21:27	TPH
Ethyl Acetate	0.53	0.034	0.025		1.9	0.12	0.678	10/4/13 21:27	TPH
Ethylbenzene	0.14	0.034	0.0094		0.62	0.15	0.678	10/4/13 21:27	TPH
4-Ethyltoluene	0.040	0.034	0.0077		0.20	0.17	0.678	10/4/13 21:27	TPH
Heptane	0.39	0.034	0.011		1.6	0.14	0.678	10/4/13 21:27	TPH
Hexachlorobutadiene	ND	0.034	0.013		ND	0.36	0.678	10/4/13 21:27	TPH
Hexane	0.27	1.4	0.060	J	0.97	4.8	0.678	10/4/13 21:27	TPH
2-Hexanone (MBK)	0.26	0.034	0.0087		1.1	0.14	0.678	10/4/13 21:27	TPH
Isopropanol	2.4	1.4	0.042	V-06	6.0	3.3	0.678	10/4/13 21:27	TPH

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
Field Sample #: IA-7-100313
Sample ID: 13J0133-02
 Sample Matrix: Indoor air
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1691
 Canister Size: 6 liter
 Flow Controller ID: 4202
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analized		
Methyl tert-Butyl Ether (MTBE)	ND	0.034	0.010		ND	0.12	0.678	10/4/13 21:27	TPH	
Methylene Chloride	0.31	0.34	0.041	J	1.1	1.2	0.678	10/4/13 21:27	TPH	
Methyl methacrylate	ND	0.034	0.010		ND	0.14	0.678	10/4/13 21:27	TPH	
4-Methyl-2-pentanone (MIBK)	0.11	0.034	0.0081		0.44	0.14	0.678	10/4/13 21:27	TPH	
Propene	ND	1.4	0.10		ND	2.3	0.678	10/4/13 21:27	TPH	
Styrene	0.086	0.034	0.0066		0.37	0.14	0.678	10/4/13 21:27	TPH	
1,1,1,2-Tetrachloroethane	ND	0.062	0.022		ND	0.42	0.678	10/4/13 21:27	TPH	
1,1,2,2-Tetrachloroethane	ND	0.034	0.0081		ND	0.23	0.678	10/4/13 21:27	TPH	
Tetrachloroethylene	0.033	0.034	0.0096	J	0.22	0.23	0.678	10/4/13 21:27	TPH	
Tetrahydrofuran	0.052	0.034	0.014		0.15	0.100	0.678	10/4/13 21:27	TPH	
Toluene	2.1	0.034	0.011		7.8	0.13	0.678	10/4/13 21:27	TPH	
1,2,4-Trichlorobenzene	ND	0.034	0.013		ND	0.25	0.678	10/4/13 21:27	TPH	
1,1,1-Trichloroethane	ND	0.034	0.0061		ND	0.18	0.678	10/4/13 21:27	TPH	
1,1,2-Trichloroethane	ND	0.034	0.010		ND	0.18	0.678	10/4/13 21:27	TPH	
Trichloroethylene	0.026	0.034	0.010	J	0.14	0.18	0.678	10/4/13 21:27	TPH	
Trichlorofluoromethane (Freon 11)	0.34	0.034	0.012		1.9	0.19	0.678	10/4/13 21:27	TPH	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.068	0.034	0.0095		0.52	0.26	0.678	10/4/13 21:27	TPH	
1,2,4-Trimethylbenzene	0.14	0.034	0.0083		0.70	0.17	0.678	10/4/13 21:27	TPH	
1,3,5-Trimethylbenzene	0.047	0.034	0.0068		0.23	0.17	0.678	10/4/13 21:27	TPH	
Vinyl Acetate	ND	0.68	0.017	L-03	ND	2.4	0.678	10/4/13 21:27	TPH	
Vinyl Chloride	ND	0.034	0.015		ND	0.087	0.678	10/4/13 21:27	TPH	
m&p-Xylene	0.41	0.068	0.017		1.8	0.29	0.678	10/4/13 21:27	TPH	
o-Xylene	0.20	0.034	0.0098		0.85	0.15	0.678	10/4/13 21:27	TPH	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.4	70-130	10/4/13 21:27
4-Bromofluorobenzene (2)	85.3	70-130	10/4/13 21:27

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
Field Sample #: AA-1-100313
Sample ID: 13J0133-03
 Sample Matrix: Ambient Air
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1732
 Canister Size: 6 liter
 Flow Controller ID: 4021
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -5.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	5.0	1.4	0.47	L-05	12	3.2	0.678	10/4/13 20:41	TPH
Benzene	0.30	0.034	0.018		0.95	0.11	0.678	10/4/13 20:41	TPH
Benzyl chloride	ND	0.034	0.0066		ND	0.18	0.678	10/4/13 20:41	TPH
Bromodichloromethane	ND	0.034	0.0074		ND	0.23	0.678	10/4/13 20:41	TPH
Bromoform	ND	0.034	0.0065		ND	0.35	0.678	10/4/13 20:41	TPH
Bromomethane	ND	0.034	0.023		ND	0.13	0.678	10/4/13 20:41	TPH
1,3-Butadiene	ND	0.034	0.017		ND	0.075	0.678	10/4/13 20:41	TPH
2-Butanone (MEK)	0.32	1.4	0.025	J	0.94	4.0	0.678	10/4/13 20:41	TPH
Carbon Disulfide	ND	0.34	0.012		ND	1.1	0.678	10/4/13 20:41	TPH
Carbon Tetrachloride	0.068	0.034	0.0082		0.43	0.21	0.678	10/4/13 20:41	TPH
Chlorobenzene	ND	0.034	0.012		ND	0.16	0.678	10/4/13 20:41	TPH
Chloroethane	ND	0.034	0.013		ND	0.089	0.678	10/4/13 20:41	TPH
Chloroform	0.021	0.034	0.0079	J	0.10	0.17	0.678	10/4/13 20:41	TPH
Chloromethane	0.47	0.068	0.015		0.96	0.14	0.678	10/4/13 20:41	TPH
Cyclohexane	ND	0.034	0.019		ND	0.12	0.678	10/4/13 20:41	TPH
Dibromochloromethane	ND	0.034	0.0090		ND	0.29	0.678	10/4/13 20:41	TPH
1,2-Dibromoethane (EDB)	ND	0.034	0.0076		ND	0.26	0.678	10/4/13 20:41	TPH
1,2-Dichlorobenzene	ND	0.034	0.0090		ND	0.20	0.678	10/4/13 20:41	TPH
1,3-Dichlorobenzene	ND	0.034	0.0075		ND	0.20	0.678	10/4/13 20:41	TPH
1,4-Dichlorobenzene	ND	0.034	0.0085		ND	0.20	0.678	10/4/13 20:41	TPH
Dichlorodifluoromethane (Freon 12)	0.35	0.034	0.015		1.7	0.17	0.678	10/4/13 20:41	TPH
1,1-Dichloroethane	ND	0.034	0.0096		ND	0.14	0.678	10/4/13 20:41	TPH
1,2-Dichloroethane	ND	0.034	0.0094		ND	0.14	0.678	10/4/13 20:41	TPH
1,1-Dichloroethylene	ND	0.034	0.0083		ND	0.13	0.678	10/4/13 20:41	TPH
cis-1,2-Dichloroethylene	ND	0.034	0.013		ND	0.13	0.678	10/4/13 20:41	TPH
trans-1,2-Dichloroethylene	ND	0.034	0.0089		ND	0.13	0.678	10/4/13 20:41	TPH
1,2-Dichloropropane	ND	0.034	0.012		ND	0.16	0.678	10/4/13 20:41	TPH
cis-1,3-Dichloropropene	ND	0.034	0.0090		ND	0.15	0.678	10/4/13 20:41	TPH
trans-1,3-Dichloropropene	ND	0.034	0.0091		ND	0.15	0.678	10/4/13 20:41	TPH
Ethanol	3.6	1.4	0.61		6.7	2.6	0.678	10/4/13 20:41	TPH
Ethyl Acetate	ND	0.034	0.025		ND	0.12	0.678	10/4/13 20:41	TPH
Ethylbenzene	0.047	0.034	0.0094		0.21	0.15	0.678	10/4/13 20:41	TPH
4-Ethyltoluene	0.013	0.034	0.0077	J	0.063	0.17	0.678	10/4/13 20:41	TPH
Heptane	0.043	0.034	0.011		0.18	0.14	0.678	10/4/13 20:41	TPH
Hexachlorobutadiene	ND	0.034	0.013		ND	0.36	0.678	10/4/13 20:41	TPH
Hexane	0.23	1.4	0.060	J	0.81	4.8	0.678	10/4/13 20:41	TPH
2-Hexanone (MBK)	ND	0.034	0.0087		ND	0.14	0.678	10/4/13 20:41	TPH
Isopropanol	ND	1.4	0.042		ND	3.3	0.678	10/4/13 20:41	TPH

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 10/3/2013
 Field Sample #: AA-1-100313
 Sample ID: 13J0133-03
 Sample Matrix: Ambient Air
 Sampled: 10/3/2013 00:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1732
 Canister Size: 6 liter
 Flow Controller ID: 4021
 Sample Type: 30 min

Work Order: 13J0133
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -5.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
		RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.034	0.010		ND	0.12	0.678	10/4/13 20:41	TPH
Methylene Chloride	0.29	0.34	0.041	J	1.00	1.2	0.678	10/4/13 20:41	TPH
Methyl methacrylate	ND	0.034	0.010		ND	0.14	0.678	10/4/13 20:41	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.034	0.0081		ND	0.14	0.678	10/4/13 20:41	TPH
Propene	ND	1.4	0.10		ND	2.3	0.678	10/4/13 20:41	TPH
Styrene	0.012	0.034	0.0066	J	0.052	0.14	0.678	10/4/13 20:41	TPH
1,1,1,2-Tetrachloroethane	ND	0.062	0.022		ND	0.42	0.678	10/4/13 20:41	TPH
1,1,2,2-Tetrachloroethane	ND	0.034	0.0081		ND	0.23	0.678	10/4/13 20:41	TPH
Tetrachloroethylene	0.044	0.034	0.0096		0.30	0.23	0.678	10/4/13 20:41	TPH
Tetrahydrofuran	ND	0.034	0.014		ND	0.100	0.678	10/4/13 20:41	TPH
Toluene	0.35	0.034	0.011		1.3	0.13	0.678	10/4/13 20:41	TPH
1,2,4-Trichlorobenzene	ND	0.034	0.013		ND	0.25	0.678	10/4/13 20:41	TPH
1,1,1-Trichloroethane	ND	0.034	0.0061		ND	0.18	0.678	10/4/13 20:41	TPH
1,1,2-Trichloroethane	ND	0.034	0.010		ND	0.18	0.678	10/4/13 20:41	TPH
Trichloroethylene	0.020	0.034	0.010	J	0.11	0.18	0.678	10/4/13 20:41	TPH
Trichlorofluoromethane (Freon 11)	0.59	0.034	0.012		3.3	0.19	0.678	10/4/13 20:41	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.072	0.034	0.0095		0.55	0.26	0.678	10/4/13 20:41	TPH
1,2,4-Trimethylbenzene	0.038	0.034	0.0083		0.19	0.17	0.678	10/4/13 20:41	TPH
1,3,5-Trimethylbenzene	0.0095	0.034	0.0068	J	0.047	0.17	0.678	10/4/13 20:41	TPH
Vinyl Acetate	ND	0.68	0.017	L-03	ND	2.4	0.678	10/4/13 20:41	TPH
Vinyl Chloride	ND	0.034	0.015		ND	0.087	0.678	10/4/13 20:41	TPH
m&p-Xylene	0.12	0.068	0.017		0.53	0.29	0.678	10/4/13 20:41	TPH
o-Xylene	0.055	0.034	0.0098		0.24	0.15	0.678	10/4/13 20:41	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.2	70-130	10/4/13 20:41
4-Bromofluorobenzene (2)	87.3	70-130	10/4/13 20:41

Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13J0133-01RE1 [EW-7-100313]	B082494	1.5	1	N/A	1000	400	30	10/04/13
13J0133-02 [IA-7-100313]	B082494	1.5	1	N/A	1000	400	885	10/04/13
13J0133-03 [AA-1-100313]	B082494	1.5	1	N/A	1000	400	885	10/04/13

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13J0133-01 [EW-7-100313]	B082497	1.5	1	N/A	1000	400	300	10/07/13

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	

Batch B082494 - TO-15 Prep

Blank (B082494-BLK1)

Prepared & Analyzed: 10/04/13

Acetone	ND	0.80								
Benzene	ND	0.020								
Benzyl chloride	ND	0.020								
Bromodichloromethane	ND	0.020								
Bromoform	ND	0.020								
Bromomethane	ND	0.020								
1,3-Butadiene	ND	0.020								
2-Butanone (MEK)	ND	0.80								
Carbon Disulfide	ND	0.20								
Carbon Tetrachloride	ND	0.020								
Chlorobenzene	ND	0.020								
Chloroethane	ND	0.020								
Chloroform	ND	0.020								
Chloromethane	ND	0.040								
Cyclohexane	ND	0.020								
Dibromochloromethane	ND	0.020								
1,2-Dibromoethane (EDB)	ND	0.020								
1,2-Dichlorobenzene	ND	0.020								
1,3-Dichlorobenzene	ND	0.020								
1,4-Dichlorobenzene	ND	0.020								
Dichlorodifluoromethane (Freon 12)	ND	0.020								
1,1-Dichloroethane	ND	0.020								
1,2-Dichloroethane	ND	0.020								
1,1-Dichloroethylene	ND	0.020								
cis-1,2-Dichloroethylene	ND	0.020								
trans-1,2-Dichloroethylene	ND	0.020								
1,2-Dichloropropane	ND	0.020								
cis-1,3-Dichloropropene	ND	0.020								
trans-1,3-Dichloropropene	ND	0.020								
Ethanol	ND	0.80								
Ethyl Acetate	ND	0.020								
Ethylbenzene	ND	0.020								
4-Ethyltoluene	ND	0.020								
Heptane	ND	0.020								
Hexachlorobutadiene	ND	0.020								
Hexane	ND	0.80								
2-Hexanone (MBK)	ND	0.020								
Isopropanol	ND	0.80								
Methyl tert-Butyl Ether (MTBE)	ND	0.020								
Methylene Chloride	0.045	0.20								J
Methyl methacrylate	ND	0.050								
4-Methyl-2-pentanone (MIBK)	ND	0.020								
Propene	0.067	0.80								J
Styrene	ND	0.020								
1,1,1,2-Tetrachloroethane	ND	0.036								
1,1,2,2-Tetrachloroethane	ND	0.020								

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B082494 - TO-15 Prep

Blank (B082494-BLK1)

Prepared & Analyzed: 10/04/13

Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.020									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.020									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.020									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									L-03
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
<hr/>											
Surrogate: 4-Bromofluorobenzene (1)	7.10				8.00		88.8	70-130			
Surrogate: 4-Bromofluorobenzene (2)	6.01				8.00		75.2	70-130			

LCS (B082494-BS1)

