



January 30, 2012

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
Fourth Quarter, 2011
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 E&I, Inc. (formerly MACTEC Engineering and Consulting, Inc.) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (the Site). The reporting period is from October 2011 through December 2011 and includes one quarterly compliance sampling event (December 8, 2011).

The sampling and analysis and this reporting were 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 December 8, 2011.

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 (11L0398) associated with the December 8, 2011 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 at an upwind location during the sampling round. 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 are in compliance with action levels for the quarterly sampling event in two of the small retail spaces (sample locations IA-6 and IA-7). The detections of tetrachloroethylene (PCE) and 1,1,2,2-tetrachloroethane were slightly above the action level at the eastern small retail space (sample location IA-5). The result for PCE in IA-5 seems to be an anomaly not related to conditions in the subsurface nor ambient air. The concentration from IA-5 is at 5.7 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) which is above the target of $5 \mu\text{g}/\text{m}^3$, but the soil gas concentration in the corresponding vapor extraction well EW-5 was at $3.5 \mu\text{g}/\text{m}^3$, which is lower than the concentration in the indoor air sample. The vacuum monitoring points measurements indicate that there was vacuum at all points near the retail space suggesting that systems in the small retail spaces were operating effectively. There was PCE detected in the outdoor sample (sample location AA-1) at a concentration of $0.73 \mu\text{g}/\text{m}^3$. As expected, therefore, PCE were also detected in all of the indoor air samples from the small retail spaces. The outdoor background concentrations appear to be responsible for most of the detections of PCE in the indoor air samples. However, the outdoor air concentration does not explain the $5.7 \mu\text{g}/\text{m}^3$ concentration in

air sample IA-5. The detection of 1,1,2,2-tetrachloroethane in sample IA-5 at 0.16 $\mu\text{g}/\text{m}^3$ which is above the target of 0.14 $\mu\text{g}/\text{m}^3$ also seems to be unrelated to the subsurface conditions and vapor intrusion. This compound was not detected in any of the vapor extraction well samples nor in any of the other indoor air samples collected from the other two small retail spaces. Given the circumstances, the detected concentrations of PCE and 1,1,2,2-tetrachloroethane do not warrant any action at this time. The space will be evaluated again upon completion of the next quarterly monitoring event scheduled for March, 2012.

- The eastern small retail space (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 December 8, 2011. 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 (11L0398) associated with the December 8, 2011 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 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 December 2011 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.

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Fourth Quarter, 2011

ASD System Monitoring

The ASD system performance is monitored monthly by Clean Harbors Environmental Services. There were no mitigation system shutdowns reported during the reporting period.

Next Reporting Period

The next quarterly report (first quarter 2012) will include monitoring from January 2012 through March 2012. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDE) in April 2012.

Please contact the undersigned at 781-245-6606 if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
AMEC E&I, Inc.

Amelia Awasthi
for Mark Maggiore
Environmental Scientist with permission

m Murphy
Michael Murphy
Principal Scientist

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: T. Deller, City of Providence
G. Simpson, Textron, Inc. (Electronic)
Knight Memorial Library Repository
G. Wilson, Kimco Realty Corporation (including tenants)
J. Morgan, The Stop & Shop Supermarket Co., LLC
AMEC Project File

[P:\3650080114 - Textron Gorham Vapor Mitigation System\4.0 Project Deliverables\4.1 Reports\Q4 2011 report\QTR4_2011 RPT.doc]

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Fourth Quarter, 2011

TABLES

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

Parameter (ug/m³)	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
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				
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				
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				
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
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
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				
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
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				
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
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
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				
1,2-Dichlortetrafluoroethane	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				
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				
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				
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
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
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	0.84
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
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				
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
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6
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
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				
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				
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				
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				
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				
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
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				
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
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				
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
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
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				
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				
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				
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
Ethanol	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6
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
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
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
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
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
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

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
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
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
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
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
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
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
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
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
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
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
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
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
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1
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
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
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

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																	
	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	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	
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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29		
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		
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	0.16 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	0.063		
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	0.12 U		
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.75 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	0.62		
1,2,4-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	0.16		
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		
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	0.3 U	0.34		
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	0.2 U	0.066		
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		
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	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	0.068		
1,3-Butadiene	0.23 U	0.23 U	0.11 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	0.29	0.11 U	0.11 U	0.11 U	0.066 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	0.3 U	0.18 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	0.3 U	0.18 U		
1,4-Dioxane																		
2-Butanone	1.2	1.2	2	0.81	1.6	1.6	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	
2-Hexanone	0.33	0.23	0.2 U	0.2 U	0.32	0.2 U	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	
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	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34	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
Acetone	5.4	17	11	3.5	7.6	5	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	
Benzene	0.25	0.2	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4	
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		
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	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.2 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	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 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		
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.28	0.16 U	0.16 U	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	0.058		
Carbon tetrachloride	0.43	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48		
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	0.23 U	0.14 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	0.13 U	0.079 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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094		
Chloromethane	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U	
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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12	
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	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.1 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	0.43 U	0.26 U		
Dichlorodifluoromethane	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	
Ethanol	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5	
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	0.18 U	0.18 U	0.46	
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	0.22 U	0.22 U	0.22 U	0.22 U	1.1	0.22 U	0.22 U	0.31		
Hexachlorobutadiene	0.53 U	0.53 U	1.1 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	
Hexane	0.45	4.5	0.62	0.36	0.53	0.91	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	
Isopropyl alcohol	0.63	0.25 U	0.54	0.56	2.7	1.5	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	
m,p-Xylene	0.43 U	0.43 U	0.43 U	0.43 U	0.5	0.47	0.43 U	0.49	0.43 U	0.43 U	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.41	

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																
	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	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
Methyl methacrylate																	
Methylene chloride	0.7 U	23	4.6	1.3	1.9	1.7	0.7 U	0.7 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	
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	0.11 U		
n-Heptane	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	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12	
o-Xylene	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	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	
Propylene (Propene)	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	
Tetrachloroethene	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	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	
Tetrahydrofuran	1.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	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	0.057	
Toluene	0.61	0.5	0.78	0.94	0.64	0.97	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 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	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U		
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3	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	
Trichlorofluoromethane	1.2	1.5	2.2	1.2	1.2	1.6	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.7	
Trichlorotrifluoroethane	0.45	0.46	0.54	0.49	0.55	0.54	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	
Vinyl acetate	0.71 U	0.71 U	0.36 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	
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	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 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
1,1,2,2-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	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	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	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	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	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	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	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	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-Dichlortetrafluoroethane	7 U	7 U	7 U	7 U	1.8 U	70 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	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	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	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	2.7	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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 9/17/2009	EW-5-032610 12/29/2009	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	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 ($\mu\text{g}/\text{m}^3$)	Extraction Well - Center Small Retail Space																
	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	EW-6-021711 2/17/2011	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011
1,1,1-Trichloroethane	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130 D	0.55 UD	80	230	33
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 UD	6.9 U	14 U	3.4 U	
1,1,2-Trichloroethane	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	5.4 U	0.55 UD	0.55 UD	5.5 U	11 U	2.7 U	
1,1-Dichloroethane	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21 D	0.4 UD	12	27	6.4
1,1-Dichloroethene	850	210	100	110	55	74	87	83	80	6.4	3.5	4 U	0.4 UD	0.4 UD	4 U	7.9 U	2 U
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	7.5 U	3.7 U	7.4 U	0.74 UD	0.74 UD	7.4 U	30 U	7.4 U	
1,2,4-Trimethylbenzene	5 U	5 U	5 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	
1,2-Dibromoethane (EDB)	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	7.6 U	0.77 UD	0.77 UD	7.7 U	15 U	3.8 U	
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	
1,2-Dichloroethane	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.4 UD	0.4 UD	4 U	8.1 U	2 U	
1,2-Dichloropropane	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	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 U	2.3 U	
1,2-Dichlortetrafluoroethane	7 U	7 U	7 U	7 U	7 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U						
1,3,5-Trimethylbenzene	5 U	5 U	5 U	7.3	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	
1,3-Butadiene	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	2.2 U	0.22 UD	0.22 UD	2.2 U	4.4 U	1.1 U	
1,3-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	
1,4-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	
1,4-Dioxane																7.2 U	
2-Butanone	120	280	300	130	97	160	37	65	8.7	23	1800	110	20 D	1.9 BD	59 U	240 U	13
2-Hexanone	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	0.41 UD	82 U	8.2 U	2 U	
4-Ethyltoluene	5 U	5 U	5 U	5 U	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	
4-Methyl-2-pentanone	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	0.41 UD	4.1 U	8.2 U	2 U	
Acetone	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD	15 BD	48 U	190 U	21
Benzene	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	3.2 U	0.92 D	1.1 D	3.2 U	6.4 U	1.6 U	
Benzyl chloride	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	5.2 U	0.52 UD	0.52 UD	5.2 U	10 U	2.6 U	
Bromodichlormethane	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	6.6 U	0.67 UD	0.67 UD	6.7 U	13 U	3.4 U	
Bromoform	11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	1 UD	1 UD	10 U	21 U	5.2 U	
Bromomethane	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	3.8 U	0.39 UD	0.39 UD	3.9 U	7.8 U	1.9 U	
Carbon disulfide	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	0.31 UD	11 D	62 U	7.1
Carbon tetrachloride	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	6.2 U	0.63 UD	0.63 UD	6.3 UD	13 U	3.1 U	
Chlorobenzene	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	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 U	2.3 U	
Chloroethane	140	50	34	18	13	26 U	13	14	4	1.3 U	2.8	0.26 UD	0.26 UD	2.6 UD	5.3 U	1.3 U	
Chloroform	42	24	19	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4 D	0.49 UD	4.9 U	9.8 U	1
Chloromethane	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	38	40	0.21 UD	1 D	16 D	45	2.9
cis-1,2-Dichloroethene	700	360	220	250	150	120	190	170	130	36	11	7.9	2.3 D	0.4 UD	4 UD	7.9 U	0.83
cis-1,3-Dichloropropene	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	4.4 U	0.45 UD	0.45 UD	4.5 UD	9.1 U	2.3 U	
Cyclohexane	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	3.4 U	0.34 UD	3.4 UD	6.9 U	1.7 U		
Dibromochlormethane	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	8.6 U	0.85 UD	0.85 UD	8.5 UD	17 U	4.3 U	
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	50 U	3.6	3.9	2.7	2.5 U	5 U	2.3 D	3.6 D	4.9 UD	9.9 U	3	
Ethanol	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D	11 D	38 UD	150 U	38 U
Ethyl acetate	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	3.6 UD	7.2 U	1.8 U	
Ethylbenzene	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	4.4 U	0.43 UD	4.3 UD	8.7 U	2.2 U		
Hexachlorobutadiene	22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	11 U	1.1 UD	1.1 UD	11 UD	21 U	5.3 U	
Hexane	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	7.1 U	0.7 UD	1.3 D	3.5 UD	280 U	70 U	
Isopropyl alcohol	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 UD	2.9 D	25 UD	200 U	49 U
m,p-Xylene	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	120	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.87 UD	0.94 D	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 - Center Small Retail Space																	
	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	EW-6-021711 2/17/2011	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	
Methyl methacrylate															0.41 UD	4.1 UD	8.2 U	2 U
Methylene chloride	7 U	7 U	7.5	7 U	7 U	780	12	15	7 U	27	10	7 U	1.3 D	2.8 D	6.9 UD	69 U	3.6	
Methyl-t-butyl ether	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	3.6 U	0.36 UD	0.36 UD	3.6 UD	7.2 U	1.8 U		
n-Heptane	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	0.41 UD	4.1 UD	8.2 U	2 U	
o-Xylene	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	4.4 U	0.43 UD	0.43 UD	4.3 UD	8.7 U	2.2 U		
Propylene (Propene)	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	1.7 UD	17 UD	140 U	3.8	
Styrene	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	4.2 U	0.43 UD	0.43 UD	4.3 UD	8.5 U	2.1 U		
Tetrachloroethene	330	290	130	290	190	300	190	210	250	68	34	23	8.1 D	1.2 D	6.8 UD	17	2.4	
Tetrahydrofuran	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480 D	0.29 UD	13000 D	32000	3900	
Toluene	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	3.8 U	0.38 UD	2.4 D	3.8 UD	9.8	1.9 U		
trans-1,2-Dichloroethene	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	0.4 UD	4 UD	7.9 U	2 U	
trans-1,3-Dichloropropene	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	4.4 U	0.45 UD	0.45 UD	4.5 UD	9.1 U	2.3 U		
Trichloroethene	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250 D	0.54 UD	190 D	390	66	
Trichlorotrifluoroethane	2300	870	630	350	250	150	230	440	700	320	6.7	25	28 D	1.7 D	11 D	34	11	
Vinyl acetate	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	0.35 UD	70 UD	7.0 U	1.8 U	
Vinyl chloride	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	0.26 UD	2.6 UD	5.1 U	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 - Western Small Retail Space																		
	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	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	
1,1,1-Trichloroethane	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250	290	160 D	110 D	5.5 UD	110	66	
1,1,2,2-Tetrachloroethane	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	0.68 U	0.68 U	0.69 UD	0.69 UD	6.9 UD	1.4 U	0.69 U			
1,1,2-Trichloroethane	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	0.54 U	0.54 U	0.55 UD	0.55 UD	5.5 UD	1.1 U	0.55 U			
1,1-Dichloroethane	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220 D	150 D	45 D	150	80	
1,1-Dichloroethene	14	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63 D	0.4 UD	4 UD	0.79 U	0.13	
1,2,4-Trichlorobenzene	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 UD	0.74 UD	7.4 UD	3.0 U	1.5 U		
1,2,4-Trimethylbenzene	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	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.32		
1,2-Dibromoethane (EDB)	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	0.76 U	0.76 U	0.76 UD	0.77 UD	0.77 UD	7.7 UD	1.5 U	0.77 U		
1,2-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 UD	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U		
1,2-Dichloroethane	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 UD	0.4 UD	0.4 UD	4 UD	0.81 U	0.4 U		
1,2-Dichloropropane	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	0.46 U	0.46 U	0.46 UD	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U		
1,2-Dichlortetrafluoroethane	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	0.7 U	0.7 U	0.7 U							
1,3,5-Trimethylbenzene	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U		
1,3-Butadiene	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U	0.22 U	0.22 UD	0.22 UD	0.22 UD	2.2 UD	0.44 U	0.22 U	
1,3-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 UD	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U		
1,4-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 UD	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U		
1,4-Dioxane																	0.72 U		
2-Butanone	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1 D	5.3 BD	59 UD	24 U	6.2	
2-Hexanone	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 UD	0.41 UD	82 UD	0.82 U	0.14		
4-Ethyltoluene	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U		
4-Methyl-2-pentanone	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 UD	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.13		
Acetone	580	38	58	30	24	15	24	24	7.9	49	26	25	12	42 BD	35 BD	48 UD	23	12	
Benzene	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	2.1	1.4 D	1.6 D	3.2 UD	2.5	1.6	
Benzyl chloride	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	0.52 U	0.52 U	0.52 UD	0.52 UD	0.52 UD	5.2 UD	1.0 U	0.52 U		
Bromodichloromethane	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	0.66 U	0.66 U	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 U	0.67 U		
Bromoform	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	1.1 U	1.1 UD	1.1 UD	10 UD	2.1 U	1 U	
Bromomethane	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	0.38 U	0.38 U	0.38 UD	0.39 UD	0.39 UD	3.9 UD	0.78 U	0.39 U		
Carbon disulfide	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	0.9	0.78 D	0.31 UD	3.1 UD	6.2 U	3.1 U	
Carbon tetrachloride	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	0.62 U	0.62 U	0.62 UD	0.63 UD	0.63 UD	6.3 UD	1.3 U	0.34		
Chlorobenzene	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	0.46 U	0.46 U	0.46 UD	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U		
Chloroethane	170	150	88	41	33	7.1	9.6	10	8.1	6.5	1.6	2.2	3.6	2 D	0.26 UD	2.6 UD	1.9	0.26 U	
Chloroform	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	4.4	3.9 D	3 D	4.9 UD	5	3.8	
Chloromethane	2 U	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 UD	0.21 UD	0.21 UD	2.1 UD	0.41 U	0.21 U		
cis-1,2-Dichloroethene	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350 D	250 D	65 D	210	99	
cis-1,3-Dichloropropene	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	0.45 UD	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U		
Cyclohexane	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.41	0.34 UD	0.34 UD	3.4 UD	0.69 U	0.34 U		
Dibromochloromethane	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	0.86 U	0.86 U	0.86 UD	0.85 UD	0.85 UD	8.5 UD	1.7 U	0.85 U		
Dichlorodifluoromethane	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	1.5	2.1 D	0.49 UD	4.9 UD	2.7	2.6	
Ethanol	350	26	29	17	15	3.8 U	19	18	12	18	37	31	1.9 U	1.9 UD	18 D	38 UD	22	23	
Ethyl acetate	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	0.36 U	0.36 U	0.36 UD	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U		
Ethylbenzene	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	0.57	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.26		
Hexachlorobutadiene	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 UD	11 UD	2.1 U	1.1 U		
Hexane	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	0.71 U	0.87 D	0.35 UD	3.5 UD	28 U	14 U	
Isopropyl alcohol	210	18	21	12	8.5	5 U	12	17	2.5 U	2.5 U	80	2.2	2.6	2.8 D	0.25 UD	25 UD	30	9.8 U	
m,p-Xylene	8.6 U	1.8 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	1	0.87 UD	0.87 UD	8.7 UD	1.7 U	0.82		

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-7-020309 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	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	
Methyl methacrylate																0.41 UD	4.1 UD	0.82 U	0.41 U
Methylene chloride	9.3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9 D	2.4 D	6.9 UD	6.9 U	1.5	
Methyl-t-butyl ether	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	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U		
n-Heptane	4 U	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.22		
o-Xylene	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	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.38	
Propylene (Propene)	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	0.69 U	0.69 UD	1.7 UD	17 UD	14 U	6.9 U	
Styrene	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	0.47	0.43 UD	0.43 UD	4.3 UD	0.85 U	0.49	
Tetrachloroethene	66	69	56	84	69	40	140	230	410	130	74	510	610	190 D	110 D	120 D	450	170	
Tetrahydrofuran	41	23	12	14	7.5	3 U	5.6	15	4.1	1.5 U	2800	0.7	18	6.1 D	2.7 D	3900 D	7.9	9.9	
Toluene	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	2.2	0.47 D	0.88 D	3.8 UD	1.9	1.1	
trans-1,2-Dichloroethene	150	140	90	90	80	48	120	140	150	84	22	120	110	78 D	58 D	4 UD	82	54	
trans-1,3-Dichloropropene	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	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U			
Trichloroethene	230	210	180	180	200	110	330	420	920	420	190	690	730	440 D	310 D	260 D	680	310	
Trichlorofluoromethane	1800	1400	900	690	640	190	310	660	1400	620	210	690	700	530 D	740 D	330 D	2500	1000	
Trichlorotrifluoroethane	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	0.76 U	0.89 D	0.77 UD	7.7 UD	1.5 U	1	
Vinyl acetate	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	0.71 U	0.7 UD	0.35 UD	70 UD	0.70 U	0.35 U	
Vinyl chloride	280	370	180	48	21	2.6 U	2.7	3.2	1.3 U	1.6	1	0.26 U	1.6	0.41 D	0.26 UD	2.6 UD	0.51 U	0.26 U	

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

Parameter ($\mu\text{g}/\text{m}^3$)	CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	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
1,1,1-Trichloroethane	500	48	0.92	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	
1,1,2,2-Tetrachloroethane	0.14	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	12	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	430	1.8	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	20	0.58	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	NA	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	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	
1,2-Dibromoethane (EDB)	0.038	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	410	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	0.31	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	0.42	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-Dichlortetrafluoroethane	NA	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	52	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	
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	
1,3-Dichlorobenzene	410	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	24	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-Dioxane	NA														
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
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
4-Ethyltoluene	NA	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
4-Methyl-2-pentanone	200	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	0.2 U	1.1
Acetone	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17
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
Benzyl chloride	NA	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
Bromodichloromethane	0.46	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
Bromoform	7.3	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
Bromomethane	NA	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
Carbon disulfide	NA	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
Carbon tetrachloride	0.54	0.33	0.44	0.5	0.55 [a]	0.47	0.64 [a]	0.44	0.64 [a]	0.46	0.39	0.41	0.48	0.53	0.44
Chlorobenzene	200	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
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
Chloroform	0.5	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
Chloromethane	80	1.1	1	1.5	1.4	1.1	1.1	1	1.4	1	2	1.2	1	1	1
cis-1,2-Dichloroethene	100	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
cis-1,3-Dichloropropene	2.9	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
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	0.17 U	0.45
Dibromochloromethane	NA	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
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
Ethanol	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150
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
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
Hexachlorobutadiene	NA	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
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
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
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

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
Methyl methacrylate	NA														
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
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
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	0.21
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
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
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
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
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
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
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
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
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
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
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
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
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

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

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Center Small Retail Space																	
	IA-5-120810 12/8/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	IA-5-091511 9/15/2011	IA-5-120811 12/8/2011	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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.15	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
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.16	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
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.14	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
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.20 U	0.12 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
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.12 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
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.74 U	22	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
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	1.3	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
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.23 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
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	23	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
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.20 U	0.066	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
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
1,2-Dichlortetrafluoroethane						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
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.39	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
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.066 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
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	0.076	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
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.30 U	0.37	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
1,4-Dioxane	0.18 U					0.18 U												
2-Butanone	0.78	0.78 B	3.6	5.9 U	0.98	120	10	3.2	2.9	2.4	2.3	1	2.5	4.1	2.4	1.8	1.4	1.1
2-Hexanone	0.2 U	0.2 U	4.1 U	0.20 U	0.13	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
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25	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
4-Methyl-2-pentanone	0.2 U	0.2 U	0.31	0.20 U	0.13	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
Acetone	6.4 B	9.5 B	24 B	15	6.6	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14
Benzene	0.26	1.1	0.33	0.29	0.38	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
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.16 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
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.34 U	0.2 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
Bromoform	0.52 U	0.52 U	0.52 U	0.52 U	0.31 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
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.12 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
Carbon disulfide	0.16 U	0.16 U	0.16 U	1.6 U	0.93 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
Carbon tetrachloride	0.54	0.6	0.59	0.48	0.49	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
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.48	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
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.079 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
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.49	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
Chloromethane	0.76	0.96	1.1	1.3	1	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	1.9	0.97	1.8	1.4	1
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 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
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
Cyclohexane	0.17 U	0.17 U	0.46	0.17 U	0.1 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
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.26 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
Dichlorodifluoromethane	2.3	3.1	1.7	2	2.6	2	2.1	2.6	2.8	2.6	2.6	2	2.7	2.5	2.2	1.9	1.6	2.4
Ethanol	2.4	14	7.7	7.9	5.4	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	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
Ethylbenzene	0.22 U	0.3	0.36	0.22 U	1.2	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
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.17	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
Hexane	0.3	1.3	1.7	7.0 U	0.36	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
Isopropyl alcohol	0.12 U	1.7	1.2 U	6.4	2.9 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
m,p-Xylene	0.43 U	0.85	0.57	0.53	3	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

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																	
	IA-5-120810 12/8/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	IA-5-091511 9/15/2011	IA-5-120811 12/8/2011	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
Methyl methacrylate	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U													
Methylene chloride	0.65	2.8	4.2	7.7	1.6	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
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.039	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	0.33	0.2 U	0.20 U	0.081	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	0.2 U
o-Xylene	0.22 U	0.3	0.26	0.22 U	1	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
Propylene (Propene)	0.86 U	0.86 U	0.86 U	3.4 U	2.1 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	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	1	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
Tetrachloroethene	0.39	2.4	0.34 U	0.58	5.7	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
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.1	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
Toluene	0.19 U	1.8	0.9	0.97	1.9	1.8	1.3	2.5	11	0.65	0.71	1.3	0.81	2	1.1	0.49	1.6	1.7
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.12 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
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.63	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
Trichlorofluoromethane	1.3	1.7	1.4	1.7	1.1	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
Trichlorotrifluoroethane	0.52	0.66	0.69	0.63	0.69	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
Vinyl acetate	0.43	0.18 U	3.5 U	0.18 U	0.11 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
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.077 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