Prepared & Analyzed: 10/04/13

Acetone	6.53				5.00		131 *	70-130			L-05
Benzene	4.64				5.00		92.8	70-130			
Benzyl chloride	5.64				5.00		113	70-130			
Bromodichloromethane	5.58				5.00		112	70-130			
Bromoform	5.36				5.00		107	70-130			
Bromomethane	4.12				5.00		82.5	70-130			
1,3-Butadiene	5.08				5.00		102	70-130			
2-Butanone (MEK)	4.44				5.00		88.7	70-130			
Carbon Disulfide	4.60				5.00		92.0	70-130			
Carbon Tetrachloride	5.06				5.00		101	70-130			
Chlorobenzene	5.29				5.00		106	70-130			
Chloroethane	5.25				5.00		105	70-130			
Chloroform	4.34				5.00		86.7	70-130			
Chloromethane	5.08				5.00		102	70-130			
Cyclohexane	4.89				5.00		97.8	70-130			
Dibromochloromethane	5.15				5.00		103	70-130			
1,2-Dibromoethane (EDB)	5.21				5.00		104	70-130			
1,2-Dichlorobenzene	5.98				5.00		120	70-130			
1,3-Dichlorobenzene	5.96				5.00		119	70-130			
1,4-Dichlorobenzene	5.79				5.00		116	70-130			
Dichlorodifluoromethane (Freon 12)	4.61				5.00		92.3	70-130			
1,1-Dichloroethane	4.55				5.00		91.1	70-130			
1,2-Dichloroethane	4.64				5.00		92.7	70-130			
1,1-Dichloroethylene	4.32				5.00		86.4	70-130			
cis-1,2-Dichloroethylene	4.74				5.00		94.9	70-130			
trans-1,2-Dichloroethylene	4.53				5.00		90.5	70-130			
1,2-Dichloropropane	5.52				5.00		110	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B082494 - TO-15 Prep											
LCS (B082494-BS1)					Prepared & Analyzed: 10/04/13						
cis-1,3-Dichloropropene	5.42				5.00		108	70-130			
trans-1,3-Dichloropropene	5.82				5.00		116	70-130			
Ethanol	3.90				5.00		78.1	70-130			
Ethyl Acetate	5.41				5.00		108	70-130			
Ethylbenzene	5.36				5.00		107	70-130			
4-Ethyltoluene	5.39				5.00		108	70-130			
Heptane	5.40				5.00		108	70-130			
Hexachlorobutadiene	5.89				5.00		118	70-130			
Hexane	4.82				5.00		96.3	70-130			
2-Hexanone (MBK)	4.59				5.00		91.8	70-130			
Isopropanol	6.04				5.00		121	70-130			V-06
Methyl tert-Butyl Ether (MTBE)	4.30				5.00		86.0	70-130			
Methylene Chloride	4.45				5.00		89.0	70-130			
Methyl methacrylate	5.22				5.00		104	70-130			
4-Methyl-2-pentanone (MIBK)	5.22				5.00		104	70-130			
Propene	5.77				5.00		115	70-130			
Styrene	5.72				5.00		114	70-130			
1,1,1,2-Tetrachloroethane	0.675				0.910		74.2	70-130			
1,1,2,2-Tetrachloroethane	6.13				5.00		123	70-130			
Tetrachloroethylene	5.28				5.00		106	70-130			
Tetrahydrofuran	4.58				5.00		91.6	70-130			
Toluene	5.23				5.00		105	70-130			
1,2,4-Trichlorobenzene	5.11				5.00		102	70-130			
1,1,1-Trichloroethane	4.93				5.00		98.7	70-130			
1,1,2-Trichloroethane	5.54				5.00		111	70-130			
Trichloroethylene	5.03				5.00		101	70-130			
Trichlorofluoromethane (Freon 11)	4.15				5.00		82.9	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	3.95				5.00		79.0	70-130			
1,2,4-Trimethylbenzene	5.76				5.00		115	70-130			
1,3,5-Trimethylbenzene	5.64				5.00		113	70-130			
Vinyl Acetate	3.49				5.00		69.8 *	70-130			L-03
Vinyl Chloride	4.98				5.00		99.7	70-130			
m&p-Xylene	11.1				10.0		111	70-130			
o-Xylene	5.63				5.00		113	70-130			
Surrogate: 4-Bromofluorobenzene (1)	7.82				8.00		97.8	70-130			
Surrogate: 4-Bromofluorobenzene (2)	6.56				8.00		82.1	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	RPD Limit	Flag
	Results	RL	Results	RL	ppbv	Result	%REC Limits	RPD		

Batch B082497 - TO-15 Prep

Blank (B082497-BLK1)

Prepared & Analyzed: 10/07/13

Acetone	ND	0.80								
Benzene	ND	0.020								
Benzyl chloride	ND	0.020								
Bromodichloromethane	ND	0.020								
Bromoform	ND	0.020								
Bromomethane	ND	0.020								
1,3-Butadiene	ND	0.020								
2-Butanone (MEK)	ND	0.80								
Carbon Disulfide	ND	0.20								
Carbon Tetrachloride	ND	0.020								
Chlorobenzene	ND	0.020								
Chloroethane	ND	0.020								
Chloroform	ND	0.020								
Chloromethane	ND	0.040								
Cyclohexane	ND	0.020								
Dibromochloromethane	ND	0.020								
1,2-Dibromoethane (EDB)	ND	0.020								
1,2-Dichlorobenzene	ND	0.020								
1,3-Dichlorobenzene	ND	0.020								
1,4-Dichlorobenzene	ND	0.020								
Dichlorodifluoromethane (Freon 12)	ND	0.020								
1,1-Dichloroethane	ND	0.020								
1,2-Dichloroethane	ND	0.020								
1,1-Dichloroethylene	ND	0.020								
cis-1,2-Dichloroethylene	ND	0.020								
trans-1,2-Dichloroethylene	ND	0.020								
1,2-Dichloropropane	ND	0.020								
cis-1,3-Dichloropropene	ND	0.020								
trans-1,3-Dichloropropene	ND	0.020								
Ethanol	ND	0.80								
Ethyl Acetate	ND	0.020								
Ethylbenzene	ND	0.020								
4-Ethyltoluene	ND	0.020								
Heptane	ND	0.020								
Hexachlorobutadiene	ND	0.020								
Hexane	ND	0.80								
2-Hexanone (MBK)	ND	0.020								
Isopropanol	ND	0.80								
Methyl tert-Butyl Ether (MTBE)	ND	0.020								
Methylene Chloride	0.044	0.20								J
Methyl methacrylate	ND	0.020								
4-Methyl-2-pentanone (MIBK)	ND	0.020								
Propene	0.088	0.80								J
Styrene	ND	0.020								
1,1,1,2-Tetrachloroethane	ND	0.036								
1,1,2,2-Tetrachloroethane	ND	0.020								

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B082497 - TO-15 Prep

Blank (B082497-BLK1)

Prepared & Analyzed: 10/07/13

Tetrachloroethylene	ND	0.020
Tetrahydrofuran	ND	0.020
Toluene	ND	0.020
1,2,4-Trichlorobenzene	ND	0.020
1,1,1-Trichloroethane	ND	0.020
1,1,2-Trichloroethane	ND	0.020
Trichloroethylene	ND	0.020
Trichlorofluoromethane (Freon 11)	ND	0.020
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.020
1,2,4-Trimethylbenzene	ND	0.020
1,3,5-Trimethylbenzene	ND	0.020
Vinyl Acetate	ND	0.40
Vinyl Chloride	ND	0.020
m&p-Xylene	ND	0.040
o-Xylene	ND	0.020

<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.41</i>		<i>8.00</i>		<i>92.6</i>	<i>70-130</i>
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>6.50</i>		<i>8.00</i>		<i>81.2</i>	<i>70-130</i>

LCS (B082497-BS1)

Prepared & Analyzed: 10/07/13

Acetone	6.86		5.00		137 *	70-130	L-05, V-06
Benzene	4.60		5.00		92.1	70-130	
Benzyl chloride	5.49		5.00		110	70-130	
Bromodichloromethane	5.48		5.00		110	70-130	
Bromoform	5.52		5.00		110	70-130	
Bromomethane	4.45		5.00		89.1	70-130	
1,3-Butadiene	5.04		5.00		101	70-130	
2-Butanone (MEK)	4.59		5.00		91.8	70-130	
Carbon Disulfide	5.07		5.00		101	70-130	
Carbon Tetrachloride	5.14		5.00		103	70-130	
Chlorobenzene	5.42		5.00		108	70-130	
Chloroethane	5.36		5.00		107	70-130	
Chloroform	4.83		5.00		96.6	70-130	
Chloromethane	4.99		5.00		99.8	70-130	
Cyclohexane	4.94		5.00		98.7	70-130	
Dibromochloromethane	5.36		5.00		107	70-130	
1,2-Dibromoethane (EDB)	5.32		5.00		106	70-130	
1,2-Dichlorobenzene	5.97		5.00		119	70-130	
1,3-Dichlorobenzene	5.92		5.00		118	70-130	
1,4-Dichlorobenzene	5.80		5.00		116	70-130	
Dichlorodifluoromethane (Freon 12)	4.95		5.00		99.0	70-130	
1,1-Dichloroethane	4.87		5.00		97.4	70-130	
1,2-Dichloroethane	4.95		5.00		99.0	70-130	
1,1-Dichloroethylene	4.65		5.00		93.1	70-130	
cis-1,2-Dichloroethylene	5.06		5.00		101	70-130	
trans-1,2-Dichloroethylene	4.85		5.00		97.0	70-130	
1,2-Dichloropropane	5.27		5.00		105	70-130	

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B082497 - TO-15 Prep											
LCS (B082497-BS1)					Prepared & Analyzed: 10/07/13						
cis-1,3-Dichloropropene	5.32				5.00		106	70-130			
trans-1,3-Dichloropropene	5.58				5.00		112	70-130			
Ethanol	4.39				5.00		87.8	70-130			
Ethyl Acetate	5.93				5.00		119	70-130			
Ethylbenzene	5.33				5.00		107	70-130			
4-Ethyltoluene	5.32				5.00		106	70-130			
Heptane	5.08				5.00		102	70-130			
Hexachlorobutadiene	5.95				5.00		119	70-130			
Hexane	4.92				5.00		98.3	70-130			
2-Hexanone (MBK)	4.16				5.00		83.2	70-130			
Isopropanol	6.26				5.00		125	70-130			V-06
Methyl tert-Butyl Ether (MTBE)	4.78				5.00		95.5	70-130			
Methylene Chloride	4.65				5.00		92.9	70-130			
Methyl methacrylate	5.04				5.00		101	70-130			
4-Methyl-2-pentanone (MIBK)	4.67				5.00		93.4	70-130			
Propene	5.89				5.00		118	70-130			
Styrene	5.62				5.00		112	70-130			
1,1,1,2-Tetrachloroethane	0.711	0.091		0.62				70-130			
1,1,2,2-Tetrachloroethane	5.89				5.00		118	70-130			
Tetrachloroethylene	5.58				5.00		112	70-130			
Tetrahydrofuran	5.01				5.00		100	70-130			
Toluene	5.34				5.00		107	70-130			
1,2,4-Trichlorobenzene	5.24				5.00		105	70-130			
1,1,1-Trichloroethane	5.03				5.00		101	70-130			
1,1,2-Trichloroethane	5.64				5.00		113	70-130			
Trichloroethylene	5.13				5.00		103	70-130			
Trichlorofluoromethane (Freon 11)	4.73				5.00		94.6	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.52				5.00		90.5	70-130			
1,2,4-Trimethylbenzene	5.67				5.00		113	70-130			
1,3,5-Trimethylbenzene	5.50				5.00		110	70-130			
Vinyl Acetate	3.59				5.00		71.9	70-130			
Vinyl Chloride	5.02				5.00		100	70-130			
m&p-Xylene	10.9				10.0		109	70-130			
o-Xylene	5.52				5.00		110	70-130			
Surrogate: 4-Bromofluorobenzene (1)	7.76				8.00		97.0	70-130			
Surrogate: 4-Bromofluorobenzene (2)	6.64				8.00		83.0	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.
- J Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
 - L-03 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
 - L-05 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
 - V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Acetone	AIHA
Benzene	AIHA,FL,NJ,NY,VA
Benzyl chloride	AIHA,FL,NJ,NY,VA
Bromodichloromethane	AIHA,NJ,VA
Bromoform	AIHA,NJ,VA
Bromomethane	AIHA,FL,NJ,NY
1,3-Butadiene	AIHA,NJ,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA
Carbon Disulfide	AIHA,NJ,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA
Chlorobenzene	AIHA,FL,NJ,NY,VA
Chloroethane	AIHA,FL,NJ,NY,VA
Chloroform	AIHA,FL,NJ,NY,VA
Chloromethane	AIHA,FL,NJ,NY,VA
Cyclohexane	AIHA,NJ,VA
Dibromochloromethane	AIHA,NY
1,2-Dibromoethane (EDB)	AIHA,NJ,NY
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA
1,3-Dichlorobenzene	AIHA,NJ,NY
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA
trans-1,3-Dichloropropene	AIHA,NY
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA
Hexachlorobutadiene	AIHA,NJ,NY,VA
Hexane	AIHA,FL,NJ,NY,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA
Methylene Chloride	AIHA,FL,NJ,NY,VA
Methyl methacrylate	AIHA,NJ,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA
Tetrachloroethylene	AIHA,FL,NJ,NY,VA
Tetrahydrofuran	AIHA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Toluene	AIHA,FL,NJ,NY,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA
Trichloroethylene	AIHA,FL,NJ,NY,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY
1,3,5-Trimethylbenzene	AIHA,NJ,NY
Vinyl Acetate	AIHA,FL,NJ,NY,VA
Vinyl Chloride	AIHA,FL,NJ,NY,VA
m&p-Xylene	AIHA,FL,NJ,NY,VA
o-Xylene	AIHA,FL,NJ,NY,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2013
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Company Name: AmeC

Address: 2707 Audubon Rd Suite 301

Wetfield, MA 01986

Attention: Kelly Charleston

Project Location: Providence, RI

Sampled By: Mark Maguire

Proposal Provided? (For Billing purposes)

yes no

proposal date

Telephone: (781) 215-6600

Project # 3650020111

Client PO # CG1220337C

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT

Fax #: _____

Email: Kelly.Christon@AmeC.com

Format: EXCEL PDF GIS KEY OTHER

ONLY USE WHEN USING PUMPS

Field ID	Sample Description	Media Lab #	Date Time	Stop Date Time	Total Minutes Sampled	Flow Rate M ³ /Min. or L/Min.	Volume Liters or M ³	Matrix Code*	ANALYSIS REQUESTED		Summa Canister ID	Flow Contr ID
									" Hg	PLEASE FILL OUT COMPLETELY, SIGN, DATE AND RETAIN THE YELLOW COPY FOR YOUR RECORD		
EW-7-100313	SG SA	10-3-13	10-3-13	30	0.2	6	SG	X		1078	403	
IA-7-100313	IA SA	10-3-13	10-3-13	30	0.2	6	IA	X		1691	412	
AA-1-100313	AMB SA	10-3-13	10-3-13	30	0.2	6	AMB	X		51732	403	

Laboratory Comments:

5 day TAT Note New PC

CLIENT COMMENTS:

5 day TAT note New PC

Turnaround **

7-Day

10-Day

Other 5

RUSH * day

*24-Hr *48-Hr

*72-Hr *4-Day

*Approval Required

Special Requirements

Regulations: CT Target + Indust. 1

Data Enhancement/RCP? Y N

Enhanced Data Package Y N

(Surcharge Applies)

Required Detection Limits: CT Target 1

Other: Comments

*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

** 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, NELAP & WBE/DBE Certified

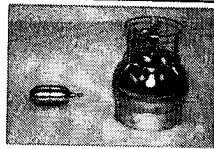
Log-In Sample Receipt Checklist
(Rejection Criteria Listing - Using Sample Acceptance Policy)
Any False statement will be brought to the attention of Client

<u>Question</u>	<u>Answer (True/False)</u>		<u>Comment</u>
	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.	NA		
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) 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		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA		
21) Samples do not require splitting or compositing.	T		

Doc #278 Rev. 3 August 2013

 Who notified of False statements?
 Log-In Technician Initials: **PR**

 Date/Time:
 Date/Time: **10-3-13**
16.30



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Page 1 of 2

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

AIR Only Receipt Checklist

CLIENT NAME: AMEC RECEIVED BY: PB DATE: 10.3.13

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

6) Location where samples are stored: Air Lab

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

7) Temperature °C by Temp blank _____ Temperature °C by Temp gun _____

Containers received at Con-Test

	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	<u>3</u>	<u>6 lit</u>
Tedlar Bags		
TO-17 Tubes		
Regulators	<u>3</u>	<u>30 min</u>
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: 1078 4202
1691 4038
1732 4201

September 13, 2013

Lisa Drabinowicz
AMEC E&I, Inc.
2 Robbins Road
Westford, MA 01886

Project Location: Providence RI
Client Job Number:
Project Number: 3650080114
Laboratory Work Order Number: 13I0181

Enclosed are results of analyses for samples received by the laboratory on September 6, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "James M. Georgantas". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

James M. Georgantas
Project Manager

AMEC E&I, Inc.
 2 Robbins Road
 Westford, MA 01886
 ATTN: Lisa Drabinowicz

REPORT DATE: 9/13/2013

PURCHASE ORDER NUMBER: C012600149

PROJECT NUMBER: 3650080114

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 1310181

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

PROJECT LOCATION: Providence RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-090613	1310181-01	Indoor air		EPA TO-15	
IA-2-090613	1310181-02	Indoor air		EPA TO-15	
IA-3-090613	1310181-03	Indoor air		EPA TO-15	
IA-4-090613	1310181-04	Indoor air		EPA TO-15	
IA-5-090613	1310181-05	Indoor air		EPA TO-15	
IA-6-090613	1310181-06	Indoor air		EPA TO-15	
IA-7-090613	1310181-07	Indoor air		EPA TO-15	
AA-1-090613	1310181-08	Ambient Air		EPA TO-15	
EW-5-090613	1310181-09	Sub Slab		EPA TO-15	
EW-6-090613	1310181-10	Sub Slab		EPA TO-15	
EW-7-090613	1310181-11	Sub Slab		EPA TO-15	
EW-Combined-090613	1310181-12	Sub Slab		EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

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:

Vinyl Acetate

B080750-BS1

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

Analyte & Samples(s) Qualified:

Ethanol

1310181-01[IA-1-090613], 1310181-02[IA-2-090613], 1310181-03[IA-3-090613], 1310181-04RE1[IA-4-090613], 1310181-05[IA-5-090613], 1310181-06[IA-6-090613], 1310181-07[IA-7-090613], 1310181-08[AA-1-090613], 1310181-10[EW-6-090613], 1310181-11[EW-7-090613], 1310181-12[EW-Combined-090613], B080750-BS1, B080751-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.



Daren J. Damboragian
Laboratory Manager

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-1-090613
Sample ID: 1310181-01
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 12:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1083
 Canister Size: 6 liter
 Flow Controller ID: 4186
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -27
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Acetone	15	1.4	0.49		35	3.3	0.702	9/10/13 17:55	WSD
Benzene	0.24	0.035	0.018		0.75	0.11	0.702	9/10/13 17:55	WSD
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 17:55	WSD
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 17:55	WSD
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 17:55	WSD
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 17:55	WSD
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 17:55	WSD
2-Butanone (MEK)	0.68	1.4	0.026	J	2.0	4.1	0.702	9/10/13 17:55	WSD
Carbon Disulfide	0.075	0.35	0.012	J	0.23	1.1	0.702	9/10/13 17:55	WSD
Carbon Tetrachloride	0.085	0.035	0.0085		0.53	0.22	0.702	9/10/13 17:55	WSD
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 17:55	WSD
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 17:55	WSD
Chloroform	0.041	0.035	0.0082		0.20	0.17	0.702	9/10/13 17:55	WSD
Chloromethane	0.57	0.070	0.015		1.2	0.14	0.702	9/10/13 17:55	WSD
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 17:55	WSD
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 17:55	WSD
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 17:55	WSD
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 17:55	WSD
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 17:55	WSD
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 17:55	WSD
Dichlorodifluoromethane (Freon 12)	0.38	0.035	0.015		1.9	0.17	0.702	9/10/13 17:55	WSD
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 17:55	WSD
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 17:55	WSD
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 17:55	WSD
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	9/10/13 17:55	WSD
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 17:55	WSD
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 17:55	WSD
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 17:55	WSD
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 17:55	WSD
Ethanol	12	1.4	0.63	L-03	23	2.6	0.702	9/10/13 17:55	WSD
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	9/10/13 17:55	WSD
Ethylbenzene	0.081	0.035	0.0097		0.35	0.15	0.702	9/10/13 17:55	WSD
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 17:55	WSD
Heptane	0.20	0.035	0.011		0.81	0.14	0.702	9/10/13 17:55	WSD
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 17:55	WSD
Hexane	5.3	1.4	0.062		19	4.9	0.702	9/10/13 17:55	WSD
2-Hexanone (MBK)	0.065	0.035	0.0090		0.27	0.14	0.702	9/10/13 17:55	WSD
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 17:55	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-1-090613
Sample ID: 1310181-01
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 12:00

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1083
 Canister Size: 6 liter
 Flow Controller ID: 4186
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -27
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 17:55	WSD
Methylene Chloride	9.7	0.35	0.043		34	1.2	0.702	9/10/13 17:55	WSD
Methyl methacrylate	0.036	0.035	0.011		0.15	0.14	0.702	9/10/13 17:55	WSD
4-Methyl-2-pentanone (MIBK)	0.13	0.035	0.0084		0.52	0.14	0.702	9/10/13 17:55	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 17:55	WSD
Styrene	0.064	0.035	0.0068		0.27	0.15	0.702	9/10/13 17:55	WSD
1,1,1,2-Tetrachloroethane	0.051	0.064	0.023	J	0.35	0.44	0.702	9/10/13 17:55	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 17:55	WSD
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	9/10/13 17:55	WSD
Tetrahydrofuran	0.092	0.035	0.015		0.27	0.10	0.702	9/10/13 17:55	WSD
Toluene	1.1	0.035	0.011		4.2	0.13	0.702	9/10/13 17:55	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 17:55	WSD
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 17:55	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 17:55	WSD
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 17:55	WSD
Trichlorofluoromethane (Freon 11)	0.43	0.035	0.012		2.4	0.20	0.702	9/10/13 17:55	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.082	0.035	0.0098		0.63	0.27	0.702	9/10/13 17:55	WSD
1,2,4-Trimethylbenzene	0.065	0.035	0.0086		0.32	0.17	0.702	9/10/13 17:55	WSD
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 17:55	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 17:55	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 17:55	WSD
m&p-Xylene	0.24	0.070	0.018		1.0	0.30	0.702	9/10/13 17:55	WSD
o-Xylene	0.098	0.035	0.010		0.42	0.15	0.702	9/10/13 17:55	WSD

Surrogates	% Recovery	% REC Limits	Date/Time Analyzed
4-Bromofluorobenzene (1)	96.4	70-130	9/10/13 17:55
4-Bromofluorobenzene (2)	92.2	70-130	9/10/13 17:55

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-2-090613
Sample ID: 1310181-02
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:01

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1038
 Canister Size: 6 liter
 Flow Controller ID: 4176
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Date/Time		Analyst
	Results	RL	MDL		Results	RL	Dilution	Analyzed	
Acetone	9.1	1.4	0.49		22	3.3	0.702	9/10/13 18:37	WSD
Benzene	0.10	0.035	0.018		0.32	0.11	0.702	9/10/13 18:37	WSD
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 18:37	WSD
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 18:37	WSD
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 18:37	WSD
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 18:37	WSD
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 18:37	WSD
2-Butanone (MEK)	0.73	1.4	0.026	J	2.1	4.1	0.702	9/10/13 18:37	WSD
Carbon Disulfide	0.11	0.35	0.012	J	0.33	1.1	0.702	9/10/13 18:37	WSD
Carbon Tetrachloride	0.071	0.035	0.0085		0.45	0.22	0.702	9/10/13 18:37	WSD
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 18:37	WSD
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 18:37	WSD
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	9/10/13 18:37	WSD
Chloromethane	0.47	0.070	0.015		0.98	0.14	0.702	9/10/13 18:37	WSD
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 18:37	WSD
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 18:37	WSD
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 18:37	WSD
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 18:37	WSD
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 18:37	WSD
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 18:37	WSD
Dichlorodifluoromethane (Freon 12)	0.37	0.035	0.015		1.8	0.17	0.702	9/10/13 18:37	WSD
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 18:37	WSD
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 18:37	WSD
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 18:37	WSD
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	9/10/13 18:37	WSD
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 18:37	WSD
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 18:37	WSD
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 18:37	WSD
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 18:37	WSD
Ethanol	24	1.4	0.63	L-03	46	2.6	0.702	9/10/13 18:37	WSD
Ethyl Acetate	0.077	0.035	0.026		0.28	0.13	0.702	9/10/13 18:37	WSD
Ethylbenzene	0.039	0.035	0.0097		0.17	0.15	0.702	9/10/13 18:37	WSD
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 18:37	WSD
Heptane	0.050	0.035	0.011		0.20	0.14	0.702	9/10/13 18:37	WSD
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 18:37	WSD
Hexane	0.18	1.4	0.062	J	0.65	4.9	0.702	9/10/13 18:37	WSD
2-Hexanone (MBK)	0.099	0.035	0.0090		0.41	0.14	0.702	9/10/13 18:37	WSD
Isopropanol	0.68	1.4	0.043	J	1.7	3.4	0.702	9/10/13 18:37	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-2-090613
Sample ID: 1310181-02
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:01

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1038
 Canister Size: 6 liter
 Flow Controller ID: 4176
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analyzed		
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 18:37	WSD	
Methylene Chloride	0.32	0.35	0.043	J	1.1	1.2	0.702	9/10/13 18:37	WSD	
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 18:37	WSD	
4-Methyl-2-pentanone (MIBK)	0.11	0.035	0.0084		0.46	0.14	0.702	9/10/13 18:37	WSD	
Propene	0.40	1.4	0.11	J	0.70	2.4	0.702	9/10/13 18:37	WSD	
Styrene	0.039	0.035	0.0068		0.17	0.15	0.702	9/10/13 18:37	WSD	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 18:37	WSD	
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 18:37	WSD	
Tetrachloroethylene	0.036	0.035	0.010		0.25	0.24	0.702	9/10/13 18:37	WSD	
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	9/10/13 18:37	WSD	
Toluene	0.36	0.035	0.011		1.3	0.13	0.702	9/10/13 18:37	WSD	
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 18:37	WSD	
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 18:37	WSD	
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 18:37	WSD	
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 18:37	WSD	
Trichlorofluoromethane (Freon 11)	0.23	0.035	0.012		1.3	0.20	0.702	9/10/13 18:37	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.079	0.035	0.0098		0.60	0.27	0.702	9/10/13 18:37	WSD	
1,2,4-Trimethylbenzene	0.041	0.035	0.0086		0.20	0.17	0.702	9/10/13 18:37	WSD	
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 18:37	WSD	
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 18:37	WSD	
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 18:37	WSD	
m&p-Xylene	0.11	0.070	0.018		0.48	0.30	0.702	9/10/13 18:37	WSD	
o-Xylene	0.047	0.035	0.010		0.20	0.15	0.702	9/10/13 18:37	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.1	70-130	9/10/13 18:37
4-Bromofluorobenzene (2)	95.6	70-130	9/10/13 18:37

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-3-090613
Sample ID: 1310181-03
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:02

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1305
 Canister Size: 6 liter
 Flow Controller ID: 4187
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	6.8	1.4	0.49		16	3.3	0.702	9/10/13 19:20	WSD	
Benzene	0.23	0.035	0.018		0.75	0.11	0.702	9/10/13 19:20	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 19:20	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 19:20	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 19:20	WSD	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 19:20	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 19:20	WSD	
2-Butanone (MEK)	1.0	1.4	0.026	J	2.9	4.1	0.702	9/10/13 19:20	WSD	
Carbon Disulfide	0.079	0.35	0.012	J	0.25	1.1	0.702	9/10/13 19:20	WSD	
Carbon Tetrachloride	0.075	0.035	0.0085		0.47	0.22	0.702	9/10/13 19:20	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 19:20	WSD	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 19:20	WSD	
Chloroform	0.044	0.035	0.0082		0.21	0.17	0.702	9/10/13 19:20	WSD	
Chloromethane	0.54	0.070	0.015		1.1	0.14	0.702	9/10/13 19:20	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 19:20	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 19:20	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 19:20	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 19:20	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 19:20	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 19:20	WSD	
Dichlorodifluoromethane (Freon 12)	0.37	0.035	0.015		1.8	0.17	0.702	9/10/13 19:20	WSD	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 19:20	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 19:20	WSD	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 19:20	WSD	
cis-1,2-Dichloroethylene	0.049	0.035	0.013		0.19	0.14	0.702	9/10/13 19:20	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 19:20	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 19:20	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 19:20	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 19:20	WSD	
Ethanol	14	1.4	0.63	L-03	27	2.6	0.702	9/10/13 19:20	WSD	
Ethyl Acetate	0.093	0.035	0.026		0.34	0.13	0.702	9/10/13 19:20	WSD	
Ethylbenzene	0.083	0.035	0.0097		0.36	0.15	0.702	9/10/13 19:20	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 19:20	WSD	
Heptane	0.20	0.035	0.011		0.83	0.14	0.702	9/10/13 19:20	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 19:20	WSD	
Hexane	0.27	1.4	0.062	J	0.94	4.9	0.702	9/10/13 19:20	WSD	
2-Hexanone (MBK)	0.076	0.035	0.0090		0.31	0.14	0.702	9/10/13 19:20	WSD	
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 19:20	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-3-090613
Sample ID: 1310181-03
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:02

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1305
 Canister Size: 6 liter
 Flow Controller ID: 4187
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 19:20	WSD
Methylene Chloride	0.36	0.35	0.043		1.2	1.2	0.702	9/10/13 19:20	WSD
Methyl methacrylate	0.045	0.035	0.011		0.18	0.14	0.702	9/10/13 19:20	WSD
4-Methyl-2-pentanone (MIBK)	0.088	0.035	0.0084		0.36	0.14	0.702	9/10/13 19:20	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 19:20	WSD
Styrene	0.071	0.035	0.0068		0.30	0.15	0.702	9/10/13 19:20	WSD
1,1,1,2-Tetrachloroethane	0.067	0.064	0.023		0.46	0.44	0.702	9/10/13 19:20	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 19:20	WSD
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	9/10/13 19:20	WSD
Tetrahydrofuran	0.25	0.035	0.015		0.73	0.10	0.702	9/10/13 19:20	WSD
Toluene	1.2	0.035	0.011		4.6	0.13	0.702	9/10/13 19:20	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 19:20	WSD
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 19:20	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 19:20	WSD
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 19:20	WSD
Trichlorofluoromethane (Freon 11)	0.28	0.035	0.012		1.6	0.20	0.702	9/10/13 19:20	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.081	0.035	0.0098		0.62	0.27	0.702	9/10/13 19:20	WSD
1,2,4-Trimethylbenzene	0.068	0.035	0.0086		0.33	0.17	0.702	9/10/13 19:20	WSD
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 19:20	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 19:20	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 19:20	WSD
m&p-Xylene	0.26	0.070	0.018		1.1	0.30	0.702	9/10/13 19:20	WSD
o-Xylene	0.11	0.035	0.010		0.46	0.15	0.702	9/10/13 19:20	WSD

Surrogates	% Recovery	% REC Limits	Date/Time Analyzed
4-Bromofluorobenzene (1)	98.8	70-130	9/10/13 19:20
4-Bromofluorobenzene (2)	96.0	70-130	9/10/13 19:20

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-4-090613
Sample ID: 1310181-04
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:03

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1732
 Canister Size: 6 liter
 Flow Controller ID: 4175
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	7.4	1.4	0.49		18	3.3	0.702	9/10/13	20:02	WSD
Benzene	0.15	0.035	0.018		0.47	0.11	0.702	9/10/13	20:02	WSD
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13	20:02	WSD
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13	20:02	WSD
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13	20:02	WSD
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13	20:02	WSD
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13	20:02	WSD
2-Butanone (MEK)	0.32	1.4	0.026	J	0.95	4.1	0.702	9/10/13	20:02	WSD
Carbon Disulfide	0.13	0.35	0.012	J	0.39	1.1	0.702	9/10/13	20:02	WSD
Carbon Tetrachloride	0.072	0.035	0.0085		0.45	0.22	0.702	9/10/13	20:02	WSD
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13	20:02	WSD
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13	20:02	WSD
Chloroform	0.055	0.035	0.0082		0.27	0.17	0.702	9/10/13	20:02	WSD
Chloromethane	0.50	0.070	0.015		1.0	0.14	0.702	9/10/13	20:02	WSD
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13	20:02	WSD
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13	20:02	WSD
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13	20:02	WSD
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13	20:02	WSD
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13	20:02	WSD
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13	20:02	WSD
Dichlorodifluoromethane (Freon 12)	0.36	0.035	0.015		1.8	0.17	0.702	9/10/13	20:02	WSD
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13	20:02	WSD
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13	20:02	WSD
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13	20:02	WSD
cis-1,2-Dichloroethylene	0.044	0.035	0.013		0.18	0.14	0.702	9/10/13	20:02	WSD
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13	20:02	WSD
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13	20:02	WSD
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13	20:02	WSD
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13	20:02	WSD
Ethanol	38	4.0	1.8	L-03	71	7.5	2	9/13/13	5:07	WSD
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	9/10/13	20:02	WSD
Ethylbenzene	0.043	0.035	0.0097		0.19	0.15	0.702	9/10/13	20:02	WSD
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13	20:02	WSD
Heptane	0.039	0.035	0.011		0.16	0.14	0.702	9/10/13	20:02	WSD
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13	20:02	WSD
Hexane	0.15	1.4	0.062	J	0.53	4.9	0.702	9/10/13	20:02	WSD
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	9/10/13	20:02	WSD
Isopropanol	0.67	1.4	0.043	J	1.6	3.4	0.702	9/10/13	20:02	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-4-090613
Sample ID: 1310181-04
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:03