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-6-091610 9/16/2010	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-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	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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.085	44	2.4	0.4	1.3	0.27 U	0.27 U	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 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	0.16 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
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	1.3	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
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.52	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
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 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	0.75 U
1,2,4-Trimethylbenzene	0.33	0.25 U	0.35	0.25 U	0.25	0.16	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 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
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.056	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
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
1,2-Dichlortetrafluoroethane	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
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.059	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
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,4-Dioxane						0.18 U												
2-Butanone	0.89	0.87	1.9 B	2.9 U	5.9 U	1.3	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2	0.49	2.1
2-Hexanone	0.2 U	0.2 U	0.22	4.1 U	0.6	0.15	0.2 U	0.29	0.2 U	0.91	0.2 U	0.2 U	0.14 U	0.53	1.5	0.53	0.2 U	0.2 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.4	0.2 U	0.2 U	0.28	0.31	0.13	0.2 U	0.2 U	0.2 U	0.42	0.2 U	0.2 U	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U
Acetone	13	11 B	14 B	19 B	26	10	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12
Benzene	0.6	0.44	1.3	0.29	0.31	0.42	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43	0.52	0.53
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 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
Bromodichloromethane	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 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
Bromoform	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 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
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 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
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U
Carbon tetrachloride	0.44	0.46	0.57	0.64	0.52	0.46	0.32	0.44	0.52	0.56 [a]	0.48	0.6 [a]	0.43	0.65 [a]	0.43	0.42	0.44	0.43
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 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	0.36	0.24 U	0.24 U	0.24 U	0.24 U	0.1	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
Chloromethane	1.1	0.95	0.92	1.1	1.4	1.3	1.7	0.98	1.4	1.5	1	1.2	1.1	0.93	1.8	1.2	2.1	1.2
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.098	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
Cyclohexane	0.17 U	0.17 U	0.17 U	0.29	0.17 U	0.1 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.17 U	0.12 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	0.26 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
Dichlorodifluoromethane	1.6	1.9	3.1	1.8	1.9	2.9	2.1	2.2	2.6	2.7	2.6	2.6	2	2.4	2.7	2.3	2.1	1.8
Ethanol	36	5.9	10	7.7	14	24	7.3	16	11	26	7.9	8.4	7.1	11	14	11	10	13
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.48	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U
Ethylbenzene	0.43	0.22 U	0.45	0.22 U	0.22 U	0.15	0.23	0.29	0.36	0.95	0.24	0.22 U	0.16 U	0.22 U	0.25	0.32	0.68	0.32
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 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
Hexane	0.69	0.39	1.5	0.41	7.0 U	0.41	0.9	0.87	0.91	2	1.1	0.6	0.69	0.33	1.5	0.88	0.25	0.33
Isopropyl alcohol	3.2	1.1	2.8	1.2 U	11	2.9 U	3.7	6.2	3.6	8.3	0.25 U	2.7	0.18 U	7	14	4	1.9	18
m,p-Xylene	1.1	0.43 U	1.2	0.48	0.59	0.45	0.61	0.82	0.94	2.8	0.73	0.43 U	0.31 U	0.43 U	0.72	0.86	2.8	0.82

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-6-091610 9/16/2010	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-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	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
Methyl methacrylate		0.2 U	0.2 U	0.2 U	0.20 U	0.12 U												
Methylene chloride	0.64	0.94	3	1	1.7 U	1.5	1.9	5.7	0.92	1.5	6.3	1.4	4.2	2.3	5.7	0.7 U	2.9	0.7 U
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 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	
n-Heptane	0.47	0.2 U	0.35	0.2 U	0.2	0.11	0.2	0.2 U	0.37	1.2	0.2 U	0.2 U	0.17	0.2 U	0.34	0.37	0.2 U	0.29
o-Xylene	0.42	0.22 U	0.4	0.22 U	0.22	0.17	0.24	0.31	0.39	0.97	0.24	0.22 U	0.16 U	0.22 U	0.25	0.31	0.6	0.28
Propylene (Propene)	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 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	0.09 U	0.35 U	0.35 U	
Styrene	0.29	0.21 U	0.21 U	0.27	0.22	0.13	0.21 U	0.21 U	0.21 U	0.26	0.21 U	0.21 U	0.15 U	0.21 U	0.29	0.39	0.21 U	0.26
Tetrachloroethene	0.34 U	0.34 U	1.6	0.34 U	0.58	0.68	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U	0.48	0.34 U	0.34 U	0.34 U	1	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15	0.12	45	2.1	0.74	0.43	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.51	0.15 U	0.15 U
Toluene	2.6	0.4	2.9	0.93	1.2	1.2	1.5	1.6	2.7	7.5	1.5	0.76	0.48	0.61	2.3	4	0.57	7.2
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 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
trans-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
Trichloroethene	0.3	0.27 U	0.27 U	0.27 U	0.27 U	0.19	4.6	1.1	0.28	0.58	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.27 U	0.4	0.27 U
Trichlorofluoromethane	3.1	1.1	1.6	1.1	1.7	1.4	4.7	1.4	1.7	3.1	1.6	1.7	1.3	1.1	1.9	1.3	1.7	1.3
Trichlorotrifluoroethane	0.42	0.52	0.69	0.67	0.56	0.68	0.62	0.57	0.47	0.44	0.66	0.45	0.54	0.69	0.57	0.51	0.54	0.64
Vinyl acetate	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 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
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 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

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-7-070110 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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U
1,2,4-Trimethylbenzene	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.07
1,2-Dichloropropane	0.3	0.23 U	0.23 U	0.23 U	0.63	0.23 U	0.14 U
1,2-Dichlorotetrafluoroethane	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	0.1
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U
1,4-Dioxane						0.18 U	
2-Butanone	4.3	1.8	0.42	1.7 B	4.7	5.9 U	2.1
2-Hexanone	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73	0.12 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074
4-Methyl-2-pentanone	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15
Acetone	41	27	12 B	15 B	48 B	38	17
Benzene	0.27	0.56	0.45	1.1	0.41	0.34	0.44
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U
Bromodichloromethane	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U
Bromoform	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 U	0.93 U
Carbon tetrachloride	0.5	0.47	0.45	0.56	0.69	0.5	0.45
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U
Chloroform	0.24 U	0.38	0.24 U	0.24 U	0.24 U	0.34	0.12
Chloromethane	1.3	1.4	0.99	1	1.6	1.6	1.3
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.064
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U
Dichlorodifluoromethane	2.7	1.7	2	3.1	2.5	1.8	2.8
Ethanol	39	240	13	14	28	76	60
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21	1.8
Ethylbenzene	0.45	0.45	0.22 U	0.22 U	0.68	0.45	0.24
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U
Hexane	0.7	0.64	0.5	1.3	0.58	7.0 U	3.9
Isopropyl alcohol	5.8	28	2.8	11	1.2 U	77	2.9 U
m,p-Xylene	1.2	1.2	0.43 U	0.43 J	1.5	1.1	0.72

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-7-070110 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
Methyl methacrylate			0.2 U	0.2 U	0.2 U	0.20 U	0.12 U
Methylene chloride	1.3	0.6	1.3	2.5	1.1	1.7 U	13
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U
n-Heptane	0.5	0.68	0.33	0.47	2	1.1	0.46
o-Xylene	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.3
Propylene (Propene)	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U
Styrene	0.7	0.39	0.21 U	0.21 U	0.97	0.63	0.18
Tetrachloroethene	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18	0.088 U
Toluene	8.4	3.5	0.48	1.6	6.6	3.7	1.2
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Trichloroethene	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16
Trichlorofluoromethane	1.3	2.9	1.2	1.6	1.3	1.6	1.3
Trichlorotrifluoroethane	0.54	0.43	0.55	0.67	0.76	0.54	0.67
Vinyl acetate	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U

[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.

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

Prepared by / Date: EYM 1/13/12

Checked by / Date: MAM 1/13/12

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

	Pressure Differential (inches of water)		
Date	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

** ASD system offline.

Prepared by/Date: MAM 01/13/12

Checked by/Date: DGK 01/17/12

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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U						
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 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	0.19 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	0.14 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	0.2 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
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U						
1,2,4-Trimethylbenzene	0.25 U	0.28	0.52	1.8	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
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 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	0.21 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	0.2 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 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						
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.18 U	0.25 U						
1,3-Butadiene	0.11 U	0.11 U	0.17	1.3	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
1,3-Dichlorobenzene	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	0.3 U	0.3 U	0.3 U	0.53	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	0.58	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
2-Hexanone	0.2 U	0.22	0.57	0.35	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
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.18 U	0.25 U						
4-Methyl-2-pentanone	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4
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
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U						
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U						
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U						
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 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					
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
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 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
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 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
cis-1,2-Dichloroethene	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
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U						
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.12 U	0.17 U						
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 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	2.1
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
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				

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
Ethylbenzene	0.22 U	0.25	0.52	2	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	
Hexachlorobutadiene	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	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
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
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
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
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						
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
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
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
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						
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
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	1.2	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
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
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						
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						
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
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
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
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

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

Parameter (ug/m³)	Outdoor Air Reference Locations														
	AA-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010	AA-1-021210 2/12/2010	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
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	0.27 U	0.27 U	0.27 U	0.27 U	0.29
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	0.21 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	0.16 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	0.063
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	0.12 U
1,2,4-Trichlorobenzene	0.75 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	0.74 U	0.62
1,2,4-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	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16
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	0.23 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	0.34
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	0.066
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	0.14 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	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068
1,3-Butadiene	0.11 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	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 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	0.18 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	0.18 U
1,4-Dioxane															0.18 U
2-Butanone	2	0.81	1.6	1.6	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
2-Hexanone	0.2 U	0.2 U	0.32	0.2 U	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
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	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.34	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
Acetone	11	3.5	7.6	5.0	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9
Benzene	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4
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	0.16 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	0.2 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
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	0.12 U
Carbon disulfide	0.16 U	0.28	0.16 U	0.16 U	0.44	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	0.058
Carbon tetrachloride	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49
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
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
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	0.24 U	0.24 U	0.24 U	0.24 U	0.094
Chloromethane	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U
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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12
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
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	0.17 U	0.17 U	0.17 U	0.17 U	0.1 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
Dichlorodifluoromethane	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5
Ethanol	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	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

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-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010	AA-1-021210 2/12/2010	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
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	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31
Hexachlorobutadiene	1.1 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
Hexane	0.62	0.36	0.53	0.91	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47
Isopropyl alcohol	0.54	0.56	2.7	1.5	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
m,p-Xylene	0.43 U	0.43 U	0.50	0.47	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
Methyl methacrylate											0.2 U	0.48	0.2 U	0.20 U	0.12 U
Methylene chloride	4.6	1.3	1.9	1.7	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
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	0.11 U
n-Heptane	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	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22
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	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 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	0.21 U	0.21 U	0.21 U	0.21 U	0.37
Tetrachloroethene	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	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	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
Toluene	0.78	0.94	0.64	0.97	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56
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	0.20 U	0.12 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
Trichloroethene	0.27 U	0.27 U	0.27 U	0.30	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
Trichlorofluoromethane	2.2	1.2	1.2	1.6	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7
Trichlorotrifluoroethane	0.54	0.49	0.55	0.54	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89
Vinyl acetate	0.36 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
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	0.13 U	0.13 U	0.13 U	0.13 U	0.077 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-COMBINED-021109 2/11/2009	EW-COMBINED-021809 2/18/2009	EW-COMBINED-022609 2/26/2009	EW-COMBINED-041409 4/14/2009	EW-COMBINED-042409 4/24/2009	EW-COMBINED-091709 9/17/2009	EW-COMBINED-092409 9/24/2009	EW-COMBINED-100109 10/1/2009	EW-COMBINED-100809 10/8/2009	EW-COMBINED-012810 1/28/2010	EW-COMBINED-020510 2/5/2010	EW-COMBINED-021210 2/12/2010	EW-COMBINED-021910 2/19/2010	EW-COMBINED-021910 2/19/2010
1,1,1-Trichloroethane	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	
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	
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	
1,1-Dichloroethane	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310	
1,1-Dichloroethene	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
1,4-Dioxane															
2-Butanone	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
Chloroethane	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	
Chloroform	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	
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	
cis-1,2-Dichloroethene	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	
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	
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	
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	
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	
Ethanol	960	81	120	120	17	21	200	96	32	33	39	60	23	62	
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	

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- COMBINED 021109 2/11/2009	EW- COMBINED 021809 2/18/2009	EW- COMBINED 022609 2/26/2009	EW- COMBINED 041409 4/14/2009	EW- COMBINED 042409 4/24/2009	EW- COMBINED 091709 9/17/2009	EW- COMBINED 092409 9/24/2009	EW- COMBINED 100109 10/1/2009	EW- COMBINED 100809 10/8/2009	EW- COMBINED 012810 1/28/2010	EW- COMBINED 020510 2/5/2010	EW- COMBINED 021210 2/12/2010	EW- COMBINED 021910 2/19/2010
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
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
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
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
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
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
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
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
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
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
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
Tetrachloroethene	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45
Tetrahydrofuran	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43
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
trans-1,2-Dichloroethene	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1
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
Trichloroethene	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460
Trichlorofluoromethane	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230
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
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
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

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 043010 4/30/2010	EW-COMBINED 052810 5/28/2010	EW-COMBINED 070110 7/1/2010	EW-COMBINED 091610 9/16/2010	EW-COMBINED 120710 12/7/2010	EW-COMBINED 021711 2/17/2011	EW-COMBINED 091511 9/15/2011	EW-Combined- 120811 12/8/2011	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	1400	1700	2000	4700	280 D	2500 D	2400	340	59000	66000	26000	30000	54000	72000	11000	14000
1,1,2,2-Tetrachloroethane	0.68 U	6.8 U	0.68 U	0.68 U	0.69 UD	0.69 UD	1.4 U	0.69 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	0.54 U	5.4 U	0.54 U	0.55	0.55 UD	0.55 UD	1.1 U	0.55 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	200	270	290	330	36 D	170 D	200	70	4100	4400	5700	7000	1600	2300	690	1400
1,1-Dichloroethene	30	40	52	81	7.3 D	58 D	44	21	570	1200	330	640	340	560	97	210
1,2,4-Trichlorobenzene	0.74 U	7.4 U	0.74 U	0.74 U	0.74 UD	0.74 UD	3.0 U	1.5 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	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	1.2	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,2-Dibromoethane (EDB)	0.76 U	7.6 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 U	0.77 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	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,2-Dichloroethane	0.4 U	4 U	0.4 U	0.4 U	0.4 UD	0.4 UD	0.81 U	0.4 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
1,2-Dichloropropane	0.46 U	4.6 U	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 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	0.7 U	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	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	0.29	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,3-Butadiene	0.45 U	2.2 U	0.22 U	0.22 U	0.22 UD	0.22 UD	0.44 U	0.22 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	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,4-Dichlorobenzene	0.6 U	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 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	12.0	22.0	22.0	10.0	4.5 D	4.5 BD	24 U	1.3	3.5	8.9	12.0	11	36	10	36	6.4
2-Hexanone	0.4 U	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
4-Ethyltoluene	0.5 U	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	0.27	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
4-Methyl-2-pentanone	0.4 U	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
Acetone	16	24	16	6.6	11 BD	6.3 BD	19 U	6.6	35	16	9.6 U	9.6 U	53	24	26	12
Benzene	0.74	5.5	0.84	1.7	0.5 D	0.72 D	0.77	0.56	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U
Benzyl chloride	0.52 U	5.2 U	0.52 U	0.52 U	0.52 UD	0.52 UD	1.0 U	0.52 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	6.6 U	0.66 U	0.66 U	0.67 UD	0.67 UD	1.3 U	0.67 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	11 U	1.1 U	1.1 U	1 UD	1 UD	2.1 U	1 U	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U
Bromomethane	0.38 U	3.8 U	0.38 U	0.38 U	0.39 UD	0.39 UD	0.78 U	0.39 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	0.77	3.2 U	1.1	1.3	0.31 UD	0.73 D	6.2 U	3.1 U	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U
Carbon tetrachloride	0.62 U	6.2 U	0.73	1.1	0.63 UD	0.63 D	1.3 U	0.48	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	7.2	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 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	4.8	7.2	9.4	17	1 D	3.6 D	6.7	2.1	170	250	700	590	41	44	17	33
Chloroform	6	7.9	8	8.3	1.6 D	6.9 D	7.6	2.7	20	34	9.6	15	13	23	3.6	7.5
Chloromethane	0.2 U	2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	0.41 U	0.21 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U
cis-1,2-Dichloroethene	180	260	260	360	28 D	120 D	160	38	2000	2200	6100	7600	610	1200	560	1300
cis-1,3-Dichloropropene	0.44 U	4.4 U	0.44 U	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 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	0.34 U	3.4 U	0.34 U	0.55	0.34 UD	0.34 UD	0.69 U	0.34 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	8.6 U	0.86 U	0.86 U	0.85 UD	0.85 UD	1.7 U	0.85 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	1.7	5 U	2.5	1.6	3 D	4.1 D	2.9	2.9	5 U	170	5 U	5 U	5.4	7	2.6	5 U
Ethanol	10	19 U	15	1.9 U	8.2 D	17 D	15 U	9.2	33	40	12	8.3	39	1.8 U	8.6	1.8 U
Ethyl acetate	0.36 U	3.6 U	0.36 U	0.36 U	0.36 UD	0.36 UD	0.72 U	1.2	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U