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1732
 Canister Size: 6 liter
 Flow Controller ID: 4175
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analyzed		
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 20:02	WSD	
Methylene Chloride	0.26	0.35	0.043	J	0.89	1.2	0.702	9/10/13 20:02	WSD	
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 20:02	WSD	
4-Methyl-2-pentanone (MIBK)	0.12	0.035	0.0084		0.47	0.14	0.702	9/10/13 20:02	WSD	
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 20:02	WSD	
Styrene	ND	0.035	0.0068		ND	0.15	0.702	9/10/13 20:02	WSD	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 20:02	WSD	
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 20:02	WSD	
Tetrachloroethylene	0.045	0.035	0.010		0.30	0.24	0.702	9/10/13 20:02	WSD	
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	9/10/13 20:02	WSD	
Toluene	0.38	0.035	0.011		1.4	0.13	0.702	9/10/13 20:02	WSD	
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 20:02	WSD	
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 20:02	WSD	
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 20:02	WSD	
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 20:02	WSD	
Trichlorofluoromethane (Freon 11)	0.23	0.035	0.012		1.3	0.20	0.702	9/10/13 20:02	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.084	0.035	0.0098		0.65	0.27	0.702	9/10/13 20:02	WSD	
1,2,4-Trimethylbenzene	0.041	0.035	0.0086		0.20	0.17	0.702	9/10/13 20:02	WSD	
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 20:02	WSD	
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 20:02	WSD	
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 20:02	WSD	
m&p-Xylene	0.12	0.070	0.018		0.53	0.30	0.702	9/10/13 20:02	WSD	
o-Xylene	0.054	0.035	0.010		0.23	0.15	0.702	9/10/13 20:02	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.4	70-130	9/13/13 5:07
4-Bromofluorobenzene (1)	98.1	70-130	9/10/13 20:02
4-Bromofluorobenzene (2)	97.0	70-130	9/10/13 20:02

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-5-090613
Sample ID: 1310181-05
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 14:31

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1047
 Canister Size: 6 liter
 Flow Controller ID: 4178
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -6.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	8.2	1.4	0.49		19	3.3	0.702	9/10/13 20:45	WSD	
Benzene	0.21	0.035	0.018		0.68	0.11	0.702	9/10/13 20:45	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 20:45	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 20:45	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 20:45	WSD	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 20:45	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 20:45	WSD	
2-Butanone (MEK)	0.83	1.4	0.026	J	2.4	4.1	0.702	9/10/13 20:45	WSD	
Carbon Disulfide	0.042	0.35	0.012	J	0.13	1.1	0.702	9/10/13 20:45	WSD	
Carbon Tetrachloride	0.075	0.035	0.0085		0.47	0.22	0.702	9/10/13 20:45	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 20:45	WSD	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 20:45	WSD	
Chloroform	0.036	0.035	0.0082		0.17	0.17	0.702	9/10/13 20:45	WSD	
Chloromethane	0.56	0.070	0.015		1.2	0.14	0.702	9/10/13 20:45	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 20:45	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 20:45	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 20:45	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 20:45	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 20:45	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 20:45	WSD	
Dichlorodifluoromethane (Freon 12)	0.38	0.035	0.015		1.9	0.17	0.702	9/10/13 20:45	WSD	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 20:45	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 20:45	WSD	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 20:45	WSD	
cis-1,2-Dichloroethylene	0.046	0.035	0.013		0.18	0.14	0.702	9/10/13 20:45	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 20:45	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 20:45	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 20:45	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 20:45	WSD	
Ethanol	8.0	1.4	0.63	L-03	15	2.6	0.702	9/10/13 20:45	WSD	
Ethyl Acetate	0.080	0.035	0.026		0.29	0.13	0.702	9/10/13 20:45	WSD	
Ethylbenzene	0.059	0.035	0.0097		0.26	0.15	0.702	9/10/13 20:45	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 20:45	WSD	
Heptane	0.11	0.035	0.011		0.46	0.14	0.702	9/10/13 20:45	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 20:45	WSD	
Hexane	0.21	1.4	0.062	J	0.75	4.9	0.702	9/10/13 20:45	WSD	
2-Hexanone (MBK)	0.11	0.035	0.0090		0.44	0.14	0.702	9/10/13 20:45	WSD	
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 20:45	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-5-090613
Sample ID: 1310181-05
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 14:31

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1047
 Canister Size: 6 liter
 Flow Controller ID: 4178
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -6.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
		RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 20:45	WSD
Methylene Chloride	0.30	0.35	0.043	J	1.1	1.2	0.702	9/10/13 20:45	WSD
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 20:45	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	9/10/13 20:45	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 20:45	WSD
Styrene	0.048	0.035	0.0068		0.20	0.15	0.702	9/10/13 20:45	WSD
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 20:45	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 20:45	WSD
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	9/10/13 20:45	WSD
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	9/10/13 20:45	WSD
Toluene	0.69	0.035	0.011		2.6	0.13	0.702	9/10/13 20:45	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 20:45	WSD
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 20:45	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 20:45	WSD
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 20:45	WSD
Trichlorofluoromethane (Freon 11)	0.29	0.035	0.012		1.6	0.20	0.702	9/10/13 20:45	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.082	0.035	0.0098		0.63	0.27	0.702	9/10/13 20:45	WSD
1,2,4-Trimethylbenzene	0.055	0.035	0.0086		0.27	0.17	0.702	9/10/13 20:45	WSD
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 20:45	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 20:45	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 20:45	WSD
m&p-Xylene	0.19	0.070	0.018		0.81	0.30	0.702	9/10/13 20:45	WSD
o-Xylene	0.075	0.035	0.010		0.33	0.15	0.702	9/10/13 20:45	WSD

Surrogates	% Recovery	% REC Limits	Date/Time Analyzed
4-Bromofluorobenzene (1)	99.2	70-130	9/10/13 20:45
4-Bromofluorobenzene (2)	98.3	70-130	9/10/13 20:45

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-6-090613
Sample ID: 1310181-06
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 14:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1465
 Canister Size: 6 liter
 Flow Controller ID: 4181
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	12	1.4	0.49		29	3.3	0.702	9/10/13 21:28	WSD	
Benzene	0.22	0.035	0.018		0.70	0.11	0.702	9/10/13 21:28	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 21:28	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 21:28	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 21:28	WSD	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 21:28	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 21:28	WSD	
2-Butanone (MEK)	0.93	1.4	0.026	J	2.8	4.1	0.702	9/10/13 21:28	WSD	
Carbon Disulfide	0.042	0.35	0.012	J	0.13	1.1	0.702	9/10/13 21:28	WSD	
Carbon Tetrachloride	0.075	0.035	0.0085		0.47	0.22	0.702	9/10/13 21:28	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 21:28	WSD	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 21:28	WSD	
Chloroform	0.039	0.035	0.0082		0.19	0.17	0.702	9/10/13 21:28	WSD	
Chloromethane	0.55	0.070	0.015		1.1	0.14	0.702	9/10/13 21:28	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 21:28	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 21:28	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 21:28	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 21:28	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 21:28	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 21:28	WSD	
Dichlorodifluoromethane (Freon 12)	0.38	0.035	0.015		1.9	0.17	0.702	9/10/13 21:28	WSD	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 21:28	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 21:28	WSD	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 21:28	WSD	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	9/10/13 21:28	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 21:28	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 21:28	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 21:28	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 21:28	WSD	
Ethanol	11	1.4	0.63	L-03	21	2.6	0.702	9/10/13 21:28	WSD	
Ethyl Acetate	0.12	0.035	0.026		0.42	0.13	0.702	9/10/13 21:28	WSD	
Ethylbenzene	0.067	0.035	0.0097		0.29	0.15	0.702	9/10/13 21:28	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 21:28	WSD	
Heptane	0.12	0.035	0.011		0.47	0.14	0.702	9/10/13 21:28	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 21:28	WSD	
Hexane	0.24	1.4	0.062	J	0.85	4.9	0.702	9/10/13 21:28	WSD	
2-Hexanone (MBK)	0.12	0.035	0.0090		0.48	0.14	0.702	9/10/13 21:28	WSD	
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 21:28	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-6-090613
Sample ID: 1310181-06
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 14:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1465
 Canister Size: 6 liter
 Flow Controller ID: 4181
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analyzed		
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 21:28	WSD	
Methylene Chloride	0.33	0.35	0.043	J	1.1	1.2	0.702	9/10/13 21:28	WSD	
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 21:28	WSD	
4-Methyl-2-pentanone (MIBK)	0.074	0.035	0.0084		0.30	0.14	0.702	9/10/13 21:28	WSD	
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 21:28	WSD	
Styrene	0.053	0.035	0.0068		0.22	0.15	0.702	9/10/13 21:28	WSD	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 21:28	WSD	
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 21:28	WSD	
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	9/10/13 21:28	WSD	
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	9/10/13 21:28	WSD	
Toluene	0.70	0.035	0.011		2.6	0.13	0.702	9/10/13 21:28	WSD	
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 21:28	WSD	
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 21:28	WSD	
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 21:28	WSD	
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 21:28	WSD	
Trichlorofluoromethane (Freon 11)	0.30	0.035	0.012		1.7	0.20	0.702	9/10/13 21:28	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.086	0.035	0.0098		0.66	0.27	0.702	9/10/13 21:28	WSD	
1,2,4-Trimethylbenzene	0.055	0.035	0.0086		0.27	0.17	0.702	9/10/13 21:28	WSD	
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 21:28	WSD	
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 21:28	WSD	
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 21:28	WSD	
m&p-Xylene	0.19	0.070	0.018		0.81	0.30	0.702	9/10/13 21:28	WSD	
o-Xylene	0.074	0.035	0.010		0.32	0.15	0.702	9/10/13 21:28	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	9/10/13 21:28
4-Bromofluorobenzene (2)	98.6	70-130	9/10/13 21:28

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-7-090613
Sample ID: 1310181-07
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:21

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1045
 Canister Size: 6 liter
 Flow Controller ID: 4174
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	19	1.4	0.49		46	3.3	0.702	9/10/13 22:10	WSD	
Benzene	0.14	0.035	0.018		0.43	0.11	0.702	9/10/13 22:10	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 22:10	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 22:10	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 22:10	WSD	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 22:10	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 22:10	WSD	
2-Butanone (MEK)	0.55	1.4	0.026	J	1.6	4.1	0.702	9/10/13 22:10	WSD	
Carbon Disulfide	0.19	0.35	0.012	J	0.60	1.1	0.702	9/10/13 22:10	WSD	
Carbon Tetrachloride	0.073	0.035	0.0085		0.46	0.22	0.702	9/10/13 22:10	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 22:10	WSD	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 22:10	WSD	
Chloroform	0.096	0.035	0.0082		0.47	0.17	0.702	9/10/13 22:10	WSD	
Chloromethane	0.63	0.070	0.015		1.3	0.14	0.702	9/10/13 22:10	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 22:10	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 22:10	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 22:10	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 22:10	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 22:10	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 22:10	WSD	
Dichlorodifluoromethane (Freon 12)	0.43	0.035	0.015		2.1	0.17	0.702	9/10/13 22:10	WSD	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 22:10	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 22:10	WSD	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 22:10	WSD	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	9/10/13 22:10	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 22:10	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 22:10	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 22:10	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 22:10	WSD	
Ethanol	11	1.4	0.63	L-03	21	2.6	0.702	9/10/13 22:10	WSD	
Ethyl Acetate	0.37	0.035	0.026		1.3	0.13	0.702	9/10/13 22:10	WSD	
Ethylbenzene	0.11	0.035	0.0097		0.48	0.15	0.702	9/10/13 22:10	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 22:10	WSD	
Heptane	0.28	0.035	0.011		1.1	0.14	0.702	9/10/13 22:10	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 22:10	WSD	
Hexane	0.36	1.4	0.062	J	1.3	4.9	0.702	9/10/13 22:10	WSD	
2-Hexanone (MBK)	0.036	0.035	0.0090		0.15	0.14	0.702	9/10/13 22:10	WSD	
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 22:10	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: IA-7-090613
Sample ID: 1310181-07
 Sample Matrix: Indoor air
 Sampled: 9/6/2013 11:21

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1045
 Canister Size: 6 liter
 Flow Controller ID: 4174
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analized		
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 22:10	WSD	
Methylene Chloride	0.36	0.35	0.043		1.3	1.2	0.702	9/10/13 22:10	WSD	
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 22:10	WSD	
4-Methyl-2-pentanone (MIBK)	0.049	0.035	0.0084		0.20	0.14	0.702	9/10/13 22:10	WSD	
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 22:10	WSD	
Styrene	0.61	0.035	0.0068		2.6	0.15	0.702	9/10/13 22:10	WSD	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 22:10	WSD	
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 22:10	WSD	
Tetrachloroethylene	0.81	0.035	0.010		5.5	0.24	0.702	9/10/13 22:10	WSD	
Tetrahydrofuran	0.22	0.035	0.015		0.65	0.10	0.702	9/10/13 22:10	WSD	
Toluene	1.2	0.035	0.011		4.7	0.13	0.702	9/10/13 22:10	WSD	
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 22:10	WSD	
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 22:10	WSD	
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 22:10	WSD	
Trichloroethylene	0.099	0.035	0.010		0.53	0.19	0.702	9/10/13 22:10	WSD	
Trichlorofluoromethane (Freon 11)	0.32	0.035	0.012		1.8	0.20	0.702	9/10/13 22:10	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.083	0.035	0.0098		0.63	0.27	0.702	9/10/13 22:10	WSD	
1,2,4-Trimethylbenzene	0.081	0.035	0.0086		0.40	0.17	0.702	9/10/13 22:10	WSD	
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 22:10	WSD	
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 22:10	WSD	
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 22:10	WSD	
m&p-Xylene	0.27	0.070	0.018		1.2	0.30	0.702	9/10/13 22:10	WSD	
o-Xylene	0.10	0.035	0.010		0.44	0.15	0.702	9/10/13 22:10	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	9/10/13 22:10
4-Bromofluorobenzene (2)	102	70-130	9/10/13 22:10

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: AA-1-090613
Sample ID: 1310181-08
 Sample Matrix: Ambient Air
 Sampled: 9/6/2013 12:49

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1016
 Canister Size: 6 liter
 Flow Controller ID: 4179
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -26
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	6.6	1.4	0.49		16	3.3	0.702	9/10/13 17:10	WSD	
Benzene	0.22	0.035	0.018		0.70	0.11	0.702	9/10/13 17:10	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 17:10	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 17:10	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 17:10	WSD	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/10/13 17:10	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 17:10	WSD	
2-Butanone (MEK)	1.3	1.4	0.026	J	3.7	4.1	0.702	9/10/13 17:10	WSD	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	9/10/13 17:10	WSD	
Carbon Tetrachloride	0.074	0.035	0.0085		0.47	0.22	0.702	9/10/13 17:10	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 17:10	WSD	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/10/13 17:10	WSD	
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	9/10/13 17:10	WSD	
Chloromethane	0.51	0.070	0.015		1.1	0.14	0.702	9/10/13 17:10	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 17:10	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 17:10	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 17:10	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 17:10	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 17:10	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 17:10	WSD	
Dichlorodifluoromethane (Freon 12)	0.41	0.035	0.015		2.0	0.17	0.702	9/10/13 17:10	WSD	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	9/10/13 17:10	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 17:10	WSD	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/10/13 17:10	WSD	
cis-1,2-Dichloroethylene	0.040	0.035	0.013		0.16	0.14	0.702	9/10/13 17:10	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 17:10	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 17:10	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 17:10	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 17:10	WSD	
Ethanol	3.6	1.4	0.63	L-03	6.7	2.6	0.702	9/10/13 17:10	WSD	
Ethyl Acetate	4.8	0.035	0.026		17	0.13	0.702	9/10/13 17:10	WSD	
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	9/10/13 17:10	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 17:10	WSD	
Heptane	0.037	0.035	0.011		0.15	0.14	0.702	9/10/13 17:10	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 17:10	WSD	
Hexane	0.64	1.4	0.062	J	2.3	4.9	0.702	9/10/13 17:10	WSD	
2-Hexanone (MBK)	0.079	0.035	0.0090		0.32	0.14	0.702	9/10/13 17:10	WSD	
Isopropanol	2.5	1.4	0.043		6.2	3.4	0.702	9/10/13 17:10	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: AA-1-090613
Sample ID: 1310181-08
 Sample Matrix: Ambient Air
 Sampled: 9/6/2013 12:49

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1016
 Canister Size: 6 liter
 Flow Controller ID: 4179
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -26
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
		RL	MDL		Results	RL			
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 17:10	WSD
Methylene Chloride	2.6	0.35	0.043		9.1	1.2	0.702	9/10/13 17:10	WSD
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 17:10	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	9/10/13 17:10	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 17:10	WSD
Styrene	ND	0.035	0.0068		ND	0.15	0.702	9/10/13 17:10	WSD
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 17:10	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 17:10	WSD
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	9/10/13 17:10	WSD
Tetrahydrofuran	0.46	0.035	0.015		1.4	0.10	0.702	9/10/13 17:10	WSD
Toluene	0.37	0.035	0.011		1.4	0.13	0.702	9/10/13 17:10	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 17:10	WSD
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	9/10/13 17:10	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 17:10	WSD
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	9/10/13 17:10	WSD
Trichlorofluoromethane (Freon 11)	1.9	0.035	0.012		11	0.20	0.702	9/10/13 17:10	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.078	0.035	0.0098		0.60	0.27	0.702	9/10/13 17:10	WSD
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17	0.702	9/10/13 17:10	WSD
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/10/13 17:10	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 17:10	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/10/13 17:10	WSD
m&p-Xylene	0.048	0.070	0.018	J	0.21	0.30	0.702	9/10/13 17:10	WSD
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	9/10/13 17:10	WSD

Surrogates	% Recovery	% REC Limits	Date/Time Analyzed
4-Bromofluorobenzene (1)	95.9	70-130	9/10/13 17:10
4-Bromofluorobenzene (2)	93.9	70-130	9/10/13 17:10

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-5-090613
Sample ID: 1310181-09
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 12:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1249
 Canister Size: 6 liter
 Flow Controller ID: 4182
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -14
 Receipt Vacuum(in Hg): -13
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Date/Time		Analyst
	Results	RL	MDL		Results	RL	Dilution	Analyzed	
Acetone	2900	1600	560		6800	3800	800	9/11/13 9:39	WSD
Benzene	2.2	0.047	0.024		7.1	0.15	0.936	9/10/13 22:53	WSD
Benzyl chloride	ND	0.047	0.0091		ND	0.24	0.936	9/10/13 22:53	WSD
Bromodichloromethane	ND	0.047	0.010		ND	0.31	0.936	9/10/13 22:53	WSD
Bromoform	ND	0.047	0.0090		ND	0.48	0.936	9/10/13 22:53	WSD
Bromomethane	ND	0.047	0.032		ND	0.18	0.936	9/10/13 22:53	WSD
1,3-Butadiene	ND	0.047	0.024		ND	0.10	0.936	9/10/13 22:53	WSD
2-Butanone (MEK)	11000	1600	30		31000	4700	800	9/11/13 9:39	WSD
Carbon Disulfide	25	0.47	0.016		77	1.5	0.936	9/10/13 22:53	WSD
Carbon Tetrachloride	0.075	0.047	0.011		0.47	0.29	0.936	9/10/13 22:53	WSD
Chlorobenzene	ND	0.047	0.016		ND	0.22	0.936	9/10/13 22:53	WSD
Chloroethane	1.5	0.047	0.018		4.0	0.12	0.936	9/10/13 22:53	WSD
Chloroform	0.32	0.047	0.011		1.6	0.23	0.936	9/10/13 22:53	WSD
Chloromethane	ND	0.094	0.020		ND	0.19	0.936	9/10/13 22:53	WSD
Cyclohexane	ND	0.047	0.027		ND	0.16	0.936	9/10/13 22:53	WSD
Dibromochloromethane	ND	0.047	0.012		ND	0.40	0.936	9/10/13 22:53	WSD
1,2-Dibromoethane (EDB)	ND	0.047	0.010		ND	0.36	0.936	9/10/13 22:53	WSD
1,2-Dichlorobenzene	ND	0.047	0.012		ND	0.28	0.936	9/10/13 22:53	WSD
1,3-Dichlorobenzene	ND	0.047	0.010		ND	0.28	0.936	9/10/13 22:53	WSD
1,4-Dichlorobenzene	ND	0.047	0.012		ND	0.28	0.936	9/10/13 22:53	WSD
Dichlorodifluoromethane (Freon 12)	0.35	0.047	0.020		1.7	0.23	0.936	9/10/13 22:53	WSD
1,1-Dichloroethane	4.9	0.047	0.013		20	0.19	0.936	9/10/13 22:53	WSD
1,2-Dichloroethane	ND	0.047	0.013		ND	0.19	0.936	9/10/13 22:53	WSD
1,1-Dichloroethylene	1.2	0.047	0.011		4.7	0.19	0.936	9/10/13 22:53	WSD
cis-1,2-Dichloroethylene	3.4	0.047	0.018		13	0.19	0.936	9/10/13 22:53	WSD
trans-1,2-Dichloroethylene	ND	0.047	0.012		ND	0.19	0.936	9/10/13 22:53	WSD
1,2-Dichloropropane	ND	0.047	0.016		ND	0.22	0.936	9/10/13 22:53	WSD
cis-1,3-Dichloropropene	ND	0.047	0.012		ND	0.21	0.936	9/10/13 22:53	WSD
trans-1,3-Dichloropropene	ND	0.047	0.013		ND	0.21	0.936	9/10/13 22:53	WSD
Ethanol	ND	1.9	0.84		ND	3.5	0.936	9/10/13 22:53	WSD
Ethyl Acetate	ND	0.047	0.035		ND	0.17	0.936	9/10/13 22:53	WSD
Ethylbenzene	0.095	0.047	0.013		0.41	0.20	0.936	9/10/13 22:53	WSD
4-Ethyltoluene	ND	0.047	0.011		ND	0.23	0.936	9/10/13 22:53	WSD
Heptane	ND	0.047	0.015		ND	0.19	0.936	9/10/13 22:53	WSD
Hexachlorobutadiene	ND	0.047	0.018		ND	0.50	0.936	9/10/13 22:53	WSD
Hexane	ND	1.9	0.083		ND	6.6	0.936	9/10/13 22:53	WSD
2-Hexanone (MBK)	0.12	0.047	0.012		0.49	0.19	0.936	9/10/13 22:53	WSD
Isopropanol	ND	1.9	0.057		ND	4.6	0.936	9/10/13 22:53	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-5-090613
Sample ID: 1310181-09
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 12:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1249
 Canister Size: 6 liter
 Flow Controller ID: 4182
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -14
 Receipt Vacuum(in Hg): -13
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Date/Time		Analyst
	Results	RL	MDL		Results	RL	Dilution	Analyzed	
Methyl tert-Butyl Ether (MTBE)	ND	0.047	0.014		ND	0.17	0.936	9/10/13 22:53	WSD
Methylene Chloride	0.98	0.47	0.057		3.4	1.6	0.936	9/10/13 22:53	WSD
Methyl methacrylate	ND	0.047	0.014		ND	0.19	0.936	9/10/13 22:53	WSD
4-Methyl-2-pentanone (MIBK)	0.14	0.047	0.011		0.56	0.19	0.936	9/10/13 22:53	WSD
Propene	1.3	1.9	0.14	J	2.3	3.2	0.936	9/10/13 22:53	WSD
Styrene	0.081	0.047	0.0091		0.35	0.20	0.936	9/10/13 22:53	WSD
1,1,1,2-Tetrachloroethane	0.056	0.085	0.031	J	0.39	0.58	0.936	9/10/13 22:53	WSD
1,1,2,2-Tetrachloroethane	ND	0.047	0.011		ND	0.32	0.936	9/10/13 22:53	WSD
Tetrachloroethylene	0.26	0.047	0.013		1.7	0.32	0.936	9/10/13 22:53	WSD
Tetrahydrofuran	8700	40	17		26000	120	800	9/11/13 9:39	WSD
Toluene	1.1	0.047	0.015		4.2	0.18	0.936	9/10/13 22:53	WSD
1,2,4-Trichlorobenzene	ND	0.047	0.018		ND	0.35	0.936	9/10/13 22:53	WSD
1,1,1-Trichloroethane	32	0.047	0.0084		180	0.26	0.936	9/10/13 22:53	WSD
1,1,2-Trichloroethane	ND	0.047	0.014		ND	0.26	0.936	9/10/13 22:53	WSD
Trichloroethylene	34	0.50	0.15		180	2.7	10	9/13/13 11:36	WSD
Trichloroethylene	140	40	12		770	210	800	9/11/13 9:39	WSD
Trichlorofluoromethane (Freon 11)	0.82	0.047	0.016		4.6	0.26	0.936	9/10/13 22:53	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.083	0.047	0.013		0.64	0.36	0.936	9/10/13 22:53	WSD
1,2,4-Trimethylbenzene	0.076	0.047	0.012		0.37	0.23	0.936	9/10/13 22:53	WSD
1,3,5-Trimethylbenzene	ND	0.047	0.0094		ND	0.23	0.936	9/10/13 22:53	WSD
Vinyl Acetate	ND	0.94	0.024		ND	3.3	0.936	9/10/13 22:53	WSD
Vinyl Chloride	1.4	0.047	0.020		3.5	0.12	0.936	9/10/13 22:53	WSD
m&p-Xylene	0.28	0.094	0.024		1.2	0.41	0.936	9/10/13 22:53	WSD
o-Xylene	0.12	0.047	0.013		0.50	0.20	0.936	9/10/13 22:53	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.5	70-130	9/13/13 11:36
4-Bromofluorobenzene (1)	99.7	70-130	9/11/13 9:39
4-Bromofluorobenzene (1)	100	70-130	9/10/13 22:53
4-Bromofluorobenzene (2)	102	70-130	9/10/13 22:53

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-6-090613
Sample ID: 1310181-10
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 14:35

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1078
 Canister Size: 6 liter
 Flow Controller ID: 4180
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	15	1.4	0.49		35	3.3	0.702	9/10/13 23:35	WSD	
Benzene	0.36	0.035	0.018		1.2	0.11	0.702	9/10/13 23:35	WSD	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/10/13 23:35	WSD	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/10/13 23:35	WSD	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/10/13 23:35	WSD	
Bromomethane	0.036	0.035	0.024		0.14	0.14	0.702	9/10/13 23:35	WSD	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/10/13 23:35	WSD	
2-Butanone (MEK)	32	1.4	0.026		95	4.1	0.702	9/10/13 23:35	WSD	
Carbon Disulfide	24	0.35	0.012		74	1.1	0.702	9/10/13 23:35	WSD	
Carbon Tetrachloride	0.076	0.035	0.0085		0.48	0.22	0.702	9/10/13 23:35	WSD	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/10/13 23:35	WSD	
Chloroethane	0.66	0.035	0.013		1.7	0.093	0.702	9/10/13 23:35	WSD	
Chloroform	0.36	0.035	0.0082		1.7	0.17	0.702	9/10/13 23:35	WSD	
Chloromethane	17	0.070	0.015		35	0.14	0.702	9/10/13 23:35	WSD	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/10/13 23:35	WSD	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/10/13 23:35	WSD	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/10/13 23:35	WSD	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/10/13 23:35	WSD	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/10/13 23:35	WSD	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/10/13 23:35	WSD	
Dichlorodifluoromethane (Freon 12)	0.27	0.035	0.015		1.3	0.17	0.702	9/10/13 23:35	WSD	
1,1-Dichloroethane	3.1	0.035	0.0099		13	0.14	0.702	9/10/13 23:35	WSD	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/10/13 23:35	WSD	
1,1-Dichloroethylene	0.29	0.035	0.0086		1.1	0.14	0.702	9/10/13 23:35	WSD	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	9/10/13 23:35	WSD	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/10/13 23:35	WSD	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/10/13 23:35	WSD	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/10/13 23:35	WSD	
Ethanol	7.5	1.4	0.63	L-03	14	2.6	0.702	9/10/13 23:35	WSD	
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	9/10/13 23:35	WSD	
Ethylbenzene	0.088	0.035	0.0097		0.38	0.15	0.702	9/10/13 23:35	WSD	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/10/13 23:35	WSD	
Heptane	0.11	0.035	0.011		0.45	0.14	0.702	9/10/13 23:35	WSD	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/10/13 23:35	WSD	
Hexane	0.25	1.4	0.062	J	0.89	4.9	0.702	9/10/13 23:35	WSD	
2-Hexanone (MBK)	0.093	0.035	0.0090		0.38	0.14	0.702	9/10/13 23:35	WSD	
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/10/13 23:35	WSD	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/10/13 23:35	WSD	

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-6-090613
Sample ID: 1310181-10
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 14:35

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1078
 Canister Size: 6 liter
 Flow Controller ID: 4180
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time Analyzed	Analyst
	Results	RL	MDL		Results	RL			
Methylene Chloride	0.24	0.35	0.043	J	0.84	1.2	0.702	9/10/13 23:35	WSD
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/10/13 23:35	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	9/10/13 23:35	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/10/13 23:35	WSD
Styrene	0.066	0.035	0.0068		0.28	0.15	0.702	9/10/13 23:35	WSD
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/10/13 23:35	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/10/13 23:35	WSD
Tetrachloroethylene	1.2	0.035	0.010		8.3	0.24	0.702	9/10/13 23:35	WSD
Tetrahydrofuran	12000	40	17		35000	120	800	9/11/13 10:17	WSD
Toluene	0.67	0.035	0.011		2.5	0.13	0.702	9/10/13 23:35	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/10/13 23:35	WSD
1,1,1-Trichloroethane	13	0.035	0.0063		71	0.19	0.702	9/10/13 23:35	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/10/13 23:35	WSD
Trichloroethylene	31	0.50	0.15		170	2.7	10	9/13/13 12:14	WSD
Trichloroethylene	27	0.035	0.010		150	0.19	0.702	9/10/13 23:35	WSD
Trichlorofluoromethane (Freon 11)	1.1	0.035	0.012		6.2	0.20	0.702	9/10/13 23:35	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.094	0.035	0.0098		0.72	0.27	0.702	9/10/13 23:35	WSD
1,2,4-Trimethylbenzene	0.12	0.035	0.0086		0.59	0.17	0.702	9/10/13 23:35	WSD
1,3,5-Trimethylbenzene	0.061	0.035	0.0070		0.30	0.17	0.702	9/10/13 23:35	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/10/13 23:35	WSD
Vinyl Chloride	0.84	0.035	0.015		2.2	0.090	0.702	9/10/13 23:35	WSD
m&p-Xylene	0.18	0.070	0.018		0.76	0.30	0.702	9/10/13 23:35	WSD
o-Xylene	0.085	0.035	0.010		0.37	0.15	0.702	9/10/13 23:35	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	98.8	70-130	9/11/13 10:17
4-Bromofluorobenzene (1)	93.2	70-130	9/13/13 12:14
4-Bromofluorobenzene (1)	101	70-130	9/10/13 23:35
4-Bromofluorobenzene (2)	105	70-130	9/10/13 23:35