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

Parameter (ug/m ³)	Extraction Well - Large Retail Space																
	EW-COMBINED 043010 4/30/2010	EW-COMBINED 052810 5/28/2010	EW-COMBINED 070110 7/1/2010	EW-COMBINED 091610 9/16/2010	EW-COMBINED 120710 12/7/2010	EW-COMBINED 021711 2/17/2011	EW-COMBINED 091511 9/15/2011	EW-Combined- 120811 12/8/2011	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	
Ethylbenzene	0.44 U	4.4 U	0.44 U	0.58	0.43 UD	0.43 UD	0.87 U	0.58	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	11 U	1.1 U	1.1 U	1.1 UD	1.1 UD	2.1 U	1.1 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U		
Hexane	0.92	3.6 U	0.44	0.71 U	0.7 UD	0.8 D	28 U	0.66	3.6 U	3.6 U	3.6 U	6.6	3.6 U	3.6 U	3.2	3.6 U	
Isopropyl alcohol	2.6	2.4 U	0.24 U	0.5 U	0.84 D	0.25 UD	20 U	9.8 U	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1	
m,p-Xylene	0.86 U	8.6 U	0.86 U	1.6	0.87 UD	0.87 JD	1.7 U	1.6	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								
Methylene chloride	1.4 U	7 U	2.1	0.9	0.78 D	2.9 D	6.9 U	2.2	7 U	19	7 U	17	7 U	13	19	12	
Methyl-t-butyl ether	0.36 U	3.6 U	0.36 U	0.36 U	0.36 UD	0.36 UD	0.72 U	0.24	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	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.23	4 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
o-Xylene	0.44 U	4.4 U	0.44 U	0.56	0.43 UD	0.43 UD	0.87 U	0.69	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	18 U	1.8 U	0.69 U	1.8 D	1.7 UD	14 U	6.9 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	4.2 U	0.42 U	0.42 U	0.43 UD	0.43 UD	0.85 U	0.21	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	450	1300	640	750	160 D	920 D	440	8.1	600	1200	2300	2500	73	310	31	170	
Tetrahydrofuran	34	54	65	31	11 D	11 D	21	0.27	6.3	21	19	3 U	32	14	37	5.1	
Toluene	0.75	3.8 U	0.41	3.5	0.38 D	1.4 D	0.75 U	2.5	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	3	4.6	5.5	6.6	0.6 D	1.9 D	3.5	1.1	9.2	23	69	180	4 U	8.8	2.5	8	
trans-1,3-Dichloropropene	0.44 U	4.4 U	0.44 U	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 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	1200	2000	1700	3200	240 D	1800 D	1900	97	31000	42000	25000	25000	8600	19000	2700	5500	
Trichlorofluoromethane	210	300	440	410	71 D	200 D	610	200	520	540	1300	1800	430	840	240	370	
Trichlorotrifluoroethane	0.76 U	7.6 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 U	0.89	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	1.5 U	3.6 U	0.36 U	0.71 U	0.7 UD	0.35 UD	0.70 U	0.35 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	0.26 U	2.6 U	0.26 U	0.4	0.26 UD	0.26 UD	0.51 U	0.26 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						
	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
1,1,1-Trichloroethane	1	15	45	1.9	13000	0.56	450
1,1,2,2-Tetrachloroethane	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	1 U	5.4	11000	490	370	610
1,1-Dichloroethene	0.2 U	1 U	0.4 U	6400	96	78	87
1,2,4-Trichlorobenzene	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U
1,2-Dichlortetrafluoroethane	0.35 U	1.8 U	0.7 U	0.7 U	70 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
1,3-Butadiene	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U
1,3-Dichlorobenzene	2.9	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,4-Dioxane							
2-Butanone	10	6.3	9.4	5.5	330	1.9	2.0
2-Hexanone	0.2 U	1 U	0.4 U	0.4 U	13000	0.27	0.34
4-Ethyltoluene	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
4-Methyl-2-pentanone	5	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
Acetone	1200	11	19	12	430	3.6	5.7
Benzene	1.3	0.8 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U
Benzyl chloride	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U
Bromodichloromethane	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U
Bromoform	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	0.8 U	4.1	27	250	0.16 U	0.20
Carbon tetrachloride	0.38	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U
Chlorobenzene	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U
Chloroethane	0.13 U	5100	1800	480	64	19	10
Chloroform	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	6.8
Chloromethane	0.59	0.5 U	0.2 U	0.2 U	23	0.1 U	0.1 U
cis-1,2-Dichloroethene	0.27	1 U	3.9	5200	820	230	570
cis-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Cyclohexane	0.93	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U
Dichlorodifluoromethane	0.76	4.1	3	2.4	50 U	1.7	1.9
Ethanol	740	36	25	9.8	110	0.38 U	2.8
Ethyl acetate	0.37 U	0.9 U	0.36 U	0.73 U	73 U	0.18 U	0.18 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						
	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
Ethylbenzene	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Hexachlorobutadiene	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U
Hexane	3	0.9 U	46	0.36 U	36 U	0.18 U	0.23
Isopropyl alcohol	450	2.9	3.1	47	290	0.25 U	1.4
m,p-Xylene	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U
Methyl methacrylate							
Methylene chloride	20	76	17	3	810	0.7 U	0.72
Methyl-t-butyl ether	0.18 U	0.9 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U
n-Heptane	1.8	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
o-Xylene	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Propylene (Propene)	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U
Styrene	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U
Tetrachloroethene	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9
Tetrahydrofuran	6.8	22	40	18	210	4.1	6.5
Toluene	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36
trans-1,2-Dichloroethene	0.2 U	1 U	0.4 U	28	40 U	7.7	15
trans-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Trichloroethene	2	11	16	2.7	54 U	1	1.0
Trichlorofluoromethane	0.71	1.4 U	23	6700	84	180	210
Trichlorotrifluoroethane	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51
Vinyl acetate	0.71 U	0.9 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	30	13	4.5	26 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)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Large Retail Space													
		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
1,1,1-Trichloroethane	500	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4	2	0.27 U	0.27 U	0.27 U	0.27 U	0.24
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	0.24 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	0.19 U					
1,1-Dichloroethane	430	0.71	0.2 U	0.2 U	0.2 U	0.27	0.32	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,1-Dichloroethene	20	0.38	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
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	0.52 U					
1,2,4-Trimethylbenzene	52	0.25 U	0.36	0.7	0.77	0.25 U	0.25 U	0.18 U	0.48	0.29	0.35	0.28	0.51	0.52	
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	0.27 U					
1,2-Dichlorobenzene	410	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	0.21 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	0.14 U
1,2-Dichloropropane	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.17 U				
1,2-Dichlortetrafluoroethane	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	0.25 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	0.18					
1,3-Butadiene	NA	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.08 U	0.11 U	0.23 U	0.17				
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	0.21 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	0.21 U
1,4-Dioxane	NA														
2-Butanone	500	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2	4.4	2	2.6	2.7	1.3	2.7
2-Hexanone	NA	0.2 U	0.2 U	0.6	0.42	0.2 U	0.23	0.2 U	0.14 U	0.48	0.43	0.52	0.73	0.31	0.71
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	0.18					
4-Methyl-2-pentanone	200	0.2 U	0.2 U	0.43	0.3	0.2 U	0.2 U	0.2 U	0.14 U	0.52	0.21	0.35	0.32	0.2 U	0.34
Acetone	500	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13
Benzene	3.3	1	0.68	1.9	3	0.69	0.87	0.71	0.56	0.78	0.49	0.47	0.39	0.48	1.1
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	0.19 U					
Bromodichloromethane	0.46	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	0.24 U
Bromoform	7.3	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	0.36 U
Bromomethane	NA	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	0.14 U				
Carbon disulfide	NA	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	0.12 U				
Carbon tetrachloride	0.54	0.35	0.41	0.52	0.55	0.46	0.59	0.53	0.31	0.43	0.48	0.38	0.42	0.43	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	0.17 U					
Chloroethane	500	0.13 U	0.13 U	0.42	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	0.1 U
Chloroform	0.5	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	0.24 U	0.24 U	0.17 U
Chloromethane	80	1.1	1	1.4	1.5	1	1	1.2	1.1	1.3	1.1	1.1	0.98	0.95	1.3
cis-1,2-Dichloroethene	100	2	0.2 U	1	1.1	0.73	1.3	0.5	0.6	1.3	0.2 U	0.2 U	0.83	0.44	0.57
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	0.16 U					
Cyclohexane	NA	0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.12 U	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.28
Dibromochloromethane	NA	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	0.31 U
Dichlorodifluoromethane	500	1.8	2.1	2.6	2.8	2.6	2.6	3.1	2	8.3	2.4	2	2.3	2.1	1.6
Ethanol	NA	5.7	8.3	14	20	9.8	7.5	18	5	39	6.2	7	6.5	8.8	10
Ethyl acetate	NA	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.18 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)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Large Retail Space													
		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
Ethylbenzene	290	0.26	0.28	0.66	0.85	0.23	0.22 U	0.22 U	0.16 U	0.94	0.23	0.23	0.22 U	0.28	0.46
Hexachlorobutadiene	NA	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	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U
Hexane	NA	0.92	0.74	1.2	1.6	1	0.51	0.53	0.65	1.7	0.99	1.3	0.41	0.77	0.78
Isopropyl alcohol	NA	3.4	3.1	5.3	5.8	3.8	2	9.1	0.18 U	240	5.2	5.2	0.25 U	2.7	1.8
m,p-Xylene	500	0.76	0.87	2.1	2.8	0.8	0.43 U	0.63	0.31 U	2.5	0.79	0.91	0.73	1	1.4
Methyl methacrylate	NA														
Methylene chloride	17	2.3	33	2.3	1.8	4.4	1.1	6.7	3.5	4.8	1.6	3.6	0.7 U	0.7 U	2.9
Methyl-t-butyl ether	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	0.13 U				
n-Heptane	NA	0.23	0.2 U	0.59	0.75	0.2 U	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	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)	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	290	0.21 U	0.21 U	0.21	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.19
Tetrachloroethene	5	6.6	0.57	4.2	3.2	2.6	4.9	1.5	1.9	6.1	0.34 U	0.34 U	2	1.1	3.2
Tetrahydrofuran	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	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	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	2.9	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	0.16 U				
Trichloroethene	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	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	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	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	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-1-201711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-1-120811 12/8/2011	IA-2-011609 1/16/2009	IA-2-020309 2/3/2009		
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	0.12	9.9	0.63	
1,1,2-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	0.21 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	0.27 U	0.27 U	0.27 U	0.16 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	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.72	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	0.2 U	0.2 U	0.2 U	0.12 U	0.41	0.2 U	
1,2,4-Trichlorobenzene	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	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.37	0.25 U	0.26	0.25 U	0.25 U	0.25 U	0.25	0.4	0.43	0.56	0.25 U	0.55	0.25 U	0.25 U	0.1	0.25 U	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	0.38 U	0.38 U	0.23 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	0.3 U	0.3 U	0.30 U	0.18 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	0.2 U	0.2 U	0.20 U	0.056	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	0.23 U	0.23 U	0.23 U	0.14 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		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	0.25 U	0.25 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	0.11 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	0.3 U	0.3 U	0.30 U	0.18 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	0.3 U	0.3 U	0.30 U	0.18 U	0.3 U	0.3 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	21	4.1		
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	0.2 U	0.2 U		
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	0.25 U	0.25 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	0.2 U	0.2 U		
Acetone	12	2.0	19	7.3	8.5	7	6.5	18	18	11	12 B	15 B	11 B	18	8	17	9.6		
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	1	0.67		
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	0.16 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	0.33 U	0.34 U	0.34 U	0.34 U	0.2 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	0.51 U	0.52 U	0.52 U	0.52 U	0.31 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	0.19 U	0.19 U	0.12 U	0.19 U	0.19 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	0.16 U	0.16 U	0.93 U	0.16 U	0.16 U	
Carbon tetrachloride	0.43	0.31 U	0.40	0.31 U	0.45	0.44	0.48	0.55	0.52	0.5	0.46	0.47	0.53	0.57	0.49	0.33	0.41		
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	0.23 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	0.13 U	0.13 U	0.079 U	0.13 U	0.13 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	0.24 U	0.24 U		
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	1.1	1		
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	2.1	0.24		
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	0.14 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	0.17 U	0.17 U	0.17 U	0.17 U	0.1 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	0.43 U	0.43 U	0.26 U	0.43 U	0.43 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	1.8	2.2		
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	5.5	8.8		
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	0.37 U	0.37 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-2-011609 1/16/2009	IA-2-020309 2/3/2009
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	0.26	0.28
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	0.32 U	1.1 U	1.1 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	0.88	0.57
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	3.7	3.1
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	0.76	0.88
Methyl methacrylate											0.2 U	0.2 U	0.2 U	0.20 U	0.12 U		
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	2	30
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	0.11 U	0.18 U	0.18 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	0.23	0.2 U
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	0.3	0.34
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	0.18 U	0.18 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	0.21 U	0.21 U
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	7.5	0.64
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	12	1.2
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	1.7	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	0.2 U	0.2 U	0.20 U	0.12 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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.22 U	0.22 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	4.4	0.56
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	2	1.2
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	0.69	0.58
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	0.71 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	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.27	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-2-021109 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
1,1,1-Trichloroethane	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	1
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						
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						
1,1-Dichloroethane	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
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
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						
1,2,4-Trimethylbenzene	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	0.25 U	0.31
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						
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
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
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						
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						
1,3,5-Trimethylbenzene	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U				
1,3-Butadiene	0.3	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 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
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	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane															
2-Butanone	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
2-Hexanone	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
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						
4-Methyl-2-pentanone	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	0.2 U
Acetone	14	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2
Benzene	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
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						
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						
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						
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						
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						
Carbon tetrachloride	0.55	0.57	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
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						
Chloroethane	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
Chloroform	0.24 U	0.24 U	0.25	0.17 U	0.24 U	0.47	0.40	0.24 U	0.24 U	0.24 U					
Chloromethane	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
cis-1,2-Dichloroethene	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
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						
Cyclohexane	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				
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						
Dichlorodifluoromethane	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
Ethanol	12	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9
Ethyl acetate	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					

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-2-021109 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
Ethylbenzene	0.65	0.79	0.3	0.18	0.22 U	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.22 U	0.22 U	0.23
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
Hexane	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
Isopropyl alcohol	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
m,p-Xylene	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
Methyl methacrylate															
Methylene chloride	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
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						
n-Heptane	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
o-Xylene	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
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
Styrene	0.21 U	0.23	0.21 U	0.15 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U				
Tetrachloroethene	4.2	3.2	3.3	2.2	7.6	0.34 U	0.35	1.7	1	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6
Tetrahydrofuran	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
Toluene	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
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	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	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U						
Trichloroethene	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
Trichlorofluoromethane	1.7	2.8	1.6	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.1	1.4	1.3
Trichlorotrifluoroethane	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
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
Vinyl chloride	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

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

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space																	
	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	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	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	
1,1,1-Trichloroethane	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.13	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	
1,1,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.34 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	
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	0.16 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	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.68	0.2 U	0.2 U	0.2 U	0.14 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	0.20 U	0.12 U	0.35	0.2 U	0.2 U	0.2 U	0.14 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	0.74 U	0.45 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
1,2,4-Trimethylbenzene	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 U	0.088	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	0.4
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	0.23 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
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.063	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
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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
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
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	0.15 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
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 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
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 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
1,4-Dioxane								0.18 U										
2-Butanone	3.1	3.4	0.96	0.36	1.9 B	2.9 U	5.9 U	0.93	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	
2-Hexanone	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 U	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 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
4-Methyl-2-pentanone	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	0.1	0.2 U	0.2 U	0.29	0.34	0.2 U	0.14 U	0.22	0.2 U	0.42	
Acetone	18	20	11	9.8 B	15 B	8.9 B	18	6.2	18	12	17	24	9.7	7.5	50	11	19	
Benzene	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.26 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
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.33 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
Bromoform	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.51 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
Bromomethane	0.19 U	0.22	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 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
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6	0.93 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
Carbon tetrachloride	0.5	0.52	0.5	0.48	0.31 U	0.62	0.52	0.49	0.34	0.45	0.52	0.6	0.43	0.22 U	0.42	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	0.14 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
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.13 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
Chloroform	0.24 U	0.24 U	3.4	0.24 U	0.24 U	0.24 U	0.24 U	0.085	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	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	
cis-1,2-Dichloroethene	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.17	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.22 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
Cyclohexane	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 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
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.43 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
Dichlorodifluoromethane	2.4	2.6	1.7	1.9	3.2	1.6	2	2.7	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	
Ethanol	5	7.6	9	2.7	10	2.5	8.5	2.1	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.22	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	

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-2-091610 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	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	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
Ethylbenzene	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 U	0.13	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 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
Hexane	0.51	0.49	0.53	0.35 U	1.6	0.31	7.0 U	0.32	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47
Isopropyl alcohol	0.12 U	1.2	0.25 U	0.25 U	2	1.2 U	4.9 U	2.9 U	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9
m,p-Xylene	0.96	1.3	1.5	0.43 U	1.5	0.36 J	0.57	0.39	0.75	0.9	2	2.6	0.65	0.57	0.66	0.7	0.99
Methyl methacrylate				0.2 U	0.2 U	0.2 U	0.20 U	0.12 U									
Methylene chloride	0.35 U	1.3	0.53	0.61	4.2	1	7.5	1.1	2.2	31	3.1	3.5	33	1.2	3.6	2.4	0.7 U
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	0.11 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
n-Heptane	0.2 U	0.8	0.34	0.2 U	0.48	0.2 U	0.20 U	0.091	0.22	0.2 U	0.61	0.77	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.44	0.57	0.63	0.22 U	0.56	0.22 U	0.23	0.14	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45
Propylene (Propene)	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	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
Styrene	0.25	0.36	0.24	0.21 U	0.21 U	0.21 U	0.059	0.21 U	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
Tetrachloroethene	0.43	1.4	0.34 U	3.2	5.2 [a]	0.34 U	0.45	0.92	6.1	0.56	4.3	3.3	1.9	2.2	7.1	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.097	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U	0.15 U	0.15 U
Toluene	0.91	1.3	2.2	0.41	2.9	0.55	0.99	1.6	1.7	1.5	4.7	5.8	2.1	1	1.2	1.2	1.1
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.2 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
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.22 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
Trichloroethene	0.27 U	0.53	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.27	3.9	0.49	1.7	1.5	0.53	0.77	1.8	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.6	2.5	1.2	1.8	1.2	1.9	1.1	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2
Trichlorotrifluoroethane	0.53	0.94	0.45	0.59	0.71	0.71	0.61	0.71	0.6	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46
Vinyl acetate	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.71 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
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	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 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space															
	IA-3-100109 10/1/2009	IA-3-100809 10/8/2009	IA-3-012810 1/28/2010	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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.45	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	0.11
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
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	0.16 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
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	0.12 U
1,2,4-Trichlorobenzene	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	0.37 U	0.45 U
1,2,4-Trimethylbenzene	0.25 U	0.39	0.44	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
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
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	0.3 U	0.18 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	0.2 U	0.056
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
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	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.42	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
1,3-Butadiene	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	0.066 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	0.3 U	0.18 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	0.3 U	0.18 U
1,4-Dioxane																0.18 U
2-Butanone	0.7	1.5	1.9	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
2-Hexanone	0.2 U	0.37	0.52	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
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	0.25 U	0.15 U
4-Methyl-2-pentanone	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
Acetone	6.7	11	14	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2
Benzene	0.39	0.46	1.3	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
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
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	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 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	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 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
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	0.16 U	0.16 U	0.16 U	0.16 U	0.93 U
Carbon tetrachloride	0.4	0.42	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57	0.41	0.45	0.6	0.64	0.51	0.5
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	0.23 U	0.14 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	0.13 U	0.079 U
Chloroform	0.24 U	0.24 U	0.24 U	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
Chloromethane	0.97	1	1.2	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
cis-1,2-Dichloroethene	0.94	0.49	0.59	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
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	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.1 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	0.43 U	0.26 U
Dichlorodifluoromethane	2.2	2.2	2.3	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
Ethanol	4.5	5	13	40	17	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8	2.1
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	0.18 U	0.11 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-3-100109 10/1/2009	IA-3-100809 10/8/2009	IA-3-012810 1/28/2010	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
Ethylbenzene	0.22 U	0.24	0.43	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	
Hexachlorobutadiene	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	0.32 U	
Hexane	0.37	0.71	0.55	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
Isopropyl alcohol	0.25 U	0.25 U	0.25 U	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
m,p-Xylene	0.65	0.87	1.2	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
Methyl methacrylate														0.2 U	0.2 U	0.2 U
Methylene chloride	0.7 U	0.7 U	1.4	0.7 U	2.3	0.7 U	0.7 U	0.35 U	1.2	0.57	0.55	4.6	8	1.7 U	1.5	
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	0.11 U	
n-Heptane	0.2 U	0.24	0.73	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	
o-Xylene	0.27	0.34	0.44	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
Propylene (Propene)	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	0.86 U	3.4 U	2.1 U
Styrene	0.21 U	0.21 U	0.40	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	0.21 U	0.041
Tetrachloroethene	2	1.1	2.2	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
Tetrahydrofuran	0.15 U	0.15 U	0.40	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
Toluene	0.73	1.1	2.5	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
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
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	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Trichloroethene	1.1	0.54	0.75	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
Trichlorofluoromethane	1.2	1.2	1.2	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
Trichlorotrifluoroethane	0.49	0.47	0.49	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
Vinyl acetate	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	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U
Vinyl chloride	0.18	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	0.13	0.13 U	0.13 U	0.13 U	0.077 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-4 011609 1/16/2009	IA-4- 020309 2/3/2009	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- 1012810 1/28/2010	IA-4- 020510 2/5/2010	IA-4- 021210 2/12/2010	IA-4- 021910 2/19/2010	
1,1,1-Trichloroethane	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.27 U	0.76	0.29	0.89				
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					
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					
1,1-Dichloroethane	0.73	0.2 U	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
1,1-Dichloroethene	0.42	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
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					
1,2,4-Trimethylbenzene	0.26	0.37	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
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					
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
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
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					
1,2-Dichlortetrafluoroethane	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					
1,3,5-Trimethylbenzene	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					
1,3-Butadiene	0.11 U	0.11 U	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				
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
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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane																
2-Butanone	21	4.4	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	
2-Hexanone	0.2 U	0.33	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
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					
4-Methyl-2-pentanone	0.2 U	0.2 U	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
Acetone	17	10	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	
Benzene	1.1	0.68	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	
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					
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					
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					
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					
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					
Carbon tetrachloride	0.4	0.43	0.5	0.58	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	
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					
Chloroethane	0.13 U	0.13 U	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
Chloroform	0.24 U	0.24 U	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					
Chloromethane	1.2	0.99	1.4	1.3	1	1.1	1.2	0.9	1.1	1	1	1.3	1.3	1.3	1.2	
cis-1,2-Dichloroethene	2.4	0.2 U	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	0.2 U	0.59
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					
Cyclohexane	0.17 U	0.17 U	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					
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					
Dichlorodifluoromethane	1.9	2.2	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	
Ethanol	5.3	8.9	12	18	8	5.2	5.5	6	6.5	4.9	5.6	7.7	34	17	31	
Ethyl acetate	0.37 U	0.37 U	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				

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-4 011609 1/16/2009	IA-4- 020309 2/3/2009	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- 1012810 1/28/2010	IA-4- 020510 2/5/2010	IA-4- 021210 2/12/2010	IA-4- 021910 2/19/2010
Ethylbenzene	0.25	0.29	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
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	0.53 U
Hexane	0.9	0.66	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
Isopropyl alcohol	3.5	3.3	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
m,p-Xylene	0.76	0.89	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
Methyl methacrylate															
Methylene chloride	2.3	29	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
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					
n-Heptane	0.23	0.2 U	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
o-Xylene	0.27	0.33	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
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
Styrene	0.21 U	0.21 U	0.22	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	7.3	0.58	4.4	3.4	3.4	2.4	7.9	0.75	0.34 U	2	1.1	0.34 U	0.34 U	0.34 U	1.4
Tetrahydrofuran	13	1.2	1.3	0.47	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U	0.15 U				
Toluene	1.8	1.3	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
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	1.1	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					
Trichloroethene	4.7	0.48	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
Trichlorofluoromethane	2	1.3	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
Trichlorotrifluoroethane	0.72	0.59	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
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
Vinyl chloride	0.29	0.13 U	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

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-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	IA-4-120811 12/8/2011	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009
1,1,1-Trichloroethane	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14	0.45	0.52	0.65	0.57	0.51	0.44
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	0.21 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	0.16 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	0.20 U	0.12 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	0.20 U	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.75 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	0.37 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	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 U	0.094	0.25 U	0.25 U	0.25 U	0.29	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	0.23 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	0.30 U	0.18 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	0.20 U	0.063	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	0.14 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	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 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	0.23 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	0.11 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	0.30 U	0.18 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	0.30 U	0.18 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	1.60	1.50	2.20	4.8	2.4	0.96	1 B	2.9 U	5.9 U	1	3.3	3.4	2.1	2.6	2	1.6
2-Hexanone	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086	0.73	0.66	0.38	0.51	0.37	0.38
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	0.15 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	0.2 U	0.43	0.45	0.2 U	0.2 U	0.20 U	0.098	0.42	0.39	0.32	0.36	0.54	0.27	
Acetone	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	12	13	10	11	8.5	7.7
Benzene	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.54	0.6	0.67	0.55	0.56	0.51
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	0.16 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	0.34 U	0.34 U	0.34 U	0.34 U	0.2 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	0.52 U	0.52 U	0.52 U	0.52 U	0.31 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	0.12 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	0.31	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.16 U				
Carbon tetrachloride	0.43	0.47	0.52	0.48	0.44	0.46	0.57	0.68	0.52	0.48	0.7	0.68	0.71	0.68	0.68	0.63
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	0.14 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	0.079 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	3.3	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.24 U					
Chloromethane	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4	1	0.98	1	0.95	1	1
cis-1,2-Dichloroethene	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.20 U	0.19	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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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	0.1 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	0.26 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	1.7	2.1	2.5	2.6	1.5	2	3.2	1.8	1.7	2.8	2.5	2.3	2.6	2.4	2.7	2.4
Ethanol	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	2.4	65	9	6.5	5.9	6	5.6
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26	0.18 U	0.18 U	0.16	0.18 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-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	IA-4-120811 12/8/2011	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009
Ethylbenzene	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 U	0.16	0.22 U				
Hexachlorobutadiene	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7.0 U	0.35	1.1	0.21	0.18 U	0.18	0.24
Isopropyl alcohol	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 U	2.9 U	3.3	3.4	3.7	3.5	3.6
m,p-Xylene	0.49	0.8	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.41	0.58	0.57	0.58	0.55	0.49
Methyl methacrylate						0.2 U	0.2 U	0.2 U	0.20 U	0.12 U					
Methylene chloride	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 U	1.5	5.9	1.5	1.5	1.6	1.9
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	0.11 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	0.22	0.32	0.2 U	0.51	0.2 U	0.20 U	0.071	0.2 U				
o-Xylene	0.22 U	0.3	0.44	0.5	0.57	0.22 U	0.53	0.22 U	0.22 U	0.15	0.28	0.28	0.27	0.27	0.25
Propylene (Propene)	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	2.1 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Styrene	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	0.077	0.23	0.21 U	0.21 U	0.22	0.21 U
Tetrachloroethene	0.34 U	4.4	0.44	1.1	0.34 U	3.4	5	0.34 U	0.45	1.2	0.47	0.47	0.54	0.66	0.64
Tetrahydrofuran	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	0.076	0.15 U				
Toluene	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	1.6	0.73	0.7	0.58	0.59	0.51
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	0.20 U	0.12 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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	1.4	0.27 U	0.44	0.27 U	1.8	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.28	0.27	0.29	0.34
Trichlorofluoromethane	1.5	1.3	1.3	1.9	2.4	1.2	1.8	1.4	1.8	1.3	1.3	1.3	1.2	1.1	1.4
Trichlorotrifluoroethane	1.3	0.48	0.51	0.59	0.43	0.54	0.7	0.71	0.52	0.71	0.63	0.6	0.65	0.62	0.64
Vinyl acetate	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	0.11 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	0.16	0.13 U	0.13 U	0.13 U	0.077 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)	Indoor Air - Large Retail Space			
	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
1,1,1-Trichloroethane	0.69	0.5	0.49	0.53
1,1,2,2-Tetrachloroethane	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
1,1-Dichloroethane	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
1,2,4-Trichlorobenzene	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	0.25 U
1,2-Dibromoethane (EDB)	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
1,2-Dichloroethane	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
1,2-Dichlorotetrafluoroethane	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
1,3-Butadiene	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
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane				
2-Butanone	3.1	2.5	2.6	1.4
2-Hexanone	0.61	0.48	0.43	0.29
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.32	0.3	0.61	0.23
Acetone	13	11	9.8	6.9
Benzene	0.53	0.6	0.51	0.57
Benzyl chloride	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
Bromoform	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
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.68	0.7	0.64	0.66
Chlorobenzene	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
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	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
Cyclohexane	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
Dichlorodifluoromethane	2.4	2.8	2.3	2.7
Ethanol	5.9	14	44	14
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 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			
	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
Ethylbenzene	0.22 U	0.22 U	0.27	0.22 U
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	0.19	0.21	0.2	0.18 U
Isopropyl alcohol	4.4	3.6	2.8	3.2
m,p-Xylene	0.48	0.53	1	0.5
Methyl methacrylate				
Methylene chloride	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	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
o-Xylene	0.25	0.27	0.34	0.26
Propylene (Propene)	0.09 U	0.09 U	0.09 U	0.09 U
Styrene	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.73	0.53	0.46	0.46
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	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
Trichloroethene	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.1	1.4	1	1.4
Trichlorotrifluoroethane	0.59	0.68	0.62	0.58
Vinyl acetate	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

[a] 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 1/13/12

Checked by/Date: MAM 1/13/12

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

* vacuum reduced at extraction wells

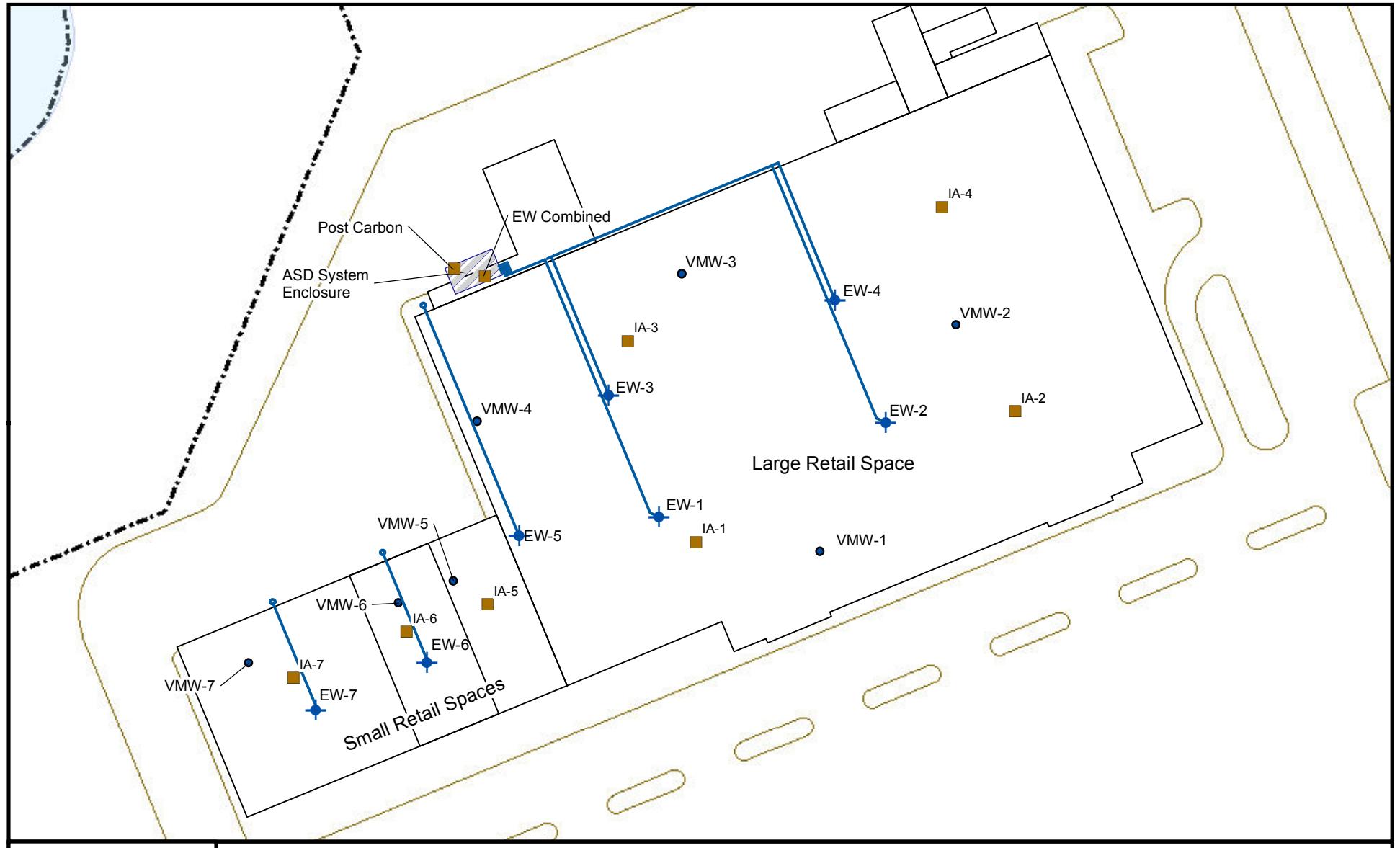
** ASD system offline

Prepared by/Date: MAM 01/13/12

Checked by/Date: DGK 01/17/12

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Fourth Quarter, 2011

FIGURES



All locations are approximate



0
30
60
Feet

Prepared/Date: BJR 08/01/11 Checked/Date: PJM 08/01/11

Legend

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



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, Fourth Quarter, 2011

APPENDIX A

Laboratory Reports

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

December 16, 2011

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

Project Location: Providence, RI, Textron Gorham

Client Job Number:

Project Number: 3650080114

Laboratory Work Order Number: 11L0398

Enclosed are results of analyses for samples received by the laboratory on December 9, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James M. Georganas
Project Manager

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

REPORT DATE: 12/16/2011

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

PURCHASE ORDER NUMBER: 20110527

PROJECT NUMBER: 3650080114

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11L0398

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, Textron Gorham

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-120811	11L0398-01	Indoor air		EPA TO-15	
IA-2-120811	11L0398-02	Indoor air		EPA TO-15	
IA-3-120811	11L0398-03	Indoor air		EPA TO-15	
IA-4-120811	11L0398-04	Indoor air		EPA TO-15	
IA-5-120811	11L0398-05	Indoor air		EPA TO-15	
IA-6-120811	11L0398-06	Indoor air		EPA TO-15	
IA-7-120811	11L0398-07	Indoor air		EPA TO-15	
AA-1-120811	11L0398-08	Ambient Air		EPA TO-15	
EW-5-120811	11L0398-09	Soil Gas		EPA TO-15	
EW-6-120811	11L0398-10	Soil Gas		EPA TO-15	
EW-7-120811	11L0398-11	Soil Gas		EPA TO-15	
EW-Combined-120811	11L0398-12	Soil Gas		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:

2-Hexanone (MBK), 4-Methyl-2-pentanone (MIBK)

11L0398-01[IA-1-120811], 11L0398-02[IA-2-120811], 11L0398-03[IA-3-120811], 11L0398-04[IA-4-120811], 11L0398-05[IA-5-120811], 11L0398-06[IA-6-120811],
11L0398-07[IA-7-120811], 11L0398-08[AA-1-120811], 11L0398-11[EW-7-120811], 11L0398-12[EW-Combined-120811], B042767-BLK1, B042767-BS1,
11L0398-09[EW-5-120811], 11L0398-10[EW-6-120811], B042852-BLK1, B042852-BS1, S001507-CCV1

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, Trichlorofluoromethane (Freon 11)

11L0398-09[EW-5-120811], 11L0398-10[EW-6-120811], B042852-BLK1, B042852-BS1

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

Analyte & Samples(s) Qualified:

4-Methyl-2-pentanone (MIBK)

11L0398-01[IA-1-120811], 11L0398-02[IA-2-120811], 11L0398-03[IA-3-120811], 11L0398-04[IA-4-120811], 11L0398-05[IA-5-120811], 11L0398-06[IA-6-120811],
11L0398-07[IA-7-120811], 11L0398-08[AA-1-120811], 11L0398-09[EW-5-120811], 11L0398-10[EW-6-120811], 11L0398-11[EW-7-120811],
11L0398-12[EW-Combined-120811], B042767-BLK1, B042767-BS1, B042852-BLK1, B042852-BS1, S001497-CCV1, S001507-CCV1

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.



Michael A. Erickson
Laboratory Director

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-1-120811

Sample ID: 11L0398-01

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:30

Sample Description/Location:

Sub Description/Location:

Canister ID: 1038

Canister Size: 6 liter

Flow Controller ID: 4082

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time		
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst	
Acetone	3.4	1.2	0.14		8.0	2.9	0.6	12/12/11 20:12	WSD	
Benzene	0.15	0.030	0.016		0.47	0.096	0.6	12/12/11 20:12	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/12/11 20:12	WSD	
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/12/11 20:12	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/12/11 20:12	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/12/11 20:12	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/12/11 20:12	WSD	
2-Butanone (MEK)	0.61	1.2	0.023	J	1.8	3.5	0.6	12/12/11 20:12	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	12/12/11 20:12	WSD	
Carbon Tetrachloride	0.077	0.030	0.0084		0.49	0.19	0.6	12/12/11 20:12	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/12/11 20:12	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/12/11 20:12	WSD	
Chloroform	0.017	0.030	0.011	J	0.085	0.15	0.6	12/12/11 20:12	WSD	
Chloromethane	0.45	0.030	0.015		0.93	0.062	0.6	12/12/11 20:12	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/12/11 20:12	WSD	
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/12/11 20:12	WSD	
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/12/11 20:12	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	12/12/11 20:12	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/12/11 20:12	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/12/11 20:12	WSD	
Dichlorodifluoromethane (Freon 12)	0.52	0.030	0.013		2.6	0.15	0.6	12/12/11 20:12	WSD	
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 20:12	WSD	
1,2-Dichloroethane	0.014	0.030	0.010	J	0.056	0.12	0.6	12/12/11 20:12	WSD	
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/12/11 20:12	WSD	
cis-1,2-Dichloroethylene	0.037	0.030	0.0084		0.15	0.12	0.6	12/12/11 20:12	WSD	
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/12/11 20:12	WSD	
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/12/11 20:12	WSD	
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 20:12	WSD	
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 20:12	WSD	
Ethanol	1.2	1.2	0.14	J	2.2	2.3	0.6	12/12/11 20:12	WSD	
Ethyl Acetate	ND	0.030	0.016		ND	0.11	0.6	12/12/11 20:12	WSD	
Ethylbenzene	0.033	0.030	0.0084		0.14	0.13	0.6	12/12/11 20:12	WSD	
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	12/12/11 20:12	WSD	
Heptane	0.019	0.030	0.010	J	0.079	0.12	0.6	12/12/11 20:12	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/12/11 20:12	WSD	
Hexane	0.11	1.2	0.026	J	0.39	4.2	0.6	12/12/11 20:12	WSD	
2-Hexanone (MBK)	0.053	0.030	0.0090	L-03	0.22	0.12	0.6	12/12/11 20:12	WSD	
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	12/12/11 20:12	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-1-120811

Sample ID: 11L0398-01

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:30

Sample Description/Location:

Sub Description/Location:

Canister ID: 1038

Canister Size: 6 liter

Flow Controller ID: 4082

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/12/11 20:12	WSD	
Methylene Chloride	0.46	0.30	0.038		1.6	1.0	0.6	12/12/11 20:12	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 20:12	WSD	
4-Methyl-2-pentanone (MIBK)	0.095	0.030	0.0090	L-03, V-05	0.39	0.12	0.6	12/12/11 20:12	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	12/12/11 20:12	WSD	
Styrene	0.20	0.030	0.0066		0.85	0.13	0.6	12/12/11 20:12	WSD	
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/12/11 20:12	WSD	
Tetrachloroethylene	0.12	0.030	0.0090		0.84	0.20	0.6	12/12/11 20:12	WSD	
Tetrahydrofuran	0.047	0.030	0.0096		0.14	0.088	0.6	12/12/11 20:12	WSD	
Toluene	0.42	0.030	0.0084		1.6	0.11	0.6	12/12/11 20:12	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	12/12/11 20:12	WSD	
1,1,1-Trichloroethane	0.022	0.030	0.010	J	0.12	0.16	0.6	12/12/11 20:12	WSD	
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/12/11 20:12	WSD	
Trichloroethylene	0.047	0.030	0.0084		0.25	0.16	0.6	12/12/11 20:12	WSD	
Trichlorofluoromethane (Freon 11)	0.18	0.030	0.019		1.0	0.17	0.6	12/12/11 20:12	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.090	0.030	0.010		0.69	0.23	0.6	12/12/11 20:12	WSD	
1,2,4-Trimethylbenzene	0.020	0.030	0.010	J	0.10	0.15	0.6	12/12/11 20:12	WSD	
1,3,5-Trimethylbenzene	0.0090	0.030	0.0090	J	0.044	0.15	0.6	12/12/11 20:12	WSD	
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/12/11 20:12	WSD	
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/12/11 20:12	WSD	
m&p-Xylene	0.094	0.060	0.016		0.41	0.26	0.6	12/12/11 20:12	WSD	
o-Xylene	0.034	0.030	0.0078		0.15	0.13	0.6	12/12/11 20:12	WSD	

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

103

70-130

12/12/11 20:12

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-2-120811

Sample ID: 11L0398-02

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:33

Sample Description/Location:

Sub Description/Location:

Canister ID: 1857

Canister Size: 6 liter

Flow Controller ID: 4069

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	2.6	1.2	0.14		6.2	2.9		0.6	12/12/11 20:59	WSD
Benzene	0.12	0.030	0.016		0.39	0.096		0.6	12/12/11 20:59	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16		0.6	12/12/11 20:59	WSD
Bromodichloromethane	ND	0.030	0.0084		ND	0.20		0.6	12/12/11 20:59	WSD
Bromoform	ND	0.030	0.0078		ND	0.31		0.6	12/12/11 20:59	WSD
Bromomethane	ND	0.030	0.029		ND	0.12		0.6	12/12/11 20:59	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066		0.6	12/12/11 20:59	WSD
2-Butanone (MEK)	0.32	1.2	0.023	J	0.93	3.5		0.6	12/12/11 20:59	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93		0.6	12/12/11 20:59	WSD
Carbon Tetrachloride	0.077	0.030	0.0084		0.49	0.19		0.6	12/12/11 20:59	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14		0.6	12/12/11 20:59	WSD
Chloroethane	ND	0.030	0.017		ND	0.079		0.6	12/12/11 20:59	WSD
Chloroform	0.017	0.030	0.011	J	0.085	0.15		0.6	12/12/11 20:59	WSD
Chloromethane	0.45	0.030	0.015		0.93	0.062		0.6	12/12/11 20:59	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10		0.6	12/12/11 20:59	WSD
Dibromochloromethane	ND	0.030	0.0072		ND	0.26		0.6	12/12/11 20:59	WSD
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23		0.6	12/12/11 20:59	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18		0.6	12/12/11 20:59	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18		0.6	12/12/11 20:59	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18		0.6	12/12/11 20:59	WSD
Dichlorodifluoromethane (Freon 12)	0.55	0.030	0.013		2.7	0.15		0.6	12/12/11 20:59	WSD
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12		0.6	12/12/11 20:59	WSD
1,2-Dichloroethane	0.016	0.030	0.010	J	0.063	0.12		0.6	12/12/11 20:59	WSD
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12		0.6	12/12/11 20:59	WSD
cis-1,2-Dichloroethylene	0.042	0.030	0.0084		0.17	0.12		0.6	12/12/11 20:59	WSD
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12		0.6	12/12/11 20:59	WSD
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14		0.6	12/12/11 20:59	WSD
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14		0.6	12/12/11 20:59	WSD
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14		0.6	12/12/11 20:59	WSD
Ethanol	1.1	1.2	0.14	J	2.1	2.3		0.6	12/12/11 20:59	WSD
Ethyl Acetate	0.062	0.030	0.016		0.22	0.11		0.6	12/12/11 20:59	WSD
Ethylbenzene	0.029	0.030	0.0084	J	0.13	0.13		0.6	12/12/11 20:59	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15		0.6	12/12/11 20:59	WSD
Heptane	0.022	0.030	0.010	J	0.091	0.12		0.6	12/12/11 20:59	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32		0.6	12/12/11 20:59	WSD
Hexane	0.091	1.2	0.026	J	0.32	4.2		0.6	12/12/11 20:59	WSD
2-Hexanone (MBK)	ND	0.030	0.0090	L-03	ND	0.12		0.6	12/12/11 20:59	WSD
Isopropanol	ND	1.2	0.018		ND	2.9		0.6	12/12/11 20:59	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-2-120811

Sample ID: 11L0398-02

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:33

Sample Description/Location:

Sub Description/Location:

Canister ID: 1857

Canister Size: 6 liter

Flow Controller ID: 4069

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/12/11 20:59	WSD	
Methylene Chloride	0.33	0.30	0.038		1.1	1.0	0.6	12/12/11 20:59	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 20:59	WSD	
4-Methyl-2-pentanone (MIBK)	0.025	0.030	0.0090	L-03, V-05, J	0.10	0.12	0.6	12/12/11 20:59	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	12/12/11 20:59	WSD	
Styrene	0.014	0.030	0.0066	J	0.059	0.13	0.6	12/12/11 20:59	WSD	
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/12/11 20:59	WSD	
Tetrachloroethylene	0.14	0.030	0.0090		0.92	0.20	0.6	12/12/11 20:59	WSD	
Tetrahydrofuran	0.033	0.030	0.0096		0.097	0.088	0.6	12/12/11 20:59	WSD	
Toluene	0.42	0.030	0.0084		1.6	0.11	0.6	12/12/11 20:59	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	12/12/11 20:59	WSD	
1,1,1-Trichloroethane	0.023	0.030	0.010	J	0.13	0.16	0.6	12/12/11 20:59	WSD	
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/12/11 20:59	WSD	
Trichloroethylene	0.050	0.030	0.0084		0.27	0.16	0.6	12/12/11 20:59	WSD	
Trichlorofluoromethane (Freon 11)	0.20	0.030	0.019		1.1	0.17	0.6	12/12/11 20:59	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.092	0.030	0.010		0.71	0.23	0.6	12/12/11 20:59	WSD	
1,2,4-Trimethylbenzene	0.018	0.030	0.010	J	0.088	0.15	0.6	12/12/11 20:59	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	12/12/11 20:59	WSD	
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/12/11 20:59	WSD	
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/12/11 20:59	WSD	
m&p-Xylene	0.090	0.060	0.016		0.39	0.26	0.6	12/12/11 20:59	WSD	
o-Xylene	0.031	0.030	0.0078		0.14	0.13	0.6	12/12/11 20:59	WSD	

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

102

70-130

12/12/11 20:59

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-3-120811

Sample ID: 11L0398-03

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1033

Canister Size: 6 liter

Flow Controller ID: 4031

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL	Dilution			
Acetone	3.0	1.2	0.14		7.2	2.9	0.6	12/12/11 21:46	WSD	
Benzene	0.12	0.030	0.016		0.39	0.096	0.6	12/12/11 21:46	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/12/11 21:46	WSD	
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/12/11 21:46	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/12/11 21:46	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/12/11 21:46	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/12/11 21:46	WSD	
2-Butanone (MEK)	0.40	1.2	0.023	J	1.2	3.5	0.6	12/12/11 21:46	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	12/12/11 21:46	WSD	
Carbon Tetrachloride	0.079	0.030	0.0084		0.50	0.19	0.6	12/12/11 21:46	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/12/11 21:46	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/12/11 21:46	WSD	
Chloroform	0.016	0.030	0.011	J	0.079	0.15	0.6	12/12/11 21:46	WSD	
Chloromethane	0.40	0.030	0.015		0.84	0.062	0.6	12/12/11 21:46	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/12/11 21:46	WSD	
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/12/11 21:46	WSD	
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/12/11 21:46	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	12/12/11 21:46	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/12/11 21:46	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/12/11 21:46	WSD	
Dichlorodifluoromethane (Freon 12)	0.53	0.030	0.013		2.6	0.15	0.6	12/12/11 21:46	WSD	
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 21:46	WSD	
1,2-Dichloroethane	0.014	0.030	0.010	J	0.056	0.12	0.6	12/12/11 21:46	WSD	
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/12/11 21:46	WSD	
cis-1,2-Dichloroethylene	0.042	0.030	0.0084		0.17	0.12	0.6	12/12/11 21:46	WSD	
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/12/11 21:46	WSD	
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/12/11 21:46	WSD	
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 21:46	WSD	
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 21:46	WSD	
Ethanol	1.1	1.2	0.14	J	2.1	2.3	0.6	12/12/11 21:46	WSD	
Ethyl Acetate	ND	0.030	0.016		ND	0.11	0.6	12/12/11 21:46	WSD	
Ethylbenzene	0.028	0.030	0.0084	J	0.12	0.13	0.6	12/12/11 21:46	WSD	
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	12/12/11 21:46	WSD	
Heptane	0.018	0.030	0.010	J	0.074	0.12	0.6	12/12/11 21:46	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/12/11 21:46	WSD	
Hexane	0.10	1.2	0.026	J	0.35	4.2	0.6	12/12/11 21:46	WSD	
2-Hexanone (MBK)	0.023	0.030	0.0090	L-03, J	0.093	0.12	0.6	12/12/11 21:46	WSD	
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	12/12/11 21:46	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-3-120811

Sample ID: 11L0398-03

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1033

Canister Size: 6 liter

Flow Controller ID: 4031

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/12/11 21:46	WSD	
Methylene Chloride	0.42	0.30	0.038		1.5	1.0	0.6	12/12/11 21:46	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 21:46	WSD	
4-Methyl-2-pentanone (MIBK)	0.020	0.030	0.0090	L-03, V-05, J	0.084	0.12	0.6	12/12/11 21:46	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	12/12/11 21:46	WSD	
Styrene	0.0096	0.030	0.0066	J	0.041	0.13	0.6	12/12/11 21:46	WSD	
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/12/11 21:46	WSD	
Tetrachloroethylene	0.13	0.030	0.0090		0.91	0.20	0.6	12/12/11 21:46	WSD	
Tetrahydrofuran	0.027	0.030	0.0096	J	0.080	0.088	0.6	12/12/11 21:46	WSD	
Toluene	0.41	0.030	0.0084		1.5	0.11	0.6	12/12/11 21:46	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	12/12/11 21:46	WSD	
1,1,1-Trichloroethane	0.020	0.030	0.010	J	0.11	0.16	0.6	12/12/11 21:46	WSD	
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/12/11 21:46	WSD	
Trichloroethylene	0.046	0.030	0.0084		0.25	0.16	0.6	12/12/11 21:46	WSD	
Trichlorofluoromethane (Freon 11)	0.19	0.030	0.019		1.0	0.17	0.6	12/12/11 21:46	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.089	0.030	0.010		0.69	0.23	0.6	12/12/11 21:46	WSD	
1,2,4-Trimethylbenzene	0.014	0.030	0.010	J	0.071	0.15	0.6	12/12/11 21:46	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	12/12/11 21:46	WSD	
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/12/11 21:46	WSD	
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/12/11 21:46	WSD	
m&p-Xylene	0.087	0.060	0.016		0.38	0.26	0.6	12/12/11 21:46	WSD	
o-Xylene	0.031	0.030	0.0078		0.13	0.13	0.6	12/12/11 21:46	WSD	

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

102

70-130

12/12/11 21:46

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-4-120811

Sample ID: 11L0398-04

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:34

Sample Description/Location:

Sub Description/Location:

Canister ID: 1844

Canister Size: 6 liter

Flow Controller ID: 4074

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	3.1	1.2	0.14		7.4	2.9	0.6	12/12/11 22:33	WSD	
Benzene	0.12	0.030	0.016		0.38	0.096	0.6	12/12/11 22:33	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/12/11 22:33	WSD	
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/12/11 22:33	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/12/11 22:33	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/12/11 22:33	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/12/11 22:33	WSD	
2-Butanone (MEK)	0.35	1.2	0.023	J	1.0	3.5	0.6	12/12/11 22:33	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	12/12/11 22:33	WSD	
Carbon Tetrachloride	0.077	0.030	0.0084		0.48	0.19	0.6	12/12/11 22:33	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/12/11 22:33	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/12/11 22:33	WSD	
Chloroform	0.017	0.030	0.011	J	0.085	0.15	0.6	12/12/11 22:33	WSD	
Chloromethane	0.67	0.030	0.015		1.4	0.062	0.6	12/12/11 22:33	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/12/11 22:33	WSD	
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/12/11 22:33	WSD	
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/12/11 22:33	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	12/12/11 22:33	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/12/11 22:33	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/12/11 22:33	WSD	
Dichlorodifluoromethane (Freon 12)	0.57	0.030	0.013		2.8	0.15	0.6	12/12/11 22:33	WSD	
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 22:33	WSD	
1,2-Dichloroethane	0.016	0.030	0.010	J	0.063	0.12	0.6	12/12/11 22:33	WSD	
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/12/11 22:33	WSD	
cis-1,2-Dichloroethylene	0.049	0.030	0.0084		0.19	0.12	0.6	12/12/11 22:33	WSD	
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/12/11 22:33	WSD	
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/12/11 22:33	WSD	
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 22:33	WSD	
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/12/11 22:33	WSD	
Ethanol	1.3	1.2	0.14		2.4	2.3	0.6	12/12/11 22:33	WSD	
Ethyl Acetate	0.045	0.030	0.016		0.16	0.11	0.6	12/12/11 22:33	WSD	
Ethylbenzene	0.037	0.030	0.0084		0.16	0.13	0.6	12/12/11 22:33	WSD	
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	12/12/11 22:33	WSD	
Heptane	0.017	0.030	0.010	J	0.071	0.12	0.6	12/12/11 22:33	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/12/11 22:33	WSD	
Hexane	0.098	1.2	0.026	J	0.35	4.2	0.6	12/12/11 22:33	WSD	
2-Hexanone (MBK)	0.021	0.030	0.0090	L-03, J	0.086	0.12	0.6	12/12/11 22:33	WSD	
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	12/12/11 22:33	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-4-120811

Sample ID: 11L0398-04

Sample Matrix: Indoor air

Sampled: 12/8/2011 09:34

Sample Description/Location:

Sub Description/Location:

Canister ID: 1844

Canister Size: 6 liter

Flow Controller ID: 4074

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/12/11 22:33	WSD	
Methylene Chloride	0.42	0.30	0.038		1.5	1.0	0.6	12/12/11 22:33	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/12/11 22:33	WSD	
4-Methyl-2-pentanone (MIBK)	0.024	0.030	0.0090	L-03, V-05, J	0.098	0.12	0.6	12/12/11 22:33	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	12/12/11 22:33	WSD	
Styrene	0.018	0.030	0.0066	J	0.077	0.13	0.6	12/12/11 22:33	WSD	
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/12/11 22:33	WSD	
Tetrachloroethylene	0.17	0.030	0.0090		1.2	0.20	0.6	12/12/11 22:33	WSD	
Tetrahydrofuran	0.026	0.030	0.0096	J	0.076	0.088	0.6	12/12/11 22:33	WSD	
Toluene	0.43	0.030	0.0084		1.6	0.11	0.6	12/12/11 22:33	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	12/12/11 22:33	WSD	
1,1,1-Trichloroethane	0.026	0.030	0.010	J	0.14	0.16	0.6	12/12/11 22:33	WSD	
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/12/11 22:33	WSD	
Trichloroethylene	0.065	0.030	0.0084		0.35	0.16	0.6	12/12/11 22:33	WSD	
Trichlorofluoromethane (Freon 11)	0.23	0.030	0.019		1.3	0.17	0.6	12/12/11 22:33	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.093	0.030	0.010		0.71	0.23	0.6	12/12/11 22:33	WSD	
1,2,4-Trimethylbenzene	0.019	0.030	0.010	J	0.094	0.15	0.6	12/12/11 22:33	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	12/12/11 22:33	WSD	
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/12/11 22:33	WSD	
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/12/11 22:33	WSD	
m&p-Xylene	0.094	0.060	0.016		0.41	0.26	0.6	12/12/11 22:33	WSD	
o-Xylene	0.034	0.030	0.0078		0.15	0.13	0.6	12/12/11 22:33	WSD	

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

101

70-130

12/12/11 22:33

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-5-120811

Sample ID: 11L0398-05

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:21

Sample Description/Location:

Sub Description/Location:

Canister ID: 1012

Canister Size: 6 liter

Flow Controller ID: 4084

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	2.8	1.2	0.14		6.6	2.9		0.6	12/12/11 23:20	WSD
Benzene	0.12	0.030	0.016		0.38	0.096		0.6	12/12/11 23:20	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16		0.6	12/12/11 23:20	WSD
Bromodichloromethane	ND	0.030	0.0084		ND	0.20		0.6	12/12/11 23:20	WSD
Bromoform	ND	0.030	0.0078		ND	0.31		0.6	12/12/11 23:20	WSD
Bromomethane	ND	0.030	0.029		ND	0.12		0.6	12/12/11 23:20	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066		0.6	12/12/11 23:20	WSD
2-Butanone (MEK)	0.33	1.2	0.023	J	0.98	3.5		0.6	12/12/11 23:20	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93		0.6	12/12/11 23:20	WSD
Carbon Tetrachloride	0.078	0.030	0.0084		0.49	0.19		0.6	12/12/11 23:20	WSD
Chlorobenzene	0.10	0.030	0.025		0.48	0.14		0.6	12/12/11 23:20	WSD
Chloroethane	ND	0.030	0.017		ND	0.079		0.6	12/12/11 23:20	WSD
Chloroform	0.10	0.030	0.011		0.49	0.15		0.6	12/12/11 23:20	WSD
Chloromethane	0.48	0.030	0.015		1.00	0.062		0.6	12/12/11 23:20	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10		0.6	12/12/11 23:20	WSD
Dibromochloromethane	ND	0.030	0.0072		ND	0.26		0.6	12/12/11 23:20	WSD
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23		0.6	12/12/11 23:20	WSD
1,2-Dichlorobenzene	3.8	0.030	0.016		23	0.18		0.6	12/12/11 23:20	WSD
1,3-Dichlorobenzene	0.013	0.030	0.0084	J	0.076	0.18		0.6	12/12/11 23:20	WSD
1,4-Dichlorobenzene	0.062	0.030	0.0078		0.37	0.18		0.6	12/12/11 23:20	WSD
Dichlorodifluoromethane (Freon 12)	0.53	0.030	0.013		2.6	0.15		0.6	12/12/11 23:20	WSD
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12		0.6	12/12/11 23:20	WSD
1,2-Dichloroethane	0.016	0.030	0.010	J	0.066	0.12		0.6	12/12/11 23:20	WSD
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12		0.6	12/12/11 23:20	WSD
cis-1,2-Dichloroethylene	0.046	0.030	0.0084		0.18	0.12		0.6	12/12/11 23:20	WSD
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12		0.6	12/12/11 23:20	WSD
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14		0.6	12/12/11 23:20	WSD
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14		0.6	12/12/11 23:20	WSD
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14		0.6	12/12/11 23:20	WSD
Ethanol	2.9	1.2	0.14		5.4	2.3		0.6	12/12/11 23:20	WSD
Ethyl Acetate	ND	0.030	0.016		ND	0.11		0.6	12/12/11 23:20	WSD
Ethylbenzene	0.27	0.030	0.0084		1.2	0.13		0.6	12/12/11 23:20	WSD
4-Ethyltoluene	0.052	0.030	0.011		0.25	0.15		0.6	12/12/11 23:20	WSD
Heptane	0.020	0.030	0.010	J	0.081	0.12		0.6	12/12/11 23:20	WSD
Hexachlorobutadiene	0.016	0.030	0.011	J	0.17	0.32		0.6	12/12/11 23:20	WSD
Hexane	0.10	1.2	0.026	J	0.36	4.2		0.6	12/12/11 23:20	WSD
2-Hexanone (MBK)	0.032	0.030	0.0090	L-03	0.13	0.12		0.6	12/12/11 23:20	WSD
Isopropanol	ND	1.2	0.018		ND	2.9		0.6	12/12/11 23:20	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-5-120811

Sample ID: 11L0398-05

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:21

Sample Description/Location:

Sub Description/Location:

Canister ID: 1012

Canister Size: 6 liter

Flow Controller ID: 4084

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			Flag	ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL			Results	RL				
Methyl tert-Butyl Ether (MTBE)	0.011	0.030	0.0084	J		0.039	0.11		0.6	12/12/11 23:20	WSD
Methylene Chloride	0.45	0.30	0.038			1.6	1.0		0.6	12/12/11 23:20	WSD
Methyl methacrylate	ND	0.030	0.0090			ND	0.12		0.6	12/12/11 23:20	WSD
4-Methyl-2-pentanone (MIBK)	0.032	0.030	0.0090	L-03, V-05		0.13	0.12		0.6	12/12/11 23:20	WSD
Propene	ND	1.2	0.023			ND	2.1		0.6	12/12/11 23:20	WSD
Styrene	0.24	0.030	0.0066			1.0	0.13		0.6	12/12/11 23:20	WSD
1,1,2,2-Tetrachloroethane	0.023	0.030	0.010	J		0.16	0.21		0.6	12/12/11 23:20	WSD
Tetrachloroethylene	0.84	0.030	0.0090			5.7	0.20		0.6	12/12/11 23:20	WSD
Tetrahydrofuran	0.034	0.030	0.0096			0.10	0.088		0.6	12/12/11 23:20	WSD
Toluene	0.51	0.030	0.0084			1.9	0.11		0.6	12/12/11 23:20	WSD
1,2,4-Trichlorobenzene	3.0	0.060	0.011			22	0.45		0.6	12/12/11 23:20	WSD
1,1,1-Trichloroethane	0.027	0.030	0.010	J		0.15	0.16		0.6	12/12/11 23:20	WSD
1,1,2-Trichloroethane	0.025	0.030	0.0096	J		0.14	0.16		0.6	12/12/11 23:20	WSD
Trichloroethylene	0.12	0.030	0.0084			0.63	0.16		0.6	12/12/11 23:20	WSD
Trichlorofluoromethane (Freon 11)	0.19	0.030	0.019			1.1	0.17		0.6	12/12/11 23:20	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.090	0.030	0.010			0.69	0.23		0.6	12/12/11 23:20	WSD
1,2,4-Trimethylbenzene	0.27	0.030	0.010			1.3	0.15		0.6	12/12/11 23:20	WSD
1,3,5-Trimethylbenzene	0.079	0.030	0.0090			0.39	0.15		0.6	12/12/11 23:20	WSD
Vinyl Acetate	ND	0.030	0.015			ND	0.11		0.6	12/12/11 23:20	WSD
Vinyl Chloride	ND	0.030	0.015			ND	0.077		0.6	12/12/11 23:20	WSD
m&p-Xylene	0.69	0.060	0.016			3.0	0.26		0.6	12/12/11 23:20	WSD
o-Xylene	0.24	0.030	0.0078			1.0	0.13		0.6	12/12/11 23:20	WSD

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

103

70-130

12/12/11 23:20

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-6-120811

Sample ID: 11L0398-06

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:25

Sample Description/Location:

Sub Description/Location:

Canister ID: 1138

Canister Size: 6 liter

Flow Controller ID: 4083

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	4.2	1.2	0.14		10	2.9	0.6	12/13/11 1:42	WSD
Benzene	0.13	0.030	0.016		0.42	0.096	0.6	12/13/11 1:42	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/13/11 1:42	WSD
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/13/11 1:42	WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/13/11 1:42	WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/13/11 1:42	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/13/11 1:42	WSD
2-Butanone (MEK)	0.44	1.2	0.023	J	1.3	3.5	0.6	12/13/11 1:42	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	12/13/11 1:42	WSD
Carbon Tetrachloride	0.074	0.030	0.0084		0.46	0.19	0.6	12/13/11 1:42	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/13/11 1:42	WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/13/11 1:42	WSD
Chloroform	0.020	0.030	0.011	J	0.100	0.15	0.6	12/13/11 1:42	WSD
Chloromethane	0.61	0.030	0.015		1.3	0.062	0.6	12/13/11 1:42	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/13/11 1:42	WSD
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/13/11 1:42	WSD
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/13/11 1:42	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	12/13/11 1:42	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/13/11 1:42	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/13/11 1:42	WSD
Dichlorodifluoromethane (Freon 12)	0.58	0.030	0.013		2.9	0.15	0.6	12/13/11 1:42	WSD
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12	0.6	12/13/11 1:42	WSD
1,2-Dichloroethane	0.014	0.030	0.010	J	0.056	0.12	0.6	12/13/11 1:42	WSD
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/13/11 1:42	WSD
cis-1,2-Dichloroethylene	0.025	0.030	0.0084	J	0.098	0.12	0.6	12/13/11 1:42	WSD
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/13/11 1:42	WSD
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/13/11 1:42	WSD
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 1:42	WSD
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 1:42	WSD
Ethanol	13	1.2	0.14		24	2.3	0.6	12/13/11 1:42	WSD
Ethyl Acetate	0.13	0.030	0.016		0.48	0.11	0.6	12/13/11 1:42	WSD
Ethylbenzene	0.035	0.030	0.0084		0.15	0.13	0.6	12/13/11 1:42	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	12/13/11 1:42	WSD
Heptane	0.027	0.030	0.010	J	0.11	0.12	0.6	12/13/11 1:42	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/13/11 1:42	WSD
Hexane	0.12	1.2	0.026	J	0.41	4.2	0.6	12/13/11 1:42	WSD
2-Hexanone (MBK)	0.037	0.030	0.0090	L-03	0.15	0.12	0.6	12/13/11 1:42	WSD
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	12/13/11 1:42	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-6-120811

Sample ID: 11L0398-06

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:25

Sample Description/Location:

Sub Description/Location:

Canister ID: 1138

Canister Size: 6 liter

Flow Controller ID: 4083

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/13/11 1:42	WSD
Methylene Chloride	0.44	0.30	0.038		1.5	1.0	0.6	12/13/11 1:42	WSD
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/13/11 1:42	WSD
4-Methyl-2-pentanone (MIBK)	0.031	0.030	0.0090	L-03, V-05	0.13	0.12	0.6	12/13/11 1:42	WSD
Propene	ND	1.2	0.023		ND	2.1	0.6	12/13/11 1:42	WSD
Styrene	0.029	0.030	0.0066	J	0.13	0.13	0.6	12/13/11 1:42	WSD
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/13/11 1:42	WSD
Tetrachloroethylene	0.10	0.030	0.0090		0.68	0.20	0.6	12/13/11 1:42	WSD
Tetrahydrofuran	0.041	0.030	0.0096		0.12	0.088	0.6	12/13/11 1:42	WSD
Toluene	0.32	0.030	0.0084		1.2	0.11	0.6	12/13/11 1:42	WSD
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	12/13/11 1:42	WSD
1,1,1-Trichloroethane	0.016	0.030	0.010	J	0.085	0.16	0.6	12/13/11 1:42	WSD
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/13/11 1:42	WSD
Trichloroethylene	0.036	0.030	0.0084		0.19	0.16	0.6	12/13/11 1:42	WSD
Trichlorofluoromethane (Freon 11)	0.25	0.030	0.019		1.4	0.17	0.6	12/13/11 1:42	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.089	0.030	0.010		0.68	0.23	0.6	12/13/11 1:42	WSD
1,2,4-Trimethylbenzene	0.032	0.030	0.010		0.16	0.15	0.6	12/13/11 1:42	WSD
1,3,5-Trimethylbenzene	0.012	0.030	0.0090	J	0.059	0.15	0.6	12/13/11 1:42	WSD
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/13/11 1:42	WSD
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/13/11 1:42	WSD
m&p-Xylene	0.10	0.060	0.016		0.45	0.26	0.6	12/13/11 1:42	WSD
o-Xylene	0.040	0.030	0.0078		0.17	0.13	0.6	12/13/11 1:42	WSD

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

104

70-130

12/13/11 1:42

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-7-120811

Sample ID: 11L0398-07

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1662

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -27.5

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	7.2	1.2	0.14		17	2.9	0.6	12/13/11 0:54	WSD
Benzene	0.14	0.030	0.016		0.44	0.096	0.6	12/13/11 0:54	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/13/11 0:54	WSD
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/13/11 0:54	WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/13/11 0:54	WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/13/11 0:54	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/13/11 0:54	WSD
2-Butanone (MEK)	0.70	1.2	0.023	J	2.1	3.5	0.6	12/13/11 0:54	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	12/13/11 0:54	WSD
Carbon Tetrachloride	0.071	0.030	0.0084		0.45	0.19	0.6	12/13/11 0:54	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/13/11 0:54	WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/13/11 0:54	WSD
Chloroform	0.025	0.030	0.011	J	0.12	0.15	0.6	12/13/11 0:54	WSD
Chloromethane	0.62	0.030	0.015		1.3	0.062	0.6	12/13/11 0:54	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/13/11 0:54	WSD
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/13/11 0:54	WSD
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/13/11 0:54	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	12/13/11 0:54	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/13/11 0:54	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/13/11 0:54	WSD
Dichlorodifluoromethane (Freon 12)	0.56	0.030	0.013		2.8	0.15	0.6	12/13/11 0:54	WSD
1,1-Dichloroethane	ND	0.030	0.0090		ND	0.12	0.6	12/13/11 0:54	WSD
1,2-Dichloroethane	0.017	0.030	0.010	J	0.070	0.12	0.6	12/13/11 0:54	WSD
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/13/11 0:54	WSD
cis-1,2-Dichloroethylene	0.016	0.030	0.0084	J	0.064	0.12	0.6	12/13/11 0:54	WSD
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/13/11 0:54	WSD
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/13/11 0:54	WSD
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 0:54	WSD
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 0:54	WSD
Ethanol	32	1.2	0.14		60	2.3	0.6	12/13/11 0:54	WSD
Ethyl Acetate	0.49	0.030	0.016		1.8	0.11	0.6	12/13/11 0:54	WSD
Ethylbenzene	0.056	0.030	0.0084		0.24	0.13	0.6	12/13/11 0:54	WSD
4-Ethyltoluene	0.015	0.030	0.011	J	0.074	0.15	0.6	12/13/11 0:54	WSD
Heptane	0.11	0.030	0.010		0.46	0.12	0.6	12/13/11 0:54	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/13/11 0:54	WSD
Hexane	1.1	1.2	0.026	J	3.9	4.2	0.6	12/13/11 0:54	WSD
2-Hexanone (MBK)	ND	0.030	0.0090	L-03	ND	0.12	0.6	12/13/11 0:54	WSD
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	12/13/11 0:54	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: IA-7-120811

Sample ID: 11L0398-07

Sample Matrix: Indoor air

Sampled: 12/8/2011 11:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1662

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -27.5

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			Flag	ug/m3			Date/Time	
		RL	MDL			Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084			ND	0.11	0.6	12/13/11 0:54	WSD
Methylene Chloride	3.9	0.30	0.038			13	1.0	0.6	12/13/11 0:54	WSD
Methyl methacrylate	ND	0.030	0.0090			ND	0.12	0.6	12/13/11 0:54	WSD
4-Methyl-2-pentanone (MIBK)	0.036	0.030	0.0090	L-03, V-05		0.15	0.12	0.6	12/13/11 0:54	WSD
Propene	ND	1.2	0.023			ND	2.1	0.6	12/13/11 0:54	WSD
Styrene	0.042	0.030	0.0066			0.18	0.13	0.6	12/13/11 0:54	WSD
1,1,2,2-Tetrachloroethane	ND	0.030	0.010			ND	0.21	0.6	12/13/11 0:54	WSD
Tetrachloroethylene	0.098	0.030	0.0090			0.66	0.20	0.6	12/13/11 0:54	WSD
Tetrahydrofuran	ND	0.030	0.0096			ND	0.088	0.6	12/13/11 0:54	WSD
Toluene	0.33	0.030	0.0084			1.2	0.11	0.6	12/13/11 0:54	WSD
1,2,4-Trichlorobenzene	ND	0.060	0.011			ND	0.45	0.6	12/13/11 0:54	WSD
1,1,1-Trichloroethane	0.013	0.030	0.010	J		0.069	0.16	0.6	12/13/11 0:54	WSD
1,1,2-Trichloroethane	ND	0.030	0.0096			ND	0.16	0.6	12/13/11 0:54	WSD
Trichloroethylene	0.031	0.030	0.0084			0.16	0.16	0.6	12/13/11 0:54	WSD
Trichlorofluoromethane (Freon 11)	0.23	0.030	0.019			1.3	0.17	0.6	12/13/11 0:54	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.088	0.030	0.010			0.67	0.23	0.6	12/13/11 0:54	WSD
1,2,4-Trimethylbenzene	0.065	0.030	0.010			0.32	0.15	0.6	12/13/11 0:54	WSD
1,3,5-Trimethylbenzene	0.020	0.030	0.0090	J		0.10	0.15	0.6	12/13/11 0:54	WSD
Vinyl Acetate	ND	0.030	0.015			ND	0.11	0.6	12/13/11 0:54	WSD
Vinyl Chloride	ND	0.030	0.015			ND	0.077	0.6	12/13/11 0:54	WSD
m&p-Xylene	0.17	0.060	0.016			0.72	0.26	0.6	12/13/11 0:54	WSD
o-Xylene	0.070	0.030	0.0078			0.30	0.13	0.6	12/13/11 0:54	WSD

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)	105	70-130	12/13/11 0:54
--------------------------	-----	--------	---------------

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: AA-1-120811

Sample ID: 11L0398-08

Sample Matrix: Ambient Air

Sampled: 12/8/2011 12:29

Sample Description/Location:

Sub Description/Location:

Canister ID: 1783

Canister Size: 6 liter

Flow Controller ID: 4098

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	2.1	1.2	0.14		4.9	2.9	0.6	12/13/11 0:07	WSD
Benzene	0.12	0.030	0.016		0.40	0.096	0.6	12/13/11 0:07	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	12/13/11 0:07	WSD
Bromodichloromethane	ND	0.030	0.0084		ND	0.20	0.6	12/13/11 0:07	WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	12/13/11 0:07	WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	12/13/11 0:07	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	12/13/11 0:07	WSD
2-Butanone (MEK)	0.12	1.2	0.023	J	0.35	3.5	0.6	12/13/11 0:07	WSD
Carbon Disulfide	0.019	0.30	0.0084	J	0.058	0.93	0.6	12/13/11 0:07	WSD
Carbon Tetrachloride	0.079	0.030	0.0084		0.49	0.19	0.6	12/13/11 0:07	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	12/13/11 0:07	WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	12/13/11 0:07	WSD
Chloroform	0.019	0.030	0.011	J	0.094	0.15	0.6	12/13/11 0:07	WSD
Chloromethane	ND	0.030	0.015		ND	0.062	0.6	12/13/11 0:07	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	12/13/11 0:07	WSD
Dibromochloromethane	ND	0.030	0.0072		ND	0.26	0.6	12/13/11 0:07	WSD
1,2-Dibromoethane (EDB)	ND	0.030	0.0084		ND	0.23	0.6	12/13/11 0:07	WSD
1,2-Dichlorobenzene	0.056	0.030	0.016		0.34	0.18	0.6	12/13/11 0:07	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	12/13/11 0:07	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	12/13/11 0:07	WSD
Dichlorodifluoromethane (Freon 12)	0.51	0.030	0.013		2.5	0.15	0.6	12/13/11 0:07	WSD
1,1-Dichloroethane	0.016	0.030	0.0090	J	0.063	0.12	0.6	12/13/11 0:07	WSD
1,2-Dichloroethane	0.016	0.030	0.010	J	0.066	0.12	0.6	12/13/11 0:07	WSD
1,1-Dichloroethylene	ND	0.030	0.0096		ND	0.12	0.6	12/13/11 0:07	WSD
cis-1,2-Dichloroethylene	0.031	0.030	0.0084		0.12	0.12	0.6	12/13/11 0:07	WSD
trans-1,2-Dichloroethylene	ND	0.030	0.010		ND	0.12	0.6	12/13/11 0:07	WSD
1,2-Dichloropropane	ND	0.030	0.012		ND	0.14	0.6	12/13/11 0:07	WSD
cis-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 0:07	WSD
trans-1,3-Dichloropropene	ND	0.030	0.0060		ND	0.14	0.6	12/13/11 0:07	WSD
Ethanol	0.80	1.2	0.14	J	1.5	2.3	0.6	12/13/11 0:07	WSD
Ethyl Acetate	0.13	0.030	0.016		0.46	0.11	0.6	12/13/11 0:07	WSD
Ethylbenzene	0.072	0.030	0.0084		0.31	0.13	0.6	12/13/11 0:07	WSD
4-Ethyltoluene	0.011	0.030	0.011	J	0.053	0.15	0.6	12/13/11 0:07	WSD
Heptane	0.028	0.030	0.010	J	0.12	0.12	0.6	12/13/11 0:07	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	12/13/11 0:07	WSD
Hexane	0.13	1.2	0.026	J	0.47	4.2	0.6	12/13/11 0:07	WSD
2-Hexanone (MBK)	ND	0.030	0.0090	L-03	ND	0.12	0.6	12/13/11 0:07	WSD
Isopropanol	0.24	1.2	0.018	J	0.60	2.9	0.6	12/13/11 0:07	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: AA-1-120811