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-7-090613
Sample ID: 1310181-11
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 11:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1672
 Canister Size: 6 liter
 Flow Controller ID: 4177
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -27
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -5.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	10	1.4	0.49		24	3.3	0.702	9/11/13	0:19	WSD
Benzene	0.61	0.035	0.018		1.9	0.11	0.702	9/11/13	0:19	WSD
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/11/13	0:19	WSD
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/11/13	0:19	WSD
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/11/13	0:19	WSD
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/11/13	0:19	WSD
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/11/13	0:19	WSD
2-Butanone (MEK)	4.0	1.4	0.026		12	4.1	0.702	9/11/13	0:19	WSD
Carbon Disulfide	0.13	0.35	0.012	J	0.42	1.1	0.702	9/11/13	0:19	WSD
Carbon Tetrachloride	0.060	0.035	0.0085		0.38	0.22	0.702	9/11/13	0:19	WSD
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/11/13	0:19	WSD
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	9/11/13	0:19	WSD
Chloroform	1.4	0.035	0.0082		6.6	0.17	0.702	9/11/13	0:19	WSD
Chloromethane	ND	0.070	0.015		ND	0.14	0.702	9/11/13	0:19	WSD
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/11/13	0:19	WSD
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/11/13	0:19	WSD
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/11/13	0:19	WSD
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/11/13	0:19	WSD
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/11/13	0:19	WSD
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/11/13	0:19	WSD
Dichlorodifluoromethane (Freon 12)	0.31	0.035	0.015		1.5	0.17	0.702	9/11/13	0:19	WSD
1,1-Dichloroethane	13	0.035	0.0099		51	0.14	0.702	9/11/13	0:19	WSD
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/11/13	0:19	WSD
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	9/11/13	0:19	WSD
cis-1,2-Dichloroethylene	14	0.035	0.013		54	0.14	0.702	9/11/13	0:19	WSD
trans-1,2-Dichloroethylene	16	0.035	0.0093		64	0.14	0.702	9/11/13	0:19	WSD
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/11/13	0:19	WSD
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/11/13	0:19	WSD
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/11/13	0:19	WSD
Ethanol	7.5	1.4	0.63	L-03	14	2.6	0.702	9/11/13	0:19	WSD
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	9/11/13	0:19	WSD
Ethylbenzene	0.10	0.035	0.0097		0.44	0.15	0.702	9/11/13	0:19	WSD
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/11/13	0:19	WSD
Heptane	0.14	0.035	0.011		0.59	0.14	0.702	9/11/13	0:19	WSD
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/11/13	0:19	WSD
Hexane	0.25	1.4	0.062	J	0.90	4.9	0.702	9/11/13	0:19	WSD
2-Hexanone (MBK)	0.12	0.035	0.0090		0.51	0.14	0.702	9/11/13	0:19	WSD
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/11/13	0:19	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-7-090613
Sample ID: 1310181-11
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 11:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1672
 Canister Size: 6 liter
 Flow Controller ID: 4177
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -27
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -5.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analyzed		
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	9/11/13	0:19	WSD
Methylene Chloride	0.50	0.35	0.043		1.7	1.2	0.702	9/11/13	0:19	WSD
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/11/13	0:19	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	9/11/13	0:19	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/11/13	0:19	WSD
Styrene	0.097	0.035	0.0068		0.41	0.15	0.702	9/11/13	0:19	WSD
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/11/13	0:19	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/11/13	0:19	WSD
Tetrachloroethylene	60	1.0	0.28		410	6.8	20	9/12/13	11:39	WSD
Tetrahydrofuran	3.5	0.035	0.015		10	0.10	0.702	9/11/13	0:19	WSD
Toluene	0.83	0.035	0.011		3.1	0.13	0.702	9/11/13	0:19	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/11/13	0:19	WSD
1,1,1-Trichloroethane	14	0.035	0.0063		76	0.19	0.702	9/11/13	0:19	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/11/13	0:19	WSD
Trichloroethylene	140	1.0	0.30		740	5.4	20	9/12/13	11:39	WSD
Trichlorofluoromethane (Freon 11)	270	1.0	0.35		1500	5.6	20	9/12/13	11:39	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.14	0.035	0.0098		1.1	0.27	0.702	9/11/13	0:19	WSD
1,2,4-Trimethylbenzene	0.10	0.035	0.0086		0.50	0.17	0.702	9/11/13	0:19	WSD
1,3,5-Trimethylbenzene	0.049	0.035	0.0070		0.24	0.17	0.702	9/11/13	0:19	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/11/13	0:19	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/11/13	0:19	WSD
m&p-Xylene	0.24	0.070	0.018		1.0	0.30	0.702	9/11/13	0:19	WSD
o-Xylene	0.092	0.035	0.010		0.40	0.15	0.702	9/11/13	0:19	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	86.3	70-130	9/12/13 11:39
4-Bromofluorobenzene (1)	101	70-130	9/11/13 0:19
4-Bromofluorobenzene (2)	104	70-130	9/11/13 0:19

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-Combined-090613
Sample ID: 1310181-12
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 12:55

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1134
 Canister Size: 6 liter
 Flow Controller ID: 4183
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag	ug/m3		Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL		Analyzed		
Acetone	4.7	1.4	0.49		11	3.3	0.702	9/11/13	1:04	WSD
Benzene	0.26	0.035	0.018		0.82	0.11	0.702	9/11/13	1:04	WSD
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	9/11/13	1:04	WSD
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	9/11/13	1:04	WSD
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	9/11/13	1:04	WSD
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	9/11/13	1:04	WSD
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	9/11/13	1:04	WSD
2-Butanone (MEK)	2.6	1.4	0.026		7.6	4.1	0.702	9/11/13	1:04	WSD
Carbon Disulfide	0.23	0.35	0.012	J	0.73	1.1	0.702	9/11/13	1:04	WSD
Carbon Tetrachloride	0.11	0.035	0.0085		0.68	0.22	0.702	9/11/13	1:04	WSD
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	9/11/13	1:04	WSD
Chloroethane	1.3	0.035	0.013		3.3	0.093	0.702	9/11/13	1:04	WSD
Chloroform	1.4	0.035	0.0082		7.0	0.17	0.702	9/11/13	1:04	WSD
Chloromethane	ND	0.070	0.015		ND	0.14	0.702	9/11/13	1:04	WSD
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	9/11/13	1:04	WSD
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	9/11/13	1:04	WSD
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	9/11/13	1:04	WSD
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	9/11/13	1:04	WSD
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	9/11/13	1:04	WSD
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	9/11/13	1:04	WSD
Dichlorodifluoromethane (Freon 12)	2.2	0.035	0.015		11	0.17	0.702	9/11/13	1:04	WSD
1,1-Dichloroethane	36	1.0	0.28		150	4.0	20	9/12/13	12:17	WSD
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	9/11/13	1:04	WSD
1,1-Dichloroethylene	14	0.035	0.0086		56	0.14	0.702	9/11/13	1:04	WSD
cis-1,2-Dichloroethylene	23	0.035	0.013		93	0.14	0.702	9/11/13	1:04	WSD
trans-1,2-Dichloroethylene	0.65	0.035	0.0093		2.6	0.14	0.702	9/11/13	1:04	WSD
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	9/11/13	1:04	WSD
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	9/11/13	1:04	WSD
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	9/11/13	1:04	WSD
Ethanol	16	1.4	0.63	L-03	30	2.6	0.702	9/11/13	1:04	WSD
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	9/11/13	1:04	WSD
Ethylbenzene	0.045	0.035	0.0097		0.20	0.15	0.702	9/11/13	1:04	WSD
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	9/11/13	1:04	WSD
Heptane	ND	0.035	0.011		ND	0.14	0.702	9/11/13	1:04	WSD
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	9/11/13	1:04	WSD
Hexane	0.63	1.4	0.062	J	2.2	4.9	0.702	9/11/13	1:04	WSD
2-Hexanone (MBK)	0.063	0.035	0.0090		0.26	0.14	0.702	9/11/13	1:04	WSD
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	9/11/13	1:04	WSD

ANALYTICAL RESULTS

Project Location: Providence RI
 Date Received: 9/6/2013
Field Sample #: EW-Combined-090613
Sample ID: 1310181-12
 Sample Matrix: Sub Slab
 Sampled: 9/6/2013 12:55

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1134
 Canister Size: 6 liter
 Flow Controller ID: 4183
 Sample Type: 30 min

Work Order: 1310181
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time		Analyst
		RL	MDL		Results	RL		Analized		
Methyl tert-Butyl Ether (MTBE)	0.047	0.035	0.011		0.17	0.13	0.702	9/11/13	1:04	WSD
Methylene Chloride	1.3	0.35	0.043		4.6	1.2	0.702	9/11/13	1:04	WSD
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	9/11/13	1:04	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	9/11/13	1:04	WSD
Propene	ND	1.4	0.11		ND	2.4	0.702	9/11/13	1:04	WSD
Styrene	ND	0.035	0.0068		ND	0.15	0.702	9/11/13	1:04	WSD
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	9/11/13	1:04	WSD
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	9/11/13	1:04	WSD
Tetrachloroethylene	37	1.0	0.28		250	6.8	20	9/12/13	12:17	WSD
Tetrahydrofuran	3.4	0.035	0.015		10	0.10	0.702	9/11/13	1:04	WSD
Toluene	0.18	0.035	0.011		0.67	0.13	0.702	9/11/13	1:04	WSD
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	9/11/13	1:04	WSD
1,1,1-Trichloroethane	350	1.0	0.18		1900	5.5	20	9/12/13	12:17	WSD
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	9/11/13	1:04	WSD
Trichloroethylene	230	1.0	0.30		1200	5.4	20	9/12/13	12:17	WSD
Trichlorofluoromethane (Freon 11)	74	1.0	0.35		410	5.6	20	9/12/13	12:17	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.17	0.035	0.0098		1.3	0.27	0.702	9/11/13	1:04	WSD
1,2,4-Trimethylbenzene	0.042	0.035	0.0086		0.21	0.17	0.702	9/11/13	1:04	WSD
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	9/11/13	1:04	WSD
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	9/11/13	1:04	WSD
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	9/11/13	1:04	WSD
m&p-Xylene	0.092	0.070	0.018		0.40	0.30	0.702	9/11/13	1:04	WSD
o-Xylene	0.045	0.035	0.010		0.20	0.15	0.702	9/11/13	1:04	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	86.5	70-130	9/12/13 12:17
4-Bromofluorobenzene (1)	101	70-130	9/11/13 1:04
4-Bromofluorobenzene (2)	107	70-130	9/11/13 1:04

Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0181-01 [IA-1-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-02 [IA-2-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-03 [IA-3-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-04 [IA-4-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-05 [IA-5-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-06 [IA-6-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-07 [IA-7-090613]	B080750	1.5	1	N/A	1000	400	855	09/10/13
13I0181-08 [AA-1-090613]	B080750	1	1	N/A	1000	400	570	09/10/13
13I0181-09 [EW-5-090613]	B080750	2	1	N/A	1000	400	855	09/10/13
13I0181-09RE1 [EW-5-090613]	B080750	4	50	20	1000	400	100	09/10/13
13I0181-10 [EW-6-090613]	B080750	1	1	N/A	1000	400	570	09/10/13
13I0181-10RE1 [EW-6-090613]	B080750	2	100	10	1000	400	100	09/10/13
13I0181-11 [EW-7-090613]	B080750	1	1	N/A	1000	400	570	09/10/13
13I0181-12 [EW-Combined-090613]	B080750	1	1	N/A	1000	400	570	09/10/13

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0181-04RE1 [IA-4-090613]	B080751	1.5	1	N/A	1000	400	300	09/12/13
13I0181-09RE2 [EW-5-090613]	B080751	2	1	N/A	1000	400	80	09/12/13
13I0181-10RE2 [EW-6-090613]	B080751	2	1	N/A	1000	400	80	09/12/13

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13I0181-11RE1 [EW-7-090613]	B080753	2	1	N/A	1000	400	40	09/11/13
13I0181-12RE1 [EW-Combined-090613]	B080753	2	1	N/A	1000	400	40	09/11/13

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	

Batch B080750 - TO-15 Prep

Blank (B080750-BLK1)

Prepared & Analyzed: 09/10/13

Acetone	ND	1.0							
Benzene	ND	0.025							
Benzyl chloride	ND	0.025							
Bromodichloromethane	ND	0.025							
Bromoform	ND	0.025							
Bromomethane	ND	0.025							
1,3-Butadiene	ND	0.025							
2-Butanone (MEK)	0.021	1.0							J
Carbon Disulfide	ND	0.25							
Carbon Tetrachloride	ND	0.025							
Chlorobenzene	ND	0.025							
Chloroethane	ND	0.025							
Chloroform	ND	0.025							
Chloromethane	ND	0.050							
Cyclohexane	ND	0.025							
Dibromochloromethane	ND	0.025							
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							
trans-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							
Ethanol	ND	1.0							
Ethyl Acetate	ND	0.025							
Ethylbenzene	ND	0.025							
4-Ethyltoluene	ND	0.025							
Heptane	ND	0.025							
Hexachlorobutadiene	ND	0.025							
Hexane	ND	1.0							
2-Hexanone (MBK)	ND	0.025							
Isopropanol	ND	1.0							
Methyl tert-Butyl Ether (MTBE)	ND	0.025							
Methylene Chloride	0.061	0.25							J
Methyl methacrylate	ND	0.025							
4-Methyl-2-pentanone (MIBK)	ND	0.025							
Propene	ND	1.0							
Styrene	ND	0.025							
1,1,1,2-Tetrachloroethane	ND	0.046							
1,1,2,2-Tetrachloroethane	ND	0.025							

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B080750 - TO-15 Prep

Blank (B080750-BLK1)

Prepared & Analyzed: 09/10/13

Tetrachloroethylene	ND	0.025									
Tetrahydrofuran	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	0.010	0.025									J
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 Acetate	ND	0.50									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.53</i>				<i>8.00</i>		<i>94.1</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>7.43</i>				<i>8.00</i>		<i>92.8</i>	<i>70-130</i>			

LCS (B080750-BS1)