Sample ID: 11L0398-08

Sample Matrix: Ambient Air

Sampled: 12/8/2011 12:29

Sample Description/Location:

Sub Description/Location:

Canister ID: 1783

Canister Size: 6 liter

Flow Controller ID: 4098

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	12/13/11 0:07	WSD	
Methylene Chloride	0.44	0.30	0.038		1.5	1.0	0.6	12/13/11 0:07	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	12/13/11 0:07	WSD	
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.0090	L-03, V-05	ND	0.12	0.6	12/13/11 0:07	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	12/13/11 0:07	WSD	
Styrene	0.088	0.030	0.0066		0.37	0.13	0.6	12/13/11 0:07	WSD	
1,1,2,2-Tetrachloroethane	ND	0.030	0.010		ND	0.21	0.6	12/13/11 0:07	WSD	
Tetrachloroethylene	0.11	0.030	0.0090		0.73	0.20	0.6	12/13/11 0:07	WSD	
Tetrahydrofuran	0.019	0.030	0.0096	J	0.057	0.088	0.6	12/13/11 0:07	WSD	
Toluene	0.15	0.030	0.0084		0.56	0.11	0.6	12/13/11 0:07	WSD	
1,2,4-Trichlorobenzene	0.083	0.060	0.011		0.62	0.45	0.6	12/13/11 0:07	WSD	
1,1,1-Trichloroethane	0.054	0.030	0.010		0.29	0.16	0.6	12/13/11 0:07	WSD	
1,1,2-Trichloroethane	ND	0.030	0.0096		ND	0.16	0.6	12/13/11 0:07	WSD	
Trichloroethylene	0.12	0.030	0.0084		0.67	0.16	0.6	12/13/11 0:07	WSD	
Trichlorofluoromethane (Freon 11)	0.30	0.030	0.019		1.7	0.17	0.6	12/13/11 0:07	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.12	0.030	0.010		0.89	0.23	0.6	12/13/11 0:07	WSD	
1,2,4-Trimethylbenzene	0.032	0.030	0.010		0.16	0.15	0.6	12/13/11 0:07	WSD	
1,3,5-Trimethylbenzene	0.014	0.030	0.0090	J	0.068	0.15	0.6	12/13/11 0:07	WSD	
Vinyl Acetate	ND	0.030	0.015		ND	0.11	0.6	12/13/11 0:07	WSD	
Vinyl Chloride	ND	0.030	0.015		ND	0.077	0.6	12/13/11 0:07	WSD	
m&p-Xylene	0.094	0.060	0.016		0.41	0.26	0.6	12/13/11 0:07	WSD	
o-Xylene	0.050	0.030	0.0078		0.22	0.13	0.6	12/13/11 0:07	WSD	

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)	103	70-130	12/13/11 0:07
--------------------------	-----	--------	---------------

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-5-120811

Sample ID: 11L0398-09

Sample Matrix: Soil Gas

Sampled: 12/8/2011 10:23

Sample Description/Location:

Sub Description/Location:

Canister ID: 1674

Canister Size: 6 liter

Flow Controller ID: 4066

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -25

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	300	20	2.3	L-05	710	48		10	12/14/11 13:57	WSD
Benzene	0.87	0.50	0.26		2.8	1.6		10	12/14/11 13:57	WSD
Benzyl chloride	ND	0.50	0.090		ND	2.6		10	12/14/11 13:57	WSD
Bromodichloromethane	ND	0.50	0.14		ND	3.4		10	12/14/11 13:57	WSD
Bromoform	ND	0.50	0.13		ND	5.2		10	12/14/11 13:57	WSD
Bromomethane	ND	0.50	0.48		ND	1.9		10	12/14/11 13:57	WSD
1,3-Butadiene	ND	0.50	0.29		ND	1.1		10	12/14/11 13:57	WSD
2-Butanone (MEK)	910	20	0.38		2700	59		10	12/14/11 13:57	WSD
Carbon Disulfide	4.2	5.0	0.14	J	13	16		10	12/14/11 13:57	WSD
Carbon Tetrachloride	0.19	0.50	0.14	J	1.2	3.1		10	12/14/11 13:57	WSD
Chlorobenzene	ND	0.50	0.42		ND	2.3		10	12/14/11 13:57	WSD
Chloroethane	ND	0.50	0.28		ND	1.3		10	12/14/11 13:57	WSD
Chloroform	0.22	0.50	0.18	J	1.1	2.4		10	12/14/11 13:57	WSD
Chloromethane	ND	0.50	0.25		ND	1.0		10	12/14/11 13:57	WSD
Cyclohexane	ND	0.50	0.48		ND	1.7		10	12/14/11 13:57	WSD
Dibromochloromethane	ND	0.50	0.12		ND	4.3		10	12/14/11 13:57	WSD
1,2-Dibromoethane (EDB)	ND	0.50	0.14		ND	3.8		10	12/14/11 13:57	WSD
1,2-Dichlorobenzene	ND	0.50	0.26		ND	3.0		10	12/14/11 13:57	WSD
1,3-Dichlorobenzene	ND	0.50	0.14		ND	3.0		10	12/14/11 13:57	WSD
1,4-Dichlorobenzene	ND	0.50	0.13		ND	3.0		10	12/14/11 13:57	WSD
Dichlorodifluoromethane (Freon 12)	0.57	0.50	0.21		2.8	2.5		10	12/14/11 13:57	WSD
1,1-Dichloroethane	4.0	0.50	0.15		16	2.0		10	12/14/11 13:57	WSD
1,2-Dichloroethane	ND	0.50	0.17		ND	2.0		10	12/14/11 13:57	WSD
1,1-Dichloroethylene	1.2	0.50	0.16		5.0	2.0		10	12/14/11 13:57	WSD
cis-1,2-Dichloroethylene	2.8	0.50	0.14		11	2.0		10	12/14/11 13:57	WSD
trans-1,2-Dichloroethylene	ND	0.50	0.17		ND	2.0		10	12/14/11 13:57	WSD
1,2-Dichloropropane	ND	0.50	0.20		ND	2.3		10	12/14/11 13:57	WSD
cis-1,3-Dichloropropene	ND	0.50	0.10		ND	2.3		10	12/14/11 13:57	WSD
trans-1,3-Dichloropropene	ND	0.50	0.10		ND	2.3		10	12/14/11 13:57	WSD
Ethanol	6.5	20	2.4	J	12	38		10	12/14/11 13:57	WSD
Ethyl Acetate	1.0	0.50	0.26		3.6	1.8		10	12/14/11 13:57	WSD
Ethylbenzene	ND	0.50	0.14		ND	2.2		10	12/14/11 13:57	WSD
4-Ethyltoluene	ND	0.50	0.18		ND	2.5		10	12/14/11 13:57	WSD
Heptane	ND	0.50	0.17		ND	2.0		10	12/14/11 13:57	WSD
Hexachlorobutadiene	0.39	0.50	0.18	J	4.2	5.3		10	12/14/11 13:57	WSD
Hexane	ND	20	0.44		ND	70		10	12/14/11 13:57	WSD
2-Hexanone (MBK)	ND	0.50	0.15		ND	2.0		10	12/14/11 13:57	WSD
Isopropanol	ND	20	0.30		ND	49		10	12/14/11 13:57	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-5-120811

Sample ID: 11L0398-09

Sample Matrix: Soil Gas

Sampled: 12/8/2011 10:23

Sample Description/Location:

Sub Description/Location:

Canister ID: 1674

Canister Size: 6 liter

Flow Controller ID: 4066

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -25

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.50	0.14		ND	1.8		10	12/14/11 13:57	WSD
Methylene Chloride	1.2	5.0	0.64	J	4.2	17		10	12/14/11 13:57	WSD
Methyl methacrylate	ND	0.50	0.15		ND	2.0		10	12/14/11 13:57	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.50	0.15	L-03, V-05	ND	2.0		10	12/14/11 13:57	WSD
Propene	2.4	20	0.38	J	4.1	34		10	12/14/11 13:57	WSD
Styrene	ND	0.50	0.11		ND	2.1		10	12/14/11 13:57	WSD
1,1,2,2-Tetrachloroethane	ND	0.50	0.17		ND	3.4		10	12/14/11 13:57	WSD
Tetrachloroethylene	0.51	0.50	0.15		3.5	3.4		10	12/14/11 13:57	WSD
Tetrahydrofuran	3800	10	3.2		11000	29		200	12/13/11 12:51	WSD
Toluene	0.24	0.50	0.14	J	0.90	1.9		10	12/14/11 13:57	WSD
1,2,4-Trichlorobenzene	ND	1.0	0.19		ND	7.4		10	12/14/11 13:57	WSD
1,1,1-Trichloroethane	23	0.50	0.17		130	2.7		10	12/14/11 13:57	WSD
1,1,2-Trichloroethane	ND	0.50	0.16		ND	2.7		10	12/14/11 13:57	WSD
Trichloroethylene	54	0.50	0.14		290	2.7		10	12/14/11 13:57	WSD
Trichlorofluoromethane (Freon 11)	0.60	0.50	0.31	L-05	3.4	2.8		10	12/14/11 13:57	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	0.17		ND	3.8		10	12/14/11 13:57	WSD
1,2,4-Trimethylbenzene	ND	0.50	0.17		ND	2.5		10	12/14/11 13:57	WSD
1,3,5-Trimethylbenzene	ND	0.50	0.15		ND	2.5		10	12/14/11 13:57	WSD
Vinyl Acetate	ND	0.50	0.25		ND	1.8		10	12/14/11 13:57	WSD
Vinyl Chloride	ND	0.50	0.25		ND	1.3		10	12/14/11 13:57	WSD
m&p-Xylene	ND	1.0	0.26		ND	4.3		10	12/14/11 13:57	WSD
o-Xylene	ND	0.50	0.13		ND	2.2		10	12/14/11 13:57	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	12/13/11 12:51
4-Bromofluorobenzene (1)	101	70-130	12/14/11 13:57

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-6-120811

Sample ID: 11L0398-10

Sample Matrix: Soil Gas

Sampled: 12/8/2011 11:55

Sample Description/Location:

Sub Description/Location:

Canister ID: 1505

Canister Size: 6 liter

Flow Controller ID: 4079

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	8.9	20	2.3	L-05, J	21	48		10	12/14/11 14:35	WSD
Benzene	ND	0.50	0.26		ND	1.6		10	12/14/11 14:35	WSD
Benzyl chloride	ND	0.50	0.090		ND	2.6		10	12/14/11 14:35	WSD
Bromodichloromethane	ND	0.50	0.14		ND	3.4		10	12/14/11 14:35	WSD
Bromoform	ND	0.50	0.13		ND	5.2		10	12/14/11 14:35	WSD
Bromomethane	ND	0.50	0.48		ND	1.9		10	12/14/11 14:35	WSD
1,3-Butadiene	ND	0.50	0.29		ND	1.1		10	12/14/11 14:35	WSD
2-Butanone (MEK)	4.4	20	0.38	J	13	59		10	12/14/11 14:35	WSD
Carbon Disulfide	2.3	5.0	0.14	J	7.1	16		10	12/14/11 14:35	WSD
Carbon Tetrachloride	ND	0.50	0.14		ND	3.1		10	12/14/11 14:35	WSD
Chlorobenzene	ND	0.50	0.42		ND	2.3		10	12/14/11 14:35	WSD
Chloroethane	ND	0.50	0.28		ND	1.3		10	12/14/11 14:35	WSD
Chloroform	0.21	0.50	0.18	J	1.0	2.4		10	12/14/11 14:35	WSD
Chloromethane	1.4	0.50	0.25		2.9	1.0		10	12/14/11 14:35	WSD
Cyclohexane	ND	0.50	0.48		ND	1.7		10	12/14/11 14:35	WSD
Dibromochloromethane	ND	0.50	0.12		ND	4.3		10	12/14/11 14:35	WSD
1,2-Dibromoethane (EDB)	ND	0.50	0.14		ND	3.8		10	12/14/11 14:35	WSD
1,2-Dichlorobenzene	ND	0.50	0.26		ND	3.0		10	12/14/11 14:35	WSD
1,3-Dichlorobenzene	ND	0.50	0.14		ND	3.0		10	12/14/11 14:35	WSD
1,4-Dichlorobenzene	ND	0.50	0.13		ND	3.0		10	12/14/11 14:35	WSD
Dichlorodifluoromethane (Freon 12)	0.60	0.50	0.21		3.0	2.5		10	12/14/11 14:35	WSD
1,1-Dichloroethane	1.6	0.50	0.15		6.4	2.0		10	12/14/11 14:35	WSD
1,2-Dichloroethane	ND	0.50	0.17		ND	2.0		10	12/14/11 14:35	WSD
1,1-Dichloroethylene	ND	0.50	0.16		ND	2.0		10	12/14/11 14:35	WSD
cis-1,2-Dichloroethylene	0.21	0.50	0.14	J	0.83	2.0		10	12/14/11 14:35	WSD
trans-1,2-Dichloroethylene	ND	0.50	0.17		ND	2.0		10	12/14/11 14:35	WSD
1,2-Dichloropropane	ND	0.50	0.20		ND	2.3		10	12/14/11 14:35	WSD
cis-1,3-Dichloropropene	ND	0.50	0.10		ND	2.3		10	12/14/11 14:35	WSD
trans-1,3-Dichloropropene	ND	0.50	0.10		ND	2.3		10	12/14/11 14:35	WSD
Ethanol	ND	20	2.4		ND	38		10	12/14/11 14:35	WSD
Ethyl Acetate	ND	0.50	0.26		ND	1.8		10	12/14/11 14:35	WSD
Ethylbenzene	ND	0.50	0.14		ND	2.2		10	12/14/11 14:35	WSD
4-Ethyltoluene	ND	0.50	0.18		ND	2.5		10	12/14/11 14:35	WSD
Heptane	ND	0.50	0.17		ND	2.0		10	12/14/11 14:35	WSD
Hexachlorobutadiene	ND	0.50	0.18		ND	5.3		10	12/14/11 14:35	WSD
Hexane	ND	20	0.44		ND	70		10	12/14/11 14:35	WSD
2-Hexanone (MBK)	ND	0.50	0.15		ND	2.0		10	12/14/11 14:35	WSD
Isopropanol	ND	20	0.30		ND	49		10	12/14/11 14:35	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-6-120811

Sample ID: 11L0398-10

Sample Matrix: Soil Gas

Sampled: 12/8/2011 11:55

Sample Description/Location:

Sub Description/Location:

Canister ID: 1505

Canister Size: 6 liter

Flow Controller ID: 4079

Sample Type: 30 min

Work Order: 11L0398

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: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.50	0.14		ND	1.8		10	12/14/11 14:35	WSD
Methylene Chloride	1.0	5.0	0.64	J	3.6	17		10	12/14/11 14:35	WSD
Methyl methacrylate	ND	0.50	0.15		ND	2.0		10	12/14/11 14:35	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.50	0.15	L-03, V-05	ND	2.0		10	12/14/11 14:35	WSD
Propene	2.2	20	0.38	J	3.8	34		10	12/14/11 14:35	WSD
Styrene	ND	0.50	0.11		ND	2.1		10	12/14/11 14:35	WSD
1,1,2,2-Tetrachloroethane	ND	0.50	0.17		ND	3.4		10	12/14/11 14:35	WSD
Tetrachloroethylene	0.36	0.50	0.15	J	2.4	3.4		10	12/14/11 14:35	WSD
Tetrahydrofuran	1300	0.50	0.16		3900	1.5		10	12/14/11 14:35	WSD
Toluene	ND	0.50	0.14		ND	1.9		10	12/14/11 14:35	WSD
1,2,4-Trichlorobenzene	ND	1.0	0.19		ND	7.4		10	12/14/11 14:35	WSD
1,1,1-Trichloroethane	6.0	0.50	0.17		33	2.7		10	12/14/11 14:35	WSD
1,1,2-Trichloroethane	ND	0.50	0.16		ND	2.7		10	12/14/11 14:35	WSD
Trichloroethylene	12	0.50	0.14		66	2.7		10	12/14/11 14:35	WSD
Trichlorofluoromethane (Freon 11)	2.0	0.50	0.31	L-05	11	2.8		10	12/14/11 14:35	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	0.17		ND	3.8		10	12/14/11 14:35	WSD
1,2,4-Trimethylbenzene	ND	0.50	0.17		ND	2.5		10	12/14/11 14:35	WSD
1,3,5-Trimethylbenzene	ND	0.50	0.15		ND	2.5		10	12/14/11 14:35	WSD
Vinyl Acetate	ND	0.50	0.25		ND	1.8		10	12/14/11 14:35	WSD
Vinyl Chloride	ND	0.50	0.25		ND	1.3		10	12/14/11 14:35	WSD
m&p-Xylene	ND	1.0	0.26		ND	4.3		10	12/14/11 14:35	WSD
o-Xylene	ND	0.50	0.13		ND	2.2		10	12/14/11 14:35	WSD

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)	95.4	70-130	12/14/11 14:35
--------------------------	------	--------	----------------

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-7-120811

Sample ID: 11L0398-11

Sample Matrix: Soil Gas

Sampled: 12/8/2011 11:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1465

Canister Size: 6 liter

Flow Controller ID: 4067

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	5.1	4.0	0.46		12	9.5		2	12/13/11 11:08	WSD
Benzene	0.49	0.10	0.052		1.6	0.32		2	12/13/11 11:08	WSD
Benzyl chloride	ND	0.10	0.018		ND	0.52		2	12/13/11 11:08	WSD
Bromodichloromethane	ND	0.10	0.028		ND	0.67		2	12/13/11 11:08	WSD
Bromoform	ND	0.10	0.026		ND	1.0		2	12/13/11 11:08	WSD
Bromomethane	ND	0.10	0.096		ND	0.39		2	12/13/11 11:08	WSD
1,3-Butadiene	ND	0.10	0.058		ND	0.22		2	12/13/11 11:08	WSD
2-Butanone (MEK)	2.1	4.0	0.076	J	6.2	12		2	12/13/11 11:08	WSD
Carbon Disulfide	ND	1.0	0.028		ND	3.1		2	12/13/11 11:08	WSD
Carbon Tetrachloride	0.054	0.10	0.028	J	0.34	0.63		2	12/13/11 11:08	WSD
Chlorobenzene	ND	0.10	0.084		ND	0.46		2	12/13/11 11:08	WSD
Chloroethane	ND	0.10	0.056		ND	0.26		2	12/13/11 11:08	WSD
Chloroform	0.78	0.10	0.036		3.8	0.49		2	12/13/11 11:08	WSD
Chloromethane	ND	0.10	0.050		ND	0.21		2	12/13/11 11:08	WSD
Cyclohexane	ND	0.10	0.096		ND	0.34		2	12/13/11 11:08	WSD
Dibromochloromethane	ND	0.10	0.024		ND	0.85		2	12/13/11 11:08	WSD
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77		2	12/13/11 11:08	WSD
1,2-Dichlorobenzene	ND	0.10	0.052		ND	0.60		2	12/13/11 11:08	WSD
1,3-Dichlorobenzene	ND	0.10	0.028		ND	0.60		2	12/13/11 11:08	WSD
1,4-Dichlorobenzene	ND	0.10	0.026		ND	0.60		2	12/13/11 11:08	WSD
Dichlorodifluoromethane (Freon 12)	0.53	0.10	0.042		2.6	0.49		2	12/13/11 11:08	WSD
1,1-Dichloroethane	20	0.10	0.030		80	0.40		2	12/13/11 11:08	WSD
1,2-Dichloroethane	ND	0.10	0.034		ND	0.40		2	12/13/11 11:08	WSD
1,1-Dichloroethylene	0.034	0.10	0.032	J	0.13	0.40		2	12/13/11 11:08	WSD
cis-1,2-Dichloroethylene	25	0.10	0.028		99	0.40		2	12/13/11 11:08	WSD
trans-1,2-Dichloroethylene	14	0.10	0.034		54	0.40		2	12/13/11 11:08	WSD
1,2-Dichloropropane	ND	0.10	0.040		ND	0.46		2	12/13/11 11:08	WSD
cis-1,3-Dichloropropene	ND	0.10	0.020		ND	0.45		2	12/13/11 11:08	WSD
trans-1,3-Dichloropropene	ND	0.10	0.020		ND	0.45		2	12/13/11 11:08	WSD
Ethanol	12	4.0	0.47		23	7.5		2	12/13/11 11:08	WSD
Ethyl Acetate	ND	0.10	0.052		ND	0.36		2	12/13/11 11:08	WSD
Ethylbenzene	0.060	0.10	0.028	J	0.26	0.43		2	12/13/11 11:08	WSD
4-Ethyltoluene	ND	0.10	0.036		ND	0.49		2	12/13/11 11:08	WSD
Heptane	0.054	0.10	0.034	J	0.22	0.41		2	12/13/11 11:08	WSD
Hexachlorobutadiene	ND	0.10	0.036		ND	1.1		2	12/13/11 11:08	WSD
Hexane	ND	4.0	0.088		ND	14		2	12/13/11 11:08	WSD
2-Hexanone (MBK)	0.034	0.10	0.030	L-03, J	0.14	0.41		2	12/13/11 11:08	WSD
Isopropanol	ND	4.0	0.060		ND	9.8		2	12/13/11 11:08	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-7-120811

Sample ID: 11L0398-11

Sample Matrix: Soil Gas

Sampled: 12/8/2011 11:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1465

Canister Size: 6 liter

Flow Controller ID: 4067

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.028		ND	0.36		2	12/13/11 11:08	WSD
Methylene Chloride	0.43	1.0	0.13	J	1.5	3.5		2	12/13/11 11:08	WSD
Methyl methacrylate	ND	0.10	0.030		ND	0.41		2	12/13/11 11:08	WSD
4-Methyl-2-pentanone (MIBK)	0.032	0.10	0.030	L-03, V-05, J	0.13	0.41		2	12/13/11 11:08	WSD
Propene	ND	4.0	0.076		ND	6.9		2	12/13/11 11:08	WSD
Styrene	0.11	0.10	0.022		0.49	0.43		2	12/13/11 11:08	WSD
1,1,2,2-Tetrachloroethane	ND	0.10	0.034		ND	0.69		2	12/13/11 11:08	WSD
Tetrachloroethylene	25	0.10	0.030		170	0.68		2	12/13/11 11:08	WSD
Tetrahydrofuran	3.4	0.10	0.032		9.9	0.29		2	12/13/11 11:08	WSD
Toluene	0.28	0.10	0.028		1.1	0.38		2	12/13/11 11:08	WSD
1,2,4-Trichlorobenzene	ND	0.20	0.038		ND	1.5		2	12/13/11 11:08	WSD
1,1,1-Trichloroethane	12	0.10	0.034		66	0.55		2	12/13/11 11:08	WSD
1,1,2-Trichloroethane	ND	0.10	0.032		ND	0.55		2	12/13/11 11:08	WSD
Trichloroethylene	58	0.10	0.028		310	0.54		2	12/13/11 11:08	WSD
Trichlorofluoromethane (Freon 11)	180	1.0	0.62		1000	5.6		20	12/13/11 7:45	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.13	0.10	0.034		1.00	0.77		2	12/13/11 11:08	WSD
1,2,4-Trimethylbenzene	0.066	0.10	0.034	J	0.32	0.49		2	12/13/11 11:08	WSD
1,3,5-Trimethylbenzene	ND	0.10	0.030		ND	0.49		2	12/13/11 11:08	WSD
Vinyl Acetate	ND	0.10	0.050		ND	0.35		2	12/13/11 11:08	WSD
Vinyl Chloride	ND	0.10	0.050		ND	0.26		2	12/13/11 11:08	WSD
m&p-Xylene	0.19	0.20	0.052	J	0.82	0.87		2	12/13/11 11:08	WSD
o-Xylene	0.088	0.10	0.026	J	0.38	0.43		2	12/13/11 11:08	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	12/13/11 7:45
4-Bromofluorobenzene (1)	101	70-130	12/13/11 11:08

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-Combined-120811
Sample ID: 11L0398-12

Sample Matrix: Soil Gas

Sampled: 12/8/2011 12:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1165

Canister Size: 6 liter

Flow Controller ID: 4097

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -10

Receipt Vacuum(in Hg): -9

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			Flag	ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL			Results	RL				
Acetone	2.8	4.0	0.46	J		6.6	9.5		2	12/13/11 11:47	WSD
Benzene	0.18	0.10	0.052			0.56	0.32		2	12/13/11 11:47	WSD
Benzyl chloride	ND	0.10	0.018			ND	0.52		2	12/13/11 11:47	WSD
Bromodichloromethane	ND	0.10	0.028			ND	0.67		2	12/13/11 11:47	WSD
Bromoform	ND	0.10	0.026			ND	1.0		2	12/13/11 11:47	WSD
Bromomethane	ND	0.10	0.096			ND	0.39		2	12/13/11 11:47	WSD
1,3-Butadiene	ND	0.10	0.058			ND	0.22		2	12/13/11 11:47	WSD
2-Butanone (MEK)	0.44	4.0	0.076	J		1.3	12		2	12/13/11 11:47	WSD
Carbon Disulfide	ND	1.0	0.028			ND	3.1		2	12/13/11 11:47	WSD
Carbon Tetrachloride	0.076	0.10	0.028	J		0.48	0.63		2	12/13/11 11:47	WSD
Chlorobenzene	ND	0.10	0.084			ND	0.46		2	12/13/11 11:47	WSD
Chloroethane	0.79	0.10	0.056			2.1	0.26		2	12/13/11 11:47	WSD
Chloroform	0.55	0.10	0.036			2.7	0.49		2	12/13/11 11:47	WSD
Chloromethane	ND	0.10	0.050			ND	0.21		2	12/13/11 11:47	WSD
Cyclohexane	ND	0.10	0.096			ND	0.34		2	12/13/11 11:47	WSD
Dibromochloromethane	ND	0.10	0.024			ND	0.85		2	12/13/11 11:47	WSD
1,2-Dibromoethane (EDB)	ND	0.10	0.028			ND	0.77		2	12/13/11 11:47	WSD
1,2-Dichlorobenzene	ND	0.10	0.052			ND	0.60		2	12/13/11 11:47	WSD
1,3-Dichlorobenzene	ND	0.10	0.028			ND	0.60		2	12/13/11 11:47	WSD
1,4-Dichlorobenzene	ND	0.10	0.026			ND	0.60		2	12/13/11 11:47	WSD
Dichlorodifluoromethane (Freon 12)	0.58	0.10	0.042			2.9	0.49		2	12/13/11 11:47	WSD
1,1-Dichloroethane	17	0.10	0.030			70	0.40		2	12/13/11 11:47	WSD
1,2-Dichloroethane	ND	0.10	0.034			ND	0.40		2	12/13/11 11:47	WSD
1,1-Dichloroethylene	5.3	0.10	0.032			21	0.40		2	12/13/11 11:47	WSD
cis-1,2-Dichloroethylene	9.5	0.10	0.028			38	0.40		2	12/13/11 11:47	WSD
trans-1,2-Dichloroethylene	0.27	0.10	0.034			1.1	0.40		2	12/13/11 11:47	WSD
1,2-Dichloropropane	ND	0.10	0.040			ND	0.46		2	12/13/11 11:47	WSD
cis-1,3-Dichloropropene	ND	0.10	0.020			ND	0.45		2	12/13/11 11:47	WSD
trans-1,3-Dichloropropene	ND	0.10	0.020			ND	0.45		2	12/13/11 11:47	WSD
Ethanol	4.9	4.0	0.47			9.2	7.5		2	12/13/11 11:47	WSD
Ethyl Acetate	0.32	0.10	0.052			1.2	0.36		2	12/13/11 11:47	WSD
Ethylbenzene	0.13	0.10	0.028			0.58	0.43		2	12/13/11 11:47	WSD
4-Ethyltoluene	0.054	0.10	0.036	J		0.27	0.49		2	12/13/11 11:47	WSD
Heptane	0.056	0.10	0.034	J		0.23	0.41		2	12/13/11 11:47	WSD
Hexachlorobutadiene	ND	0.10	0.036			ND	1.1		2	12/13/11 11:47	WSD
Hexane	0.19	4.0	0.088	J		0.66	14		2	12/13/11 11:47	WSD
2-Hexanone (MBK)	0.040	0.10	0.030	L-03, J		0.16	0.41		2	12/13/11 11:47	WSD
Isopropanol	ND	4.0	0.060			ND	9.8		2	12/13/11 11:47	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI, Textron Gorham

Date Received: 12/9/2011

Field Sample #: EW-Combined-120811
Sample ID: 11L0398-12

Sample Matrix: Soil Gas

Sampled: 12/8/2011 12:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1165

Canister Size: 6 liter

Flow Controller ID: 4097

Sample Type: 30 min

Work Order: 11L0398

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -10

Receipt Vacuum(in Hg): -9

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling: <20%

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	0.066	0.10	0.028	J	0.24	0.36		2	12/13/11 11:47	WSD
Methylene Chloride	0.64	1.0	0.13	J	2.2	3.5		2	12/13/11 11:47	WSD
Methyl methacrylate	ND	0.10	0.030		ND	0.41		2	12/13/11 11:47	WSD
4-Methyl-2-pentanone (MIBK)	0.040	0.10	0.030	L-03, V-05, J	0.16	0.41		2	12/13/11 11:47	WSD
Propene	ND	4.0	0.076		ND	6.9		2	12/13/11 11:47	WSD
Styrene	0.050	0.10	0.022	J	0.21	0.43		2	12/13/11 11:47	WSD
1,1,2,2-Tetrachloroethane	ND	0.10	0.034		ND	0.69		2	12/13/11 11:47	WSD
Tetrachloroethylene	1.2	0.10	0.030		8.1	0.68		2	12/13/11 11:47	WSD
Tetrahydrofuran	0.090	0.10	0.032	J	0.27	0.29		2	12/13/11 11:47	WSD
Toluene	0.68	0.10	0.028		2.5	0.38		2	12/13/11 11:47	WSD
1,2,4-Trichlorobenzene	ND	0.20	0.038		ND	1.5		2	12/13/11 11:47	WSD
1,1,1-Trichloroethane	63	0.10	0.034		340	0.55		2	12/13/11 11:47	WSD
1,1,2-Trichloroethane	ND	0.10	0.032		ND	0.55		2	12/13/11 11:47	WSD
Trichloroethylene	18	0.10	0.028		97	0.54		2	12/13/11 11:47	WSD
Trichlorofluoromethane (Freon 11)	35	0.10	0.062		200	0.56		2	12/13/11 11:47	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.12	0.10	0.034		0.89	0.77		2	12/13/11 11:47	WSD
1,2,4-Trimethylbenzene	0.25	0.10	0.034		1.2	0.49		2	12/13/11 11:47	WSD
1,3,5-Trimethylbenzene	0.060	0.10	0.030	J	0.29	0.49		2	12/13/11 11:47	WSD
Vinyl Acetate	ND	0.10	0.050		ND	0.35		2	12/13/11 11:47	WSD
Vinyl Chloride	ND	0.10	0.050		ND	0.26		2	12/13/11 11:47	WSD
m&p-Xylene	0.36	0.20	0.052		1.6	0.87		2	12/13/11 11:47	WSD
o-Xylene	0.16	0.10	0.026		0.69	0.43		2	12/13/11 11:47	WSD

Surrogates

% Recovery

% REC Limits

4-Bromofluorobenzene (1)

102

70-130

12/13/11 11:47

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
11L0398-01 [IA-1-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-02 [IA-2-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-03 [IA-3-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-04 [IA-4-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-05 [IA-5-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-06 [IA-6-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-07 [IA-7-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-08 [AA-1-120811]	B042767	1.5	1	N/A	1000	400	1000	12/12/11
11L0398-09RE1 [EW-5-120811]	B042767	2	100	10	1000	400	400	12/12/11
11L0398-11 [EW-7-120811]	B042767	1	1	N/A	1000	400	200	12/12/11
11L0398-11RE1 [EW-7-120811]	B042767	1	1	N/A	1000	400	20	12/12/11
11L0398-12 [EW-Combined-120811]	B042767	1	1	N/A	1000	400	200	12/12/11

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
11L0398-09 [EW-5-120811]	B042852	2	1	N/A	1000	400	80	12/13/11
11L0398-10 [EW-6-120811]	B042852	2	1	N/A	1000	400	80	12/13/11

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

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

Batch B042767 - TO-15 Prep

Blank (B042767-BLK1)	Prepared & Analyzed: 12/12/11									
Acetone	0.80	1.0								J
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	0.025								
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								L-03
Isopropanol	0.022	1.0								J
Methyl tert-Butyl Ether (MTBE)	ND	0.025								
Methylene Chloride	0.034	0.25								J
Methyl methacrylate	ND	0.025								
4-Methyl-2-pentanone (MIBK)	ND	0.025								L-03, V-05
Propene	0.094	1.0								J
Styrene	ND	0.025								
1,1,2,2-Tetrachloroethane	ND	0.025								
Tetrachloroethylene	ND	0.025								

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

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

Batch B042767 - TO-15 Prep

Blank (B042767-BLK1)	Prepared & Analyzed: 12/12/11					
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	0.025				
Vinyl Chloride	ND	0.025				
m&p-Xylene	ND	0.050				
o-Xylene	ND	0.025				
<i>Surrogate: 4-Bromofluorobenzene (l)</i>	8.16		8.00		102	70-130

LCS (B042767-BS1)	Prepared & Analyzed: 12/12/11					
Acetone	4.79		5.00		95.8	50-150
Benzene	3.90		5.00		78.1	70-130
Benzyl chloride	6.10		5.00		122	70-130
Bromodichloromethane	4.21		5.00		84.3	70-130
Bromoform	5.68		5.00		114	70-130
Bromomethane	4.33		5.00		86.6	70-130
1,3-Butadiene	4.69		5.00		93.7	70-130
2-Butanone (MEK)	4.49		5.00		89.8	70-130
Carbon Disulfide	5.14		5.00		103	70-130
Carbon Tetrachloride	5.12		5.00		102	70-130
Chlorobenzene	4.36		5.00		87.1	70-130
Chloroethane	4.42		5.00		88.5	70-130
Chloroform	5.25		5.00		105	70-130
Chloromethane	4.84		5.00		96.7	70-130
Cyclohexane	4.22		5.00		84.4	50-150
Dibromochloromethane	4.92		5.00		98.5	70-130
1,2-Dibromoethane (EDB)	4.18		5.00		83.5	70-130
1,2-Dichlorobenzene	4.78		5.00		95.7	70-130
1,3-Dichlorobenzene	4.88		5.00		97.6	70-130
1,4-Dichlorobenzene	4.80		5.00		96.0	70-130
Dichlorodifluoromethane (Freon 12)	5.65		5.00		113	70-130
1,1-Dichloroethane	4.93		5.00		98.6	70-130
1,2-Dichloroethane	4.77		5.00		95.5	70-130
1,1-Dichloroethylene	4.72		5.00		94.5	70-130
cis-1,2-Dichloroethylene	4.82		5.00		96.4	70-130
trans-1,2-Dichloroethylene	4.87		5.00		97.5	70-130
1,2-Dichloropropane	3.77		5.00		75.5	70-130
cis-1,3-Dichloropropene	4.52		5.00		90.3	70-130
trans-1,3-Dichloropropene	4.12		5.00		82.3	70-130

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
Batch B042767 - TO-15 Prep											
LCS (B042767-BS1)											
Prepared & Analyzed: 12/12/11											
Ethanol	3.77				5.00		75.4	50-150			
Ethyl Acetate	5.05				5.00		101	50-150			
Ethylbenzene	4.40				5.00		88.0	70-130			
4-Ethyltoluene	4.58				5.00		91.6	50-150			
Heptane	3.88				5.00		77.7	50-150			
Hexachlorobutadiene	4.85				5.00		97.1	70-130			
Hexane	4.83				5.00		96.5	70-130			
2-Hexanone (MBK)	2.37				5.00		47.3	* 50-150			L-03
Isopropanol	3.13				5.00		62.7	50-150			
Methyl tert-Butyl Ether (MTBE)	5.87				5.00		117	70-130			
Methylene Chloride	4.66				5.00		93.2	70-130			
Methyl methacrylate	3.74				5.00		74.8	70-130			
4-Methyl-2-pentanone (MIBK)	2.88				5.00		57.6	* 70-130			L-03, V-05
Propene	4.97				5.00		99.3	50-150			
Styrene	4.61				5.00		92.2	70-130			
1,1,2,2-Tetrachloroethane	4.00				5.00		79.9	70-130			
Tetrachloroethylene	4.58				5.00		91.7	70-130			
Tetrahydrofuran	5.45				5.00		109	50-150			
Toluene	4.33				5.00		86.6	70-130			
1,2,4-Trichlorobenzene	5.06				5.00		101	70-130			
1,1,1-Trichloroethane	4.40				5.00		88.0	70-130			
1,1,2-Trichloroethane	4.18				5.00		83.6	70-130			
Trichloroethylene	4.12				5.00		82.4	70-130			
Trichlorofluoromethane (Freon 11)	4.42				5.00		88.3	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.64				5.00		113	70-130			
1,2,4-Trimethylbenzene	4.51				5.00		90.1	70-130			
1,3,5-Trimethylbenzene	4.51				5.00		90.2	70-130			
Vinyl Acetate	4.72				5.00		94.3	70-130			
Vinyl Chloride	4.61				5.00		92.1	70-130			
m&p-Xylene	8.96				10.0		89.6	70-130			
o-Xylene	4.37				5.00		87.3	70-130			
Surrogate: 4-Bromofluorobenzene (l)	8.25				8.00		103	70-130			

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

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

Batch B042852 - TO-15 Prep
Blank (B042852-BLK1)

Prepared: 12/13/11 Analyzed: 12/14/11

Acetone	0.74	1.0									L-05, J
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	0.025									
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	ND	0.25									
Methyl methacrylate	ND	0.025									
4-Methyl-2-pentanone (MIBK)	ND	0.025									L-03, V-05
Propene	ND	1.0									
Styrene	ND	0.025									
1,1,2,2-Tetrachloroethane	ND	0.025									
Tetrachloroethylene	ND	0.025									

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

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

Batch B042852 - TO-15 Prep
Blank (B042852-BLK1)

Prepared: 12/13/11 Analyzed: 12/14/11

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	0.025
Vinyl Chloride	ND	0.025
m&p-Xylene	ND	0.050
o-Xylene	ND	0.025

Surrogate: 4-Bromofluorobenzene (I)	7.66	8.00	95.8	70-130
-------------------------------------	------	------	------	--------

LCS (B042852-BS1)

Prepared & Analyzed: 12/13/11

Acetone	8.02	5.00	160	*	50-150	L-05
Benzene	4.06	5.00	81.1		70-130	
Benzyl chloride	6.44	5.00	129		70-130	
Bromodichloromethane	4.50	5.00	90.1		70-130	
Bromoform	6.31	5.00	126		70-130	
Bromomethane	4.56	5.00	91.3		70-130	
1,3-Butadiene	4.45	5.00	88.9		70-130	
2-Butanone (MEK)	4.67	5.00	93.5		70-130	
Carbon Disulfide	5.61	5.00	112		70-130	
Carbon Tetrachloride	5.50	5.00	110		70-130	
Chlorobenzene	4.97	5.00	99.4		70-130	
Chloroethane	4.58	5.00	91.6		70-130	
Chloroform	5.64	5.00	113		70-130	
Chloromethane	4.54	5.00	90.9		70-130	
Cyclohexane	4.51	5.00	90.3		50-150	
Dibromochloromethane	5.68	5.00	114		70-130	
1,2-Dibromoethane (EDB)	4.76	5.00	95.3		70-130	
1,2-Dichlorobenzene	5.36	5.00	107		70-130	
1,3-Dichlorobenzene	5.54	5.00	111		70-130	
1,4-Dichlorobenzene	5.42	5.00	108		70-130	
Dichlorodifluoromethane (Freon 12)	6.10	5.00	122		70-130	
1,1-Dichloroethane	5.29	5.00	106		70-130	
1,2-Dichloroethane	5.06	5.00	101		70-130	
1,1-Dichloroethylene	5.11	5.00	102		70-130	
cis-1,2-Dichloroethylene	5.08	5.00	102		70-130	
trans-1,2-Dichloroethylene	5.12	5.00	102		70-130	
1,2-Dichloropropane	4.05	5.00	81.0		70-130	
cis-1,3-Dichloropropene	4.72	5.00	94.3		70-130	
trans-1,3-Dichloropropene	4.30	5.00	86.0		70-130	

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
Batch B042852 - TO-15 Prep											
LCS (B042852-BS1)											
Prepared & Analyzed: 12/13/11											
Ethanol	3.21		5.00		64.1	50-150					
Ethyl Acetate	5.18		5.00		104	50-150					
Ethylbenzene	4.93		5.00		98.6	70-130					
4-Ethyltoluene	5.10		5.00		102	50-150					
Heptane	4.25		5.00		84.9	50-150					
Hexachlorobutadiene	5.19		5.00		104	70-130					
Hexane	5.12		5.00		102	70-130					
2-Hexanone (MBK)	2.56		5.00		51.2	50-150					
Isopropanol	6.02		5.00		120	50-150					
Methyl tert-Butyl Ether (MTBE)	5.88		5.00		118	70-130					
Methylene Chloride	5.26		5.00		105	70-130					
Methyl methacrylate	3.87		5.00		77.4	70-130					
4-Methyl-2-pentanone (MIBK)	3.02		5.00		60.4 *	70-130					L-03, V-05
Propene	5.25		5.00		105	50-150					
Styrene	5.10		5.00		102	70-130					
1,1,2,2-Tetrachloroethane	4.66		5.00		93.3	70-130					
Tetrachloroethylene	5.14		5.00		103	70-130					
Tetrahydrofuran	5.49		5.00		110	50-150					
Toluene	4.81		5.00		96.2	70-130					
1,2,4-Trichlorobenzene	5.51		5.00		110	70-130					
1,1,1-Trichloroethane	4.67		5.00		93.5	70-130					
1,1,2-Trichloroethane	5.18		5.00		104	70-130					
Trichloroethylene	4.44		5.00		88.7	70-130					
Trichlorofluoromethane (Freon 11)	8.33		5.00		167 *	70-130					L-05
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	6.25		5.00		125	70-130					
1,2,4-Trimethylbenzene	5.00		5.00		99.9	70-130					
1,3,5-Trimethylbenzene	5.06		5.00		101	70-130					
Vinyl Acetate	4.86		5.00		97.2	70-130					
Vinyl Chloride	4.63		5.00		92.5	70-130					
m&p-Xylene	10.2		10.0		102	70-130					
o-Xylene	4.96		5.00		99.2	70-130					
Surrogate: 4-Bromofluorobenzene (l)	8.19		8.00		102	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-05 Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

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

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S001497-CCV1)		Lab File ID: G121202.D				Analyzed: 12/12/11 15:55			
Bromochloromethane (1)	314871	8.778	401737	8.777	78	60 - 140	0.0010	+/-0.50	
Bromochloromethane (1)	314871	8.778	396953	8.778	79	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1082470	10.663	1045506	10.672	104	60 - 140	-0.0090	+/-0.50	
1,4-Difluorobenzene (1)	1082470	10.663	1069544	10.671	101	60 - 140	-0.0080	+/-0.50	
Chlorobenzene-d5 (1)	992789	15.431	985901	15.439	101	60 - 140	-0.0080	+/-0.50	
Chlorobenzene-d5 (1)	992789	15.431	963689	15.439	103	60 - 140	-0.0080	+/-0.50	
LCS (B042767-BS1)		Lab File ID: G121203.D				Analyzed: 12/12/11 16:33			
Bromochloromethane (1)	306336	8.786	314871	8.778	97	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1067004	10.672	1082470	10.663	99	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	987062	15.439	992789	15.431	99	60 - 140	0.0080	+/-0.50	
Blank (B042767-BLK1)		Lab File ID: G121207.D				Analyzed: 12/12/11 19:11			
Bromochloromethane (1)	301838	8.786	314871	8.778	96	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1055428	10.672	1082470	10.663	98	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	965111	15.431	992789	15.431	97	60 - 140	0.0000	+/-0.50	
IA-1-120811 (11L0398-01)		Lab File ID: G121208.D				Analyzed: 12/12/11 20:12			
Bromochloromethane (1)	306271	8.777	314871	8.778	97	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	1058857	10.663	1082470	10.663	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	974413	15.431	992789	15.431	98	60 - 140	0.0000	+/-0.50	
IA-2-120811 (11L0398-02)		Lab File ID: G121209.D				Analyzed: 12/12/11 20:59			
Bromochloromethane (1)	304210	8.786	314871	8.778	97	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1056392	10.672	1082470	10.663	98	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	977213	15.431	992789	15.431	98	60 - 140	0.0000	+/-0.50	
IA-3-120811 (11L0398-03)		Lab File ID: G121210.D				Analyzed: 12/12/11 21:46			
Bromochloromethane (1)	306008	8.786	314871	8.778	97	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1061676	10.663	1082470	10.663	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	974123	15.431	992789	15.431	98	60 - 140	0.0000	+/-0.50	
IA-4-120811 (11L0398-04)		Lab File ID: G121211.D				Analyzed: 12/12/11 22:33			
Bromochloromethane (1)	305132	8.804	314871	8.778	97	60 - 140	0.0260	+/-0.50	
1,4-Difluorobenzene (1)	1062343	10.68	1082470	10.663	98	60 - 140	0.0170	+/-0.50	
Chlorobenzene-d5 (1)	968657	15.439	992789	15.431	98	60 - 140	0.0080	+/-0.50	
IA-5-120811 (11L0398-05)		Lab File ID: G121212.D				Analyzed: 12/12/11 23:20			
Bromochloromethane (1)	308226	8.778	314871	8.778	98	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1056740	10.663	1082470	10.663	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	975785	15.431	992789	15.431	98	60 - 140	0.0000	+/-0.50	
AA-1-120811 (11L0398-08)		Lab File ID: G121213.D				Analyzed: 12/13/11 00:07			
Bromochloromethane (1)	308625	8.786	314871	8.778	98	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1063192	10.663	1082470	10.663	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	989132	15.431	992789	15.431	100	60 - 140	0.0000	+/-0.50	