Prepared & Analyzed: 09/10/13

Acetone	4.47				5.00		89.4	70-130			
Benzene	4.40				5.00		88.1	70-130			
Benzyl chloride	4.01				5.00		80.1	70-130			
Bromodichloromethane	4.74				5.00		94.7	70-130			
Bromoform	4.69				5.00		93.8	70-130			
Bromomethane	5.08				5.00		102	70-130			
1,3-Butadiene	4.78				5.00		95.6	70-130			
2-Butanone (MEK)	4.29				5.00		85.7	70-130			
Carbon Disulfide	4.75				5.00		95.0	70-130			
Carbon Tetrachloride	4.53				5.00		90.5	70-130			
Chlorobenzene	4.71				5.00		94.3	70-130			
Chloroethane	4.74				5.00		94.9	70-130			
Chloroform	5.10				5.00		102	70-130			
Chloromethane	4.34				5.00		86.8	70-130			
Cyclohexane	4.21				5.00		84.1	70-130			
Dibromochloromethane	4.69				5.00		93.8	70-130			
1,2-Dibromoethane (EDB)	4.69				5.00		93.8	70-130			
1,2-Dichlorobenzene	4.31				5.00		86.2	70-130			
1,3-Dichlorobenzene	4.51				5.00		90.3	70-130			
1,4-Dichlorobenzene	4.34				5.00		86.8	70-130			
Dichlorodifluoromethane (Freon 12)	4.76				5.00		95.2	70-130			
1,1-Dichloroethane	4.84				5.00		96.9	70-130			
1,2-Dichloroethane	4.92				5.00		98.5	70-130			
1,1-Dichloroethylene	4.29				5.00		85.8	70-130			
cis-1,2-Dichloroethylene	5.13				5.00		103	70-130			
trans-1,2-Dichloroethylene	4.84				5.00		96.7	70-130			
1,2-Dichloropropane	4.50				5.00		89.9	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B080750 - TO-15 Prep											
LCS (B080750-BS1)											
Prepared & Analyzed: 09/10/13											
cis-1,3-Dichloropropene	4.47				5.00		89.5	70-130			
trans-1,3-Dichloropropene	4.50				5.00		89.9	70-130			
Ethanol	2.52				5.00		50.4 *	70-130			L-03
Ethyl Acetate	5.09				5.00		102	70-130			
Ethylbenzene	4.57				5.00		91.5	70-130			
4-Ethyltoluene	4.24				5.00		84.8	70-130			
Heptane	4.31				5.00		86.3	70-130			
Hexachlorobutadiene	3.74				5.00		74.9	70-130			
Hexane	4.64				5.00		92.9	70-130			
2-Hexanone (MBK)	3.77				5.00		75.4	70-130			
Isopropanol	3.58				5.00		71.5	70-130			
Methyl tert-Butyl Ether (MTBE)	4.74				5.00		94.7	70-130			
Methylene Chloride	4.22				5.00		84.3	70-130			
Methyl methacrylate	4.33				5.00		86.6	70-130			
4-Methyl-2-pentanone (MIBK)	4.22				5.00		84.4	70-130			
Propene	4.81				5.00		96.3	70-130			
Styrene	4.58				5.00		91.6	70-130			
1,1,1,2-Tetrachloroethane	0.830				0.910		91.2	70-130			
1,1,2,2-Tetrachloroethane	4.56				5.00		91.2	70-130			
Tetrachloroethylene	4.71				5.00		94.3	70-130			
Tetrahydrofuran	4.46				5.00		89.1	70-130			
Toluene	4.70				5.00		94.0	70-130			
1,2,4-Trichlorobenzene	3.91				5.00		78.3	70-130			
1,1,1-Trichloroethane	4.37				5.00		87.5	70-130			
1,1,2-Trichloroethane	4.80				5.00		96.0	70-130			
Trichloroethylene	4.80				5.00		96.1	70-130			
Trichlorofluoromethane (Freon 11)	4.86				5.00		97.3	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.52				5.00		90.3	70-130			
1,2,4-Trimethylbenzene	4.40				5.00		88.0	70-130			
1,3,5-Trimethylbenzene	4.44				5.00		88.8	70-130			
Vinyl Acetate	3.41				5.00		68.2 *	70-130			L-01
Vinyl Chloride	4.75				5.00		94.9	70-130			
m&p-Xylene	9.25				10.0		92.5	70-130			
o-Xylene	4.62				5.00		92.3	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.94</i>				<i>8.00</i>		<i>99.2</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>7.57</i>				<i>8.00</i>		<i>94.6</i>	<i>70-130</i>			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	RPD Limit	Flag
	Results	RL	Results	RL	ppbv	Result	%REC Limits	RPD		

Batch B080751 - TO-15 Prep

Blank (B080751-BLK1)

Prepared & Analyzed: 09/12/13

Acetone	ND	1.0
Benzene	ND	0.025
Benzyl chloride	ND	0.025
Bromodichloromethane	ND	0.025
Bromoform	ND	0.025
Bromomethane	ND	0.025
1,3-Butadiene	ND	0.025
2-Butanone (MEK)	ND	1.0
Carbon Disulfide	ND	0.25
Carbon Tetrachloride	ND	0.025
Chlorobenzene	ND	0.025
Chloroethane	ND	0.025
Chloroform	ND	0.025
Chloromethane	ND	0.050
Cyclohexane	ND	0.025
Dibromochloromethane	ND	0.025
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
trans-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
Ethanol	ND	1.0
Ethyl Acetate	ND	0.025
Ethylbenzene	ND	0.025
4-Ethyltoluene	ND	0.025
Heptane	ND	0.025
Hexachlorobutadiene	ND	0.025
Hexane	ND	1.0
2-Hexanone (MBK)	ND	0.025
Isopropanol	ND	1.0
Methyl tert-Butyl Ether (MTBE)	ND	0.025
Methylene Chloride	0.054	0.25
Methyl methacrylate	ND	0.025
4-Methyl-2-pentanone (MIBK)	ND	0.025
Propene	ND	1.0
Styrene	ND	0.025
1,1,1,2-Tetrachloroethane	ND	0.046
1,1,2,2-Tetrachloroethane	ND	0.025

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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
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B080751 - TO-15 Prep

Blank (B080751-BLK1)

Prepared & Analyzed: 09/12/13

Tetrachloroethylene	ND	0.025									
Tetrahydrofuran	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 Acetate	ND	0.50									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>6.87</i>				<i>8.00</i>		<i>85.9</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>0.00</i>				<i>8.00</i>		<i>*</i>	<i>70-130</i>			

LCS (B080751-BS1)

Prepared & Analyzed: 09/12/13

Acetone	4.64				5.00		92.9	70-130			
Benzene	4.66				5.00		93.3	70-130			
Benzyl chloride	4.61				5.00		92.1	70-130			
Bromodichloromethane	5.16				5.00		103	70-130			
Bromoform	4.78				5.00		95.7	70-130			
Bromomethane	4.64				5.00		92.8	70-130			
1,3-Butadiene	4.54				5.00		90.8	70-130			
2-Butanone (MEK)	4.34				5.00		86.9	70-130			
Carbon Disulfide	4.38				5.00		87.6	70-130			
Carbon Tetrachloride	4.85				5.00		97.0	70-130			
Chlorobenzene	4.72				5.00		94.4	70-130			
Chloroethane	4.53				5.00		90.5	70-130			
Chloroform	4.60				5.00		92.1	70-130			
Chloromethane	4.28				5.00		85.6	70-130			
Cyclohexane	4.36				5.00		87.3	70-130			
Dibromochloromethane	4.87				5.00		97.4	70-130			
1,2-Dibromoethane (EDB)	4.88				5.00		97.5	70-130			
1,2-Dichlorobenzene	4.50				5.00		90.1	70-130			
1,3-Dichlorobenzene	4.68				5.00		93.7	70-130			
1,4-Dichlorobenzene	4.57				5.00		91.5	70-130			
Dichlorodifluoromethane (Freon 12)	4.62				5.00		92.4	70-130			
1,1-Dichloroethane	4.48				5.00		89.6	70-130			
1,2-Dichloroethane	4.78				5.00		95.7	70-130			
1,1-Dichloroethylene	4.18				5.00		83.6	70-130			
cis-1,2-Dichloroethylene	4.77				5.00		95.4	70-130			
trans-1,2-Dichloroethylene	4.48				5.00		89.6	70-130			
1,2-Dichloropropane	4.94				5.00		98.8	70-130			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B080751 - TO-15 Prep											
LCS (B080751-BS1)											
Prepared & Analyzed: 09/12/13											
cis-1,3-Dichloropropene	4.85				5.00		97.1	70-130			
trans-1,3-Dichloropropene	4.96				5.00		99.3	70-130			
Ethanol	2.44				5.00		48.9 *	70-130			L-03
Ethyl Acetate	5.14				5.00		103	70-130			
Ethylbenzene	4.80				5.00		96.1	70-130			
4-Ethyltoluene	4.54				5.00		90.7	70-130			
Heptane	4.88				5.00		97.5	70-130			
Hexachlorobutadiene	3.83				5.00		76.5	70-130			
Hexane	4.62				5.00		92.4	70-130			
2-Hexanone (MBK)	4.56				5.00		91.2	70-130			
Isopropanol	3.72				5.00		74.4	70-130			
Methyl tert-Butyl Ether (MTBE)	4.32				5.00		86.4	70-130			
Methylene Chloride	4.15				5.00		83.1	70-130			
Methyl methacrylate	4.74				5.00		94.8	70-130			
4-Methyl-2-pentanone (MIBK)	4.80				5.00		96.1	70-130			
Propene	4.86				5.00		97.1	70-130			
Styrene	4.72				5.00		94.4	70-130			
1,1,1,2-Tetrachloroethane	ND	0.091		0.62				70-130			
1,1,2,2-Tetrachloroethane	5.02				5.00		100	70-130			
Tetrachloroethylene	4.60				5.00		92.0	70-130			
Tetrahydrofuran	4.55				5.00		91.0	70-130			
Toluene	4.85				5.00		97.0	70-130			
1,2,4-Trichlorobenzene	4.05				5.00		80.9	70-130			
1,1,1-Trichloroethane	4.76				5.00		95.2	70-130			
1,1,2-Trichloroethane	4.99				5.00		99.7	70-130			
Trichloroethylene	4.86				5.00		97.2	70-130			
Trichlorofluoromethane (Freon 11)	4.52				5.00		90.3	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.07				5.00		81.4	70-130			
1,2,4-Trimethylbenzene	4.70				5.00		94.0	70-130			
1,3,5-Trimethylbenzene	4.71				5.00		94.1	70-130			
Vinyl Acetate	3.28				5.00		65.6 *	70-130			
Vinyl Chloride	4.55				5.00		91.0	70-130			
m&p-Xylene	9.92				10.0		99.2	70-130			
o-Xylene	5.02				5.00		100	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.69</i>				<i>8.00</i>		<i>96.1</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>0.00</i>				<i>8.00</i>		<i>*</i>	<i>70-130</i>			

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	%REC	Limits		

Batch B080753 - TO-15 Prep

Blank (B080753-BLK1)

Prepared & Analyzed: 09/11/13

Acetone	ND	1.0								
Benzene	ND	0.025								
Benzyl chloride	ND	0.025								
Bromodichloromethane	ND	0.025								
Bromoform	ND	0.025								
Bromomethane	ND	0.025								
1,3-Butadiene	ND	0.025								
2-Butanone (MEK)	0.047	1.0								J
Carbon Disulfide	ND	0.25								
Carbon Tetrachloride	ND	0.025								
Chlorobenzene	ND	0.025								
Chloroethane	ND	0.025								
Chloroform	ND	0.025								
Chloromethane	ND	0.050								
Cyclohexane	ND	0.025								
Dibromochloromethane	ND	0.025								
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								
trans-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								
Ethanol	ND	1.0								
Ethyl Acetate	ND	0.025								
Ethylbenzene	ND	0.025								
4-Ethyltoluene	ND	0.025								
Heptane	ND	0.025								
Hexachlorobutadiene	ND	0.025								
Hexane	ND	1.0								
2-Hexanone (MBK)	ND	0.025								
Isopropanol	ND	1.0								
Methyl tert-Butyl Ether (MTBE)	ND	0.025								
Methylene Chloride	0.056	0.25								J
Methyl methacrylate	ND	0.025								
4-Methyl-2-pentanone (MIBK)	ND	0.025								
Propene	ND	1.0								
Styrene	ND	0.025								
1,1,1,2-Tetrachloroethane	ND	0.046								
1,1,2,2-Tetrachloroethane	ND	0.025								

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		

Batch B080753 - TO-15 Prep

Blank (B080753-BLK1)

Prepared & Analyzed: 09/11/13

Tetrachloroethylene	ND	0.025									
Tetrahydrofuran	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 Acetate	ND	0.50									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.22				8.00		90.2		70-130		
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	0.00				8.00		*		70-130		

LCS (B080753-BS1)

Prepared & Analyzed: 09/11/13

Acetone	4.68				5.00		93.5		70-130		
Benzene	4.72				5.00		94.5		70-130		
Benzyl chloride	4.47				5.00		89.4		70-130		
Bromodichloromethane	5.00				5.00		100		70-130		
Bromoform	5.09				5.00		102		70-130		
Bromomethane	5.08				5.00		102		70-130		
1,3-Butadiene	4.78				5.00		95.5		70-130		
2-Butanone (MEK)	4.51				5.00		90.3		70-130		
Carbon Disulfide	4.76				5.00		95.1		70-130		
Carbon Tetrachloride	4.84				5.00		96.8		70-130		
Chlorobenzene	5.06				5.00		101		70-130		
Chloroethane	4.73				5.00		94.5		70-130		
Chloroform	5.22				5.00		104		70-130		
Chloromethane	4.47				5.00		89.5		70-130		
Cyclohexane	4.45				5.00		89.0		70-130		
Dibromochloromethane	5.04				5.00		101		70-130		
1,2-Dibromoethane (EDB)	5.03				5.00		101		70-130		
1,2-Dichlorobenzene	4.65				5.00		93.0		70-130		
1,3-Dichlorobenzene	4.80				5.00		96.1		70-130		
1,4-Dichlorobenzene	4.71				5.00		94.1		70-130		
Dichlorodifluoromethane (Freon 12)	4.94				5.00		98.9		70-130		
1,1-Dichloroethane	4.93				5.00		98.6		70-130		
1,2-Dichloroethane	5.12				5.00		102		70-130		
1,1-Dichloroethylene	4.41				5.00		88.2		70-130		
cis-1,2-Dichloroethylene	5.21				5.00		104		70-130		
trans-1,2-Dichloroethylene	4.89				5.00		97.8		70-130		
1,2-Dichloropropane	4.75				5.00		95.0		70-130		

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag
	Results	RL	Results	RL	ppbv	Result	%REC	Limits	RPD		
Batch B080753 - TO-15 Prep											
LCS (B080753-BS1)											
Prepared & Analyzed: 09/11/13											
cis-1,3-Dichloropropene	4.77				5.00		95.4	70-130			
trans-1,3-Dichloropropene	4.80				5.00		95.9	70-130			
Ethanol	2.56				5.00		51.1 *	70-130			
Ethyl Acetate	5.34				5.00		107	70-130			
Ethylbenzene	4.90				5.00		98.0	70-130			
4-Ethyltoluene	4.60				5.00		92.0	70-130			
Heptane	4.59				5.00		91.7	70-130			
Hexachlorobutadiene	4.14				5.00		82.8	70-130			
Hexane	4.82				5.00		96.4	70-130			
2-Hexanone (MBK)	4.17				5.00		83.3	70-130			
Isopropanol	3.85				5.00		77.0	70-130			
Methyl tert-Butyl Ether (MTBE)	4.96				5.00		99.1	70-130			
Methylene Chloride	4.20				5.00		83.9	70-130			
Methyl methacrylate	4.61				5.00		92.2	70-130			
4-Methyl-2-pentanone (MIBK)	4.56				5.00		91.2	70-130			
Propene	4.97				5.00		99.5	70-130			
Styrene	4.98				5.00		99.6	70-130			
1,1,1,2-Tetrachloroethane	ND	0.091		0.62				70-130			
1,1,2,2-Tetrachloroethane	4.86				5.00		97.2	70-130			
Tetrachloroethylene	5.08				5.00		102	70-130			
Tetrahydrofuran	4.73				5.00		94.6	70-130			
Toluene	5.04				5.00		101	70-130			
1,2,4-Trichlorobenzene	4.43				5.00		88.6	70-130			
1,1,1-Trichloroethane	4.64				5.00		92.8	70-130			
1,1,2-Trichloroethane	5.11				5.00		102	70-130			
Trichloroethylene	4.94				5.00		98.8	70-130			
Trichlorofluoromethane (Freon 11)	4.93				5.00		98.5	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.57				5.00		91.4	70-130			
1,2,4-Trimethylbenzene	4.75				5.00		94.9	70-130			
1,3,5-Trimethylbenzene	4.78				5.00		95.7	70-130			
Vinyl Acetate	3.55				5.00		71.0	70-130			
Vinyl Chloride	4.82				5.00		96.4	70-130			
m&p-Xylene	9.91				10.0		99.1	70-130			
o-Xylene	5.02				5.00		100	70-130			
Surrogate: 4-Bromofluorobenzene (1)	7.69				8.00		96.1	70-130			
Surrogate: 4-Bromofluorobenzene (2)	0.00				8.00		*	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.
- J Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
 - 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.
 - L-03 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Acetone	AIHA
Benzene	AIHA,FL,NJ,NY,VA
Benzyl chloride	AIHA,FL,NJ,NY,VA
Bromodichloromethane	AIHA,NJ,VA
Bromoform	AIHA,NJ,VA
Bromomethane	AIHA,FL,NJ,NY
1,3-Butadiene	AIHA,NJ,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA
Carbon Disulfide	AIHA,NJ,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA
Chlorobenzene	AIHA,FL,NJ,NY,VA
Chloroethane	AIHA,FL,NJ,NY,VA
Chloroform	AIHA,FL,NJ,NY,VA
Chloromethane	AIHA,FL,NJ,NY,VA
Cyclohexane	AIHA,NJ,VA
Dibromochloromethane	AIHA,NY
1,2-Dibromoethane (EDB)	AIHA,NJ,NY
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA
1,3-Dichlorobenzene	AIHA,NJ,NY
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA
trans-1,3-Dichloropropene	AIHA,NY
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA
Hexachlorobutadiene	AIHA,NJ,NY,VA
Hexane	AIHA,FL,NJ,NY,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA
Methylene Chloride	AIHA,FL,NJ,NY,VA
Methyl methacrylate	AIHA,NJ,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA
Tetrachloroethylene	AIHA,FL,NJ,NY,VA
Tetrahydrofuran	AIHA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA TO-15 in Air</i>	
Toluene	AIHA,FL,NJ,NY,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA
Trichloroethylene	AIHA,FL,NJ,NY,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY
1,3,5-Trimethylbenzene	AIHA,NJ,NY
Vinyl Acetate	AIHA,FL,NJ,NY,VA
Vinyl Chloride	AIHA,FL,NJ,NY,VA
m&p-Xylene	AIHA,FL,NJ,NY,VA
o-Xylene	AIHA,FL,NJ,NY,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2013
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2012



Phone: 413-525-2332
 Fax: 413-525-6405
 Email: info@contestlabs.com

www.contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
 EAST LONGMEADOW, MA 01028

Company Name: Ame C

Address: 107A Auburn Rd 301

Wetfield, MA 01888

Attention: Lisa Drabavnicz (Invis)

Project Location: Providence, RI

Sampled By: Mark Maguire

Proposal Provided? (For Billing purposes)

yes no proposal date

Telephone: (339) 927-3797

Project # 3650080114

Client PO # CG 122 03270

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT

Fax #: _____
 Email: Kelly.Chasterton@Ame.com

Format: EXCEL PDF GIS KEY OTHER

Date Sampled

ONLY USE WHEN USING PUMPS

Field ID	Sample Description	Media	Lab #	Date		Total	Flow Rate	Volume	Matrix Code*	ANALYSIS REQUESTED	Hg	Please fill out completely, sign, date and retain the yellow copy for your record
				Start	Stop							
IA-1-090613	IA-1-090613	S	-01	9-6-13 1:30	9-6-13 1200	30	0.2	6	IA	X		Summa canisters returned within 14 days after receipt or rental will apply.
IA-2-090613	IA-2-090613	S	-02	9-6-13 1031	9-6-13 1101	30	0.2	6	IA	X		Summa canisters retained for a minimum of 14 days after sampling date prior to cleaning.
IA-3-090613	IA-3-090613	S	-03	9-6-13 1132	9-6-13 1102	30	0.2	6	IA	X		
IA-4-090613	IA-4-090613	S	-04	9-6-13 1033	9-6-13 1103	30	0.2	6	IA	X		
IA-5-090613	IA-5-090613	S	-05	9-6-13 1401	9-6-13 1431	30	0.2	6	IA	X		
IA-6-090613	IA-6-090613	S	-06	9-6-13 1405	9-6-13 1435	30	0.2	6	IA	X		
IA-7-090613	IA-7-090613	S	-07	9-6-13 1651	9-6-13 1121	30	0.2	6	IA	X		
AA-1-090613	AA-1-090613	S	-08	9-6-13 1219	9-6-13 1249	30	0.2	6	AA	Y		

Laboratory Comments:

CLIENT COMMENTS:

1 canister - not used

Relinquished by: (signature)

Date/Time: 9-6-13

Turnaround **

Special Requirements

*Matrix Code:

**Media Codes:

Received by: (signature)

Date/Time: 9-6-13 15:35

7-Day

Regulations: CT Target Indoor

SG= SOIL GAS

S= summa can

Relinquished by: (signature)

Date/Time: 9-6-13 16:50

10-Day

Data Enhancement/RCP? Y N
 Enhanced Data Package Y N
 (Surcharge Applies)

IA= INDOOR AIR

TB= fedlar bag

Received by: (signature)

Date/Time: 9/6/13

RUSH *

Required Detection Limits: CT Target
 Other: Commercial

D= DUP

F= filter

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.



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AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
 EAST LONGMEADOW, MA 01028

Company Name: Ame C
 Address: 107 Audubon Rd 301
Waltham MA 01820

Attention: Lisa Drabiniowicz

Project Location: Providence, RI
 Sampled By: Mark Messier

Proposal Provided? (For Billing purposes)
 Yes No

Telephone: 354 927-3797
 Project # 3650030114
 Client PO # C012203270

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT

Fax #: see PS 1
 Email: see PS 1

Format: EXCEL PDF GIS KEY OTHER

Field ID	Sample Description	Media Lab #	Date		Total Minutes Sampled	Flow Rate M ³ /Min. or L/Min.	Volume Liters or M ³	Matrix Code*	Analysis Requested	"Hg	Please fill out completely, sign, date and retain the yellow copy for your record
			Start Time	Stop Time							
EW-5-090013	SS-09	SS-09	4-6-13 1206	4-6-13 1236	30	6.2	6	SS	X		Summa canisters returned within 14 days of receipt or rental will apply.
EW-6-070013	SS-10	SS-10	4-6-13 1405	4-6-13 1435	30	6.2	6	SS	X		Summa canisters retained for a minimum of 14 days after sampling date prior to cleaning.
EW-7-090013	SS-11	SS-11	4-6-13 1050	4-6-13 1120	30	6.2	6	SS	X		
EW-Comb-090013	SS-12	SS-12	4-6-13 1225	4-6-13 1255	30	6.2	6	SS	X		

Laboratory Comments:

CLIENT COMMENTS:

Relinquished by: (signature) [Signature] Date/Time: 9-6-13

Received by: (signature) [Signature] Date/Time: 9-6-13

Relinquished by: (signature) [Signature] Date/Time: 9-6-13

Received by: (signature) [Signature] Date/Time: 9/6/13

Turnaround **
 7-Day
 10-Day
 Other _____

RUSH *
 *24-Hr *48-Hr *72-Hr *4-Day

Approval Required

Special Requirements
 Regulations: CT large
 Data Enhancement/RCP? Y N
 Enhanced Data Package Y N
 Required Detection Limits: CT target
 Other: Commercial

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 _____

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.



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

AIR Only Receipt Checklist

CLIENT NAME: AMEC RECEIVED BY: CEC DATE: 9/6/13

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

Stored where:

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

Containers received at Con-Test		
	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	3	6L
Tedlar Bags		
TO-17 Tubes		
Regulators	13	30 Min
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: 1095

Unused Regulators: 4042

- 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:

083	1047	1249	4186	4178	4182
1038	1465	1078	4176	4181	4180
1305	1045	1672	4187	4174	4177
1732	1016	1134	4175	4179	4193

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>
	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.		NA	
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) 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	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.		T	
19) Trip blanks provided if applicable.		NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.		NA	
21) Samples do not require splitting or compositing.		T	

Doc #278 Rev. 3 August 2013

Who notified of False statements?

Log-In Technician Initials: CFC

Date/Time:

Date/Time: 9/6/13

LLSA



APPENDIX B

Analytical Laboratory Detection Limits



39 Spruce Street, 2nd Floor
 East Longmeadow, MA 01028
 413.525.2332
 413.525.6405 (fax)

Analyte:

TO-14 / TO-15	PPBv	UG/M3	PPBv	UG/M3	MW NIST	UG/M3	PPBv
1,1,1-Trichloroethane	ND	ND	0.050	0.27	133.40	1	0.18
1,1,2,2-Tetrachloroethane	ND	ND	0.050	0.34	167.85	1	0.15
1,1,2-Trichloroethane	ND	ND	0.050	0.27	133.40	1	0.18
1,1,2-Trichlorotrifluoroethane (freon 113)	ND	ND	0.050	0.38	187.37	1	0.13
1,1-Dichloroethane	ND	ND	0.050	0.20	98.96	1	0.25
1,1-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
1,2,4-Trichlorobenzene	ND	ND	0.050	0.37	181.45	1	0.13
1,2,4-Trimethylbenzene	ND	ND	0.050	0.25	120.19	1	0.20
1,2-Dibromoethane	ND	ND	0.050	0.38	187.86	1	0.13
1,2-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,2-Dichloroethane	ND	ND	0.050	0.20	98.96	1	0.25
1,2-Dichloropropane	ND	ND	0.050	0.23	112.99	1	0.22
1,2-Dichlorotetrafluoroethane (freon 114)	ND	ND	0.050	0.35	170.92	1	0.14
1,3 - Butadiene	ND	ND	0.050	0.11	54.09	1	0.45
1,3,5-Trimethylbenzene	ND	ND	0.050	0.25	120.19	1	0.20
1,3-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,4-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,4-Dioxane	ND	ND	0.050	0.18	88.11	1	0.28
2-Butanone (MEK)	ND	ND	0.050	0.15	72.11	1	0.34
2-Hexanone (MBK)	ND	ND	0.050	0.20	100.16	1	0.24
4-Ethyltoluene	ND	ND	0.050	0.25	120.19	1	0.20
4-Methyl-2-pentanone(MIBK)	ND	ND	0.050	0.20	100.16	1	0.24
Acetone	ND	ND	0.050	0.12	58.08	1	0.42
Acrolein	ND	ND	0.050	0.11	56.06	1	0.44
Benzene	ND	ND	0.050	0.16	78.11	1	0.31
Benzyl Chloride	ND	ND	0.050	0.26	126.58	1	0.19
Bromodichloromethane	ND	ND	0.050	0.34	163.83	1	0.15
Bromoform	ND	ND	0.050	0.52	252.73	1	0.10
Bromomethane	ND	ND	0.050	0.19	94.94	1	0.26
Carbon Disulfide	ND	ND	0.050	0.16	76.14	1	0.32
Carbon Tetrachloride	ND	ND	0.050	0.31	153.82	1	0.16



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Chlorobenzene	ND	ND	0.050	0.23	112.56	1	0.22
Chloroethane	ND	ND	0.050	0.13	64.51	1	0.38
Chloroform	ND	ND	0.050	0.24	119.38	1	0.20
Chloromethane	ND	ND	0.050	0.10	50.49	1	0.48
cis-1,2-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
cis-1,3-Dichloropropene	ND	ND	0.050	0.23	110.97	1	0.22
Cyclohexane	ND	ND	0.050	0.17	84.16	1	0.29
Dibromochloromethane	ND	ND	0.050	0.43	208.28	1	0.12
Dichlorodifluoromethane (freon 12)	ND	ND	0.050	0.25	120.91	1	0.20
Ethanol	ND	ND	0.050	0.09	46.07	1	0.53
Ethyl Acetate	ND	ND	0.050	0.18	88.11	1	0.28
Ethylbenzene	ND	ND	0.050	0.22	106.17	1	0.23
Heptane	ND	ND	0.050	0.20	100.20	1	0.24
Hexachlorobutadiene	ND	ND	0.050	0.53	260.76	1	0.09
Hexane	ND	ND	0.050	0.18	86.18	1	0.28
Isopropyl Alcohol	ND	ND	0.050	0.12	60.10	1	0.41
M/P Xylenes	ND	ND	0.050	0.22	106.17	1	0.23
Methylene Chloride	ND	ND	0.050	0.17	84.93	1	0.29
Methylmethacrylate	ND	ND	0.050	0.20	100.12	1	0.24
MTBE	ND	ND	0.050	0.18	88.15	1	0.28
O-Xylene	ND	ND	0.050	0.22	106.17	1	0.23
Propene	ND	ND	0.050	0.09	42.08	1	0.58
Styrene	ND	ND	0.050	0.21	104.15	1	0.23
Tetrachloroethene	ND	ND	0.050	0.34	165.83	1	0.15
Tetrahydrofuran	ND	ND	0.050	0.15	72.11	1	0.34
Toluene	ND	ND	0.050	0.19	92.14	1	0.27
trans-1,2-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
trans-1,3-Dichloropropene	ND	ND	0.050	0.23	110.97	1	0.22
Trichloroethene	ND	ND	0.050	0.27	131.39	1	0.19
Trichlorofluoromethane (freon 11)	ND	ND	0.050	0.28	137.37	1	0.18
Vinyl Acetate	ND	ND	0.050	0.18	86.09	1	0.28
Vinyl Chloride	ND	ND	0.050	0.13	62.50	1	0.39



39 Spruce Street, 2nd Floor
East Longmeadow, MA 01028
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413.525.6405 (fax)

APH COMPOUNDS

1,2,3-Trimethylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1,3 Butadiene	ND	ND	0.94	2.08	54.09	1	0.45
1,3,5-Trimethylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1-Ethyl-3-Methylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1-Methylnaphthalene	ND	ND	0.94	5.47	142.20	1	0.17
2,3-Dimethylheptane	ND	ND	0.94	4.93	128.26	1	0.19
2,3-Dimethylpentane	ND	ND	0.94	3.85	100.20	1	0.24
2-Methylnaphthalene	ND	ND	0.94	5.47	142.20	1	0.17
Benzene	ND	ND	0.94	3.00	78.11	1	0.31
Butyl Cyclohexane	ND	ND	0.94	5.39	140.27	1	0.17
Cyclohexane	ND	ND	0.94	3.24	84.16	1	0.29
Decane	ND	ND	0.94	5.47	142.28	1	0.17
Dodecane	ND	ND	0.94	6.55	170.33	1	0.14
Ethylbenzene	ND	ND	0.94	4.08	106.17	1	0.23
Heptane	ND	ND	0.94	3.85	100.20	1	0.24
Hexane	ND	ND	0.94	3.31	86.18	1	0.28
Hexyl Cyclohexane	ND	ND	0.94	6.47	168.32	1	0.15
Indene	ND	ND	0.94	4.47	116.16	1	0.21
Isopentane	ND	ND	0.94	2.77	72.15	1	0.34
Isopropylbenzene(Cumene)	ND	ND	0.94	4.62	120.19	1	0.20
m/p -Xylenes	ND	ND	0.94	4.08	106.17	1	0.23
Methyl-tert-butylether	ND	ND	0.94	3.39	88.15	1	0.28
Naphthalene	ND	ND	0.94	4.93	128.17	1	0.19
Nonane	ND	ND	0.94	4.93	128.26	1	0.19
Octane	ND	ND	0.94	4.39	114.23	1	0.21
o-Xylene	ND	ND	0.94	4.08	106.17	1	0.23
P-Iso-Propyl Toluene	ND	ND	0.94	5.16	134.22	1	0.18
Toluene	ND	ND	0.94	3.54	92.14	1	0.27
Toluene-D8	ND	ND	0.94	3.85	100.19	1	0.24
Undecane	ND	ND	0.94	6.01	156.31	1	0.16



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EXTRA COMPOUNDS

1,1,1,2-tetrachloroethane	ND	ND	0.091	0.6247	167.85	1	0.15
1,2-Dibromo-3-chloropropane	ND	ND	0.065	0.6283	236.33	1	0.10
1,3-Dichloropropane	ND	ND	0.135	0.6238	112.99	1	0.22
1-Methylnaphthalene	ND	ND	0.107	0.6223	142.20	1	0.17
2,2,4-Trimethylpentane	ND	ND	0.134	0.6260	114.23	1	0.21
2-Methylnaphthalene	ND	ND	0.107	0.6223	142.20	1	0.17
Acrylonitrile	ND	ND	0.288	0.6250	53.06	1	0.46
Butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Cumene	ND	ND	0.127	0.6243	120.19	1	0.20
Hexylcyclohexane	ND	ND	0.091	0.6265	168.32	1	0.15
Indane	ND	ND	0.129	0.6235	118.18	1	0.21
Indene	ND	ND	0.132	0.6271	116.16	1	0.21
Methyl Acetate	ND	ND	0.206	0.6241	74.08	1	0.33
Methylcyclohexane	ND	ND	0.156	0.6265	98.19	1	0.25
Naphthalene	ND	ND	0.119	0.6238	128.17	1	0.19
P-cymene	ND	ND	0.114	0.6258	134.22	1	0.18
Propylbenzene	ND	ND	0.127	0.6243	120.19	1	0.20
Sec-butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Tert-butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Thiophene	ND	ND	0.182	0.6263	84.14	1	0.29

OTHER COMPOUNDS

2-Chloro-pyridine	ND	ND	0.20	0.93	113.54	1	0.22
2,6-Dichloro-pyridine	ND	ND	0.20	1.19	144.97	1	0.17
tert-Butyl Alcohol	ND	ND	0.20	0.61	74.10	1	0.33