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

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
IA-7-120811 (11L0398-07)						Lab File ID: G121214.D			
Bromochloromethane (1)	313687	8.795	314871	8.778	100	60 - 140	0.0170	+/-0.50	
1,4-Difluorobenzene (1)	1068728	10.672	1082470	10.663	99	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	982692	15.431	992789	15.431	99	60 - 140	0.0000	+/-0.50	
IA-6-120811 (11L0398-06)						Lab File ID: G121215.D			
Bromochloromethane (1)	309136	8.786	314871	8.778	98	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1061802	10.672	1082470	10.663	98	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	977334	15.431	992789	15.431	98	60 - 140	0.0000	+/-0.50	
EW-7-120811 (11L0398-11RE1)						Lab File ID: G121224.D			
Bromochloromethane (1)	304416	8.795	314871	8.778	97	60 - 140	0.0170	+/-0.50	
1,4-Difluorobenzene (1)	1062388	10.68	1082470	10.663	98	60 - 140	0.0170	+/-0.50	
Chlorobenzene-d5 (1)	970683	15.44	992789	15.431	98	60 - 140	0.0090	+/-0.50	
EW-7-120811 (11L0398-11)						Lab File ID: G121228.D			
Bromochloromethane (1)	309117	8.786	314871	8.778	98	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1065493	10.671	1082470	10.663	98	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (1)	971554	15.439	992789	15.431	98	60 - 140	0.0080	+/-0.50	
EW-Combined-120811 (11L0398-12)						Lab File ID: G121229.D			
Bromochloromethane (1)	302838	8.786	314871	8.778	96	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	1042804	10.671	1082470	10.663	96	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (1)	944403	15.439	992789	15.431	95	60 - 140	0.0080	+/-0.50	
EW-5-120811 (11L0398-09RE1)						Lab File ID: G121230.D			
Bromochloromethane (1)	300256	8.778	314871	8.778	95	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1027615	10.663	1082470	10.663	95	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	939503	15.431	992789	15.431	95	60 - 140	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S001507-CCV1)						Lab File ID: G121302.D			
Bromochloromethane (1)	261809	8.795	401737	8.777	65	60 - 140	0.0180	+/-0.50	
Bromochloromethane (1)	261809	8.795	396953	8.778	66	60 - 140	0.0170	+/-0.50	
1,4-Difluorobenzene (1)	848480	10.68	1045506	10.672	81	60 - 140	0.0080	+/-0.50	
1,4-Difluorobenzene (1)	848480	10.68	1069544	10.671	79	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	748162	15.439	963689	15.439	78	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	748162	15.439	985901	15.439	76	60 - 140	0.0000	+/-0.50	
LCS (B042852-BS1)						Lab File ID: G121303.D			
Bromochloromethane (1)	252715	8.804	261809	8.795	97	60 - 140	0.0090	+/-0.50	
1,4-Difluorobenzene (1)	878578	10.688	848480	10.68	104	60 - 140	0.0080	+/-0.50	
Chlorobenzene-d5 (1)	767366	15.448	748162	15.439	103	60 - 140	0.0090	+/-0.50	

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

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B042852-BLK1)			Lab File ID: G121307.D			Analyzed: 12/14/11 10:31			
Bromochloromethane (1)	279293	8.786	261809	8.795	107	60 - 140	-0.0090	+/-0.50	
1,4-Difluorobenzene (1)	953069	10.671	848480	10.68	112	60 - 140	-0.0090	+/-0.50	
Chlorobenzene-d5 (1)	856762	15.439	748162	15.439	115	60 - 140	0.0000	+/-0.50	
EW-5-120811 (11L0398-09)			Lab File ID: G121312.D			Analyzed: 12/14/11 13:57			
Bromochloromethane (1)	285848	8.795	261809	8.795	109	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	936108	10.672	848480	10.68	110	60 - 140	-0.0080	+/-0.50	
Chlorobenzene-d5 (1)	783904	15.44	748162	15.439	105	60 - 140	0.0010	+/-0.50	
EW-6-120811 (11L0398-10)			Lab File ID: G121313.D			Analyzed: 12/14/11 14:35			
Bromochloromethane (1)	280797	8.786	261809	8.795	107	60 - 140	-0.0090	+/-0.50	
1,4-Difluorobenzene (1)	929235	10.672	848480	10.68	110	60 - 140	-0.0080	+/-0.50	
Chlorobenzene-d5 (1)	813177	15.439	748162	15.439	109	60 - 140	0.0000	+/-0.50	

CONTINUING CALIBRATION CHECK

EPA TO-15

S001497-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	4.36	0.7780196	0.6777836	0.05	-12.9	50
Benzene	A	5.00	3.85	0.9919301	0.7643807	0.05	-22.9	30
Benzyl chloride	A	5.00	6.22	0.8499213	1.057606	0.05	24.4	30
Bromodichloromethane	A	5.00	4.14	0.6068467	0.5027406	0.05	-17.2	30
Bromoform	A	5.00	5.76	0.4704248	0.5414468	0.05	15.1	30
Bromomethane	A	5.00	3.69	0.5137459	0.3791064	0.05	-26.2	30
1,3-Butadiene	A	5.00	3.91	0.3659445	0.2860956	0.05	-21.8	30
2-Butanone (MEK)	A	5.00	4.44	1.576877	1.400086	0.05	-11.2	30
Carbon Disulfide	A	5.00	5.04	2.225932	2.245227	0.05	0.9	30
Carbon Tetrachloride	A	5.00	4.97	0.4740071	0.4709126	0.05	-0.7	30
Chlorobenzene	A	5.00	4.34	0.9691024	0.8402237	0.05	-13.3	30
Chloroethane	A	5.00	3.82	0.2436821	0.186113	0.05	-23.6	30
Chloroform	A	5.00	5.08	1.597242	1.622755	0.05	1.6	30
Chloromethane	A	5.00	3.97	0.4507408	0.3580285	0.05	-20.6	30
Cyclohexane	A	5.00	4.26	0.4185998	0.3564219	0.05	-14.9	30
Dibromochloromethane	A	5.00	5.02	0.5702959	0.5720531	0.05	0.3	30
1,2-Dibromoethane (EDB)	A	5.00	4.18	0.6212373	0.5195062	0.05	-16.4	30
1,2-Dichlorobenzene	A	5.00	4.72	0.824805	0.7788112	0.05	-5.6	30
1,3-Dichlorobenzene	A	5.00	4.78	0.8705477	0.831429	0.05	-4.5	30
1,4-Dichlorobenzene	A	5.00	4.72	0.8910381	0.8420625	0.05	-5.5	30
Dichlorodifluoromethane (Freon 12)	A	5.00	5.19	1.567894	1.628852	0.05	3.9	30
1,1-Dichloroethane	A	5.00	4.73	1.49737	1.416712	0.05	-5.4	30
1,2-Dichloroethane	A	5.00	4.63	1.076954	0.9981078	0.05	-7.3	30
1,1-Dichloroethylene	A	5.00	4.56	1.211692	1.105291	0.05	-8.8	30
cis-1,2-Dichloroethylene	A	5.00	4.69	1.140275	1.069853	0.05	-6.2	30
trans-1,2-Dichloroethylene	A	5.00	4.68	1.208532	1.13237	0.05	-6.3	30
1,2-Dichloropropane	A	5.00	3.68	0.3723186	0.2742986	0.05	-26.3	30
cis-1,3-Dichloropropene	A	5.00	4.21	0.4910029	0.4136968	0.05	-15.7	30
trans-1,3-Dichloropropene	A	5.00	4.41	0.4597172	0.4054801	0.05	-11.8	30
Ethanol	A	5.00	3.40	0.1637235	0.1114259	0.05	-31.9	50
Ethyl Acetate	A	5.00	5.13	0.2785944	0.2859177	0.05	2.6	50
Ethylbenzene	A	5.00	4.37	1.520996	1.328376	0.05	-12.7	30
4-Ethyltoluene	A	5.00	4.67	1.585281	1.481344	0.05	-6.6	50
Heptane	A	5.00	3.89	0.2978858	0.2318904	0.05	-22.2	50
Hexachlorobutadiene	A	5.00	4.66	0.538906	0.502784	0.05	-6.7	30
Hexane	A	5.00	4.70	0.8183708	0.7688177	0.05	-6.1	30
2-Hexanone (MBK)	A	5.00	2.74	0.7787101	0.4270845	0.05	-45.2	50
Isopropanol	A	5.00	3.45	0.8186062	0.5642844	0.05	-31.1	50

CONTINUING CALIBRATION CHECK
EPA TO-15
S001497-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methyl tert-Butyl Ether (MTBE)	A	5.00	5.72	2.018342	2.308033	0.05	14.4	30
Methylene Chloride	A	5.00	4.46	0.8716831	0.7773444	0.05	-10.8	30
Methyl methacrylate	A	5.00	3.91	0.31987	0.2501819	0.05	-21.8	30
4-Methyl-2-pentanone (MIBK)	A	5.00	3.10	0.7454366	0.4618563	0.05	-38.0	30 *
Propene	A	5.00	4.51	0.5245675	0.4730623	0.05	-9.8	50
Styrene	A	5.00	4.59	0.8778577	0.8062797	0.05	-8.2	30
1,1,2,2-Tetrachloroethane	A	5.00	3.94	0.9145309	0.7199113	0.05	-21.3	30
Tetrachloroethylene	A	5.00	4.56	0.5193439	0.474023	0.05	-8.7	30
Tetrahydrofuran	A	5.00	5.43	0.3612585	0.392059	0.05	8.5	50
Toluene	A	5.00	4.33	1.204989	1.042705	0.05	-13.5	30
1,2,4-Trichlorobenzene	A	5.00	4.69	0.5935905	0.5568942	0.05	-6.2	30
1,1,1-Trichloroethane	A	5.00	4.31	0.5355351	0.4615858	0.05	-13.8	30
1,1,2-Trichloroethane	A	5.00	4.08	0.4163953	0.3394478	0.05	-18.5	30
Trichloroethylene	A	5.00	4.02	0.4043424	0.3247255	0.05	-19.7	30
Trichlorofluoromethane (Freon 11)	A	5.00	4.05	1.24975	1.012808	0.05	-19.0	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	5.00	5.43	1.416589	1.53822	0.05	8.6	30
1,2,4-Trimethylbenzene	A	5.00	4.61	1.301536	1.199717	0.05	-7.8	30
1,3,5-Trimethylbenzene	A	5.00	4.60	1.310815	1.204813	0.05	-8.1	30
Vinyl Acetate	A	5.00	4.57	2.298612	2.100517	0.05	-8.6	30
Vinyl Chloride	A	5.00	3.82	0.5346039	0.4086651	0.05	-23.6	30
m&p-Xylene	A	10.0	8.93	1.202997	1.073804	0.05	-10.7	30
o-Xylene	A	5.00	4.31	1.196773	1.032255	0.05	-13.7	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA TO-15

S001507-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	5.13	0.7780196	0.7977846	0.05	2.5	50
Benzene	A	5.00	4.13	0.9919301	0.8200886	0.05	-17.3	30
Benzyl chloride	A	5.00	6.30	0.8499213	1.070066	0.05	25.9	30
Bromodichloromethane	A	5.00	4.42	0.6068467	0.536849	0.05	-11.5	30
Bromoform	A	5.00	6.13	0.4704248	0.5768911	0.05	22.6	30
Bromomethane	A	5.00	5.30	0.5137459	0.5450324	0.05	6.1	30
1,3-Butadiene	A	5.00	5.04	0.3659445	0.3692096	0.05	0.9	30
2-Butanone (MEK)	A	5.00	4.43	1.576877	1.396878	0.05	-11.4	30
Carbon Disulfide	A	5.00	5.21	2.225932	2.321155	0.05	4.3	30
Carbon Tetrachloride	A	5.00	5.26	0.4740071	0.4988384	0.05	5.2	30
Chlorobenzene	A	5.00	4.94	0.9691024	0.9567618	0.05	-1.3	30
Chloroethane	A	5.00	5.30	0.2436821	0.2585335	0.05	6.1	30
Chloroform	A	5.00	5.21	1.597242	1.663527	0.05	4.1	30
Chloromethane	A	5.00	5.33	0.4507408	0.4804663	0.05	6.6	30
Cyclohexane	A	5.00	4.51	0.4185998	0.3776881	0.05	-9.8	30
Dibromochloromethane	A	5.00	5.50	0.5702959	0.6270321	0.05	9.9	30
1,2-Dibromoethane (EDB)	A	5.00	4.65	0.6212373	0.5782256	0.05	-6.9	30
1,2-Dichlorobenzene	A	5.00	5.25	0.824805	0.8653121	0.05	4.9	30
1,3-Dichlorobenzene	A	5.00	5.45	0.8705477	0.9486181	0.05	9.0	30
1,4-Dichlorobenzene	A	5.00	5.33	0.8910381	0.9503995	0.05	6.7	30
Dichlorodifluoromethane (Freon 12)	A	5.00	5.97	1.567894	1.871642	0.05	19.4	30
1,1-Dichloroethane	A	5.00	4.92	1.49737	1.474547	0.05	-1.5	30
1,2-Dichloroethane	A	5.00	4.76	1.076954	1.02504	0.05	-4.8	30
1,1-Dichloroethylene	A	5.00	4.80	1.211692	1.162771	0.05	-4.0	30
cis-1,2-Dichloroethylene	A	5.00	4.68	1.140275	1.066616	0.05	-6.5	30
trans-1,2-Dichloroethylene	A	5.00	4.70	1.208532	1.134922	0.05	-6.1	30
1,2-Dichloropropane	A	5.00	4.01	0.3723186	0.298267	0.05	-19.9	30
cis-1,3-Dichloropropene	A	5.00	4.36	0.4910029	0.4285782	0.05	-12.7	30
trans-1,3-Dichloropropene	A	5.00	4.48	0.4597172	0.4122591	0.05	-10.3	30
Ethanol	A	5.00	4.67	0.1637235	0.1530337	0.05	-6.5	50
Ethyl Acetate	A	5.00	5.25	0.2785944	0.2923414	0.05	4.9	50
Ethylbenzene	A	5.00	4.83	1.520996	1.468608	0.05	-3.4	30
4-Ethyltoluene	A	5.00	5.13	1.585281	1.626424	0.05	2.6	50
Heptane	A	5.00	4.18	0.2978858	0.2493381	0.05	-16.3	50
Hexachlorobutadiene	A	5.00	4.97	0.538906	0.5352039	0.05	-0.7	30
Hexane	A	5.00	4.71	0.8183708	0.7709559	0.05	-5.8	30
2-Hexanone (MBK)	A	5.00	2.92	0.7787101	0.4546801	0.05	-41.6	50
Isopropanol	A	5.00	3.94	0.8186062	0.6452399	0.05	-21.2	50

CONTINUING CALIBRATION CHECK
EPA TO-15
S001507-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methyl tert-Butyl Ether (MTBE)	A	5.00	5.43	2.018342	2.191479	0.05	8.6	30
Methylene Chloride	A	5.00	4.86	0.8716831	0.8479281	0.05	-2.7	30
Methyl methacrylate	A	5.00	4.09	0.31987	0.2614916	0.05	-18.3	30
4-Methyl-2-pentanone (MIBK)	A	5.00	3.28	0.7454366	0.4895342	0.05	-34.3	30 *
Propene	A	5.00	4.48	0.5245675	0.4701015	0.05	-10.4	50
Styrene	A	5.00	5.02	0.8778577	0.8809429	0.05	0.4	30
1,1,2,2-Tetrachloroethane	A	5.00	4.55	0.9145309	0.8325641	0.05	-9.0	30
Tetrachloroethylene	A	5.00	5.02	0.5193439	0.521316	0.05	0.4	30
Tetrahydrofuran	A	5.00	5.23	0.3612585	0.3778694	0.05	4.6	50
Toluene	A	5.00	4.76	1.204989	1.146139	0.05	-4.9	30
1,2,4-Trichlorobenzene	A	5.00	4.99	0.5935905	0.5922183	0.05	-0.2	30
1,1,1-Trichloroethane	A	5.00	4.61	0.5355351	0.4933189	0.05	-7.9	30
1,1,2-Trichloroethane	A	5.00	4.67	0.4163953	0.3892141	0.05	-6.5	30
Trichloroethylene	A	5.00	4.31	0.4043424	0.3487762	0.05	-13.7	30
Trichlorofluoromethane (Freon 11)	A	5.00	5.50	1.24975	1.374242	0.05	10.0	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	5.00	5.81	1.416589	1.645988	0.05	16.2	30
1,2,4-Trimethylbenzene	A	5.00	5.04	1.301536	1.313375	0.05	0.9	30
1,3,5-Trimethylbenzene	A	5.00	5.09	1.310815	1.334224	0.05	1.8	30
Vinyl Acetate	A	5.00	4.41	2.298612	2.026522	0.05	-11.8	30
Vinyl Chloride	A	5.00	5.34	0.5346039	0.5712867	0.05	6.9	30
m&p-Xylene	A	10.0	9.96	1.202997	1.197855	0.05	-0.4	30
o-Xylene	A	5.00	4.86	1.196773	1.163603	0.05	-2.8	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CERTIFICATIONS

Certified Analyses included in this Report

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

CERTIFICATIONS
Certified Analyses included in this Report

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Public Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013



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

AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Page 1 of 2

www.contestlabs.com
Telephone: (781) 245-6606
Project # 365008011Y

Company Name: Maelee IAMFC
Address: 107A Allston Rd

Sampled By: Mark Maggiori
Kelli Chatterton

Attention:

Project Location: Providence, RI Textile Mill
Proposal Provided? (For Billing purposes)

DATA DELIVERY (check one):
 FAX EMAIL WEBSITE CLIENT
 Email: Kelli.Chatterton@maelee.com
 Format: EXCEL PDF GIS KEY OTHER

yes _____ proposal date

Date Sampled	ONLY USE WHEN USING PUMPS		Start	Stop	Total	Flow Rate	Volume	Matrix	"Hg	
	Date	Time	Minutes	(L / Min.)	Liters or M³	Code*	Matrix	ID	Summa Canister ID	Flow Controller ID
IA - 1 - 120811	5	01	01:51:11	12:15:11	30	0.2	6	IA	X	-29-5-5 1038
IA - 2 - 120811	5	02	01:51:11	12:15:33	30	0.2	6	IA	X	-6-6 1857
IA - 3 - 120811	5	03	12:15:11	12:18:11	30	0.2	6	IA	X	-29-6-6 1069
IA - 4 - 120811	5	04	01:51:11	12:18:34	30	0.2	6	IA	X	-29-7-7 1033
IA - 5 - 120811	5	05	12:15:11	12:18:11	30	0.2	6	IA	X	-29-8-8 1012
IA - 6 - 120811	5	06	12:15:11	12:18:11	30	0.2	6	IA	X	-29-7-7 1055
IA - 7 - 120811	5	07	12:15:11	12:18:25	30	0.2	6	IA	X	-29-7-7 1053
IA - 8 - 120811	5	08	12:15:11	12:18:29	30	0.2	6	IA	X	-29-5-5 1662
										4086
										4093

Laboratory Comments:

CLIENT COMMENTS:
only use 12 cans. mark mass. inc
flow controller 4088 not working
335-927-3797

Relinquished by: (signature) <u>Mark Maggiori</u>	Date/Time: 12/5/11 12:10	Turnaround **	Special Requirements		Regulations: <input checked="" type="checkbox"/> Target Indo-A Data Enhancement/RCP? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Enhanced Data Package <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Surcharge Applies) Required Detection Limits: <input checked="" type="checkbox"/> Target Indo-A Other: <u>Comments</u>						
Relinquished by: (signature) <u>Mark Maggiori</u>	Date/Time: 12/6/11 12:10	Turnaround **	<input type="checkbox"/> 7-Day	<input type="checkbox"/> 10-Day	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> RUSH *	SG= SOIL GAS IA= INDOOR AIR AMB=AMBIENT SS = SUB SLAB D = DUP BL = BLANK O = other				
Received by: (signature) <u>Mark Maggiori</u>	Date/Time: 12/6/11 12:10	Turnaround **	<input type="checkbox"/> *24-Hr	<input type="checkbox"/> *48-Hr	<input type="checkbox"/> *72-Hr	<input type="checkbox"/> *4-Day	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.											



con-test®
ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405

CHAIN OF CUSTODY RECORD

39 SPRUCE ST
EAST LONGME

Page 2 of 2

Company Name: <u>Master Anne</u>			
Address: <u>107 Audubon Rd.</u>			
Attention: <u>Melissa Hartman</u>			
Project Location: <u>Providence, RI, Textile Center</u>			
Sampled By: <u>Mark Maguire</u>			
Proposal Provided? (For Billing purposes)			
<input type="checkbox"/> yes	proposal date		
Field ID	Sample Description	Media	Lab #
<u>EW-5-120511</u>	S	<u>59</u>	
<u>EW-6-120511</u>	S	<u>10</u>	
<u>EW-7-120511</u>	S	<u>11</u>	
<u>EW-Combined-120511</u>	S	<u>12</u>	
Laboratory Comments:			
Retired/pushed by: (signature) <u>Jill Ziegler</u>	Date/Time: 12/11/11 12:10		
Received by: (signature) <u>Mark Maguire</u>	Date/Time: 12/11/11 12:11		
Distinguished by: (signature) <u>Mark Maguire</u>	Date/Time: 12/11/11 12:11		
Received by: (signature) <u>Mark Maguire</u>	Date/Time: 12/11/11 10:01		

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS. INCORRECT TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.



www.contestlabs.com



AIR Only Receipt Checklist

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

CLIENT NAME: Macter

RECEIVED BY: muk

DATE: 12/12/11

1) Was the chain(s) of custody relinquished and signed?

Yes No

2) Does the chain agree with the samples?

Yes No

If not, explain:

3) Are all the samples in good condition?

Yes No

If not, explain:

4) Are there any samples "On Hold"?

Yes No Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples?

Yes No

Who was notified _____ Date _____ Time _____

6) Location where samples are stored:

Air lab

Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved
Client Signature:

Air Media received at Con-Test

		# of Containers	Types (Size, Duration)
Air Sampling Media	Summa Cans	14	6L
	Tedlar Bags		
	Tubes		
Flow Controllers	Regulators	14	30min
	Restrictors		
Extras	Tubing		
	Other		

Unused Summas:

1824
1174

Unused Regulators:

4085
4078

1) Was all media (used & unused checked into the WASP?)

2) Were all returned summa cans, Restrictors, & Regulators documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments:	-1038 -1844 -1662 -1505	1824	-4069 -4066 -4082 -4083
	-1857 -1012 -1783 -1465	1174	-4081 -4097 -4074 -4089
	-1033 -1138 -1674 -1165		-4079 -4085 -4086 -4098

March 2011



Air Sampling Media Certificate of Analysis

Date Analyzed: 12/2/2011 Batch #: 11B422

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs:	<u>BC1038</u>	<u>BC1138</u>	<u>BC1783</u>
	<u>BC1674</u>	<u>BC1465</u>	<u>BC1165</u>

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.80	Hexane	<0.02	1,2-Dibromomethane
<0.02	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1,3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloroproppane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.2	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.80	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 12/15/11+B13



Air Sampling Media Certificate of Analysis

Date Analyzed: 12/2/2011 Batch #: 11B421

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs: BC1844 _____

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.80	Hexane	<0.02	1,2-Dibromomethane
<0.02	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1,3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
0.22	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.80	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 12/15/11



Air Sampling Media Certificate of Analysis

Date Analyzed: 12/2/2011 Batch #: 11B420

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs: BC1012 BC1033 BC1857

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.80	Hexane	<0.02	1,2-Dibromomethane
<0.02	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1,3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
0.21	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.80	2-Butanone (MEK)	<0.02	Toluene	<0.02	
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)	<0.02	

Special Notes:

Analyst Initials/Date: TPH 12/15/11



Air Sampling Media Certificate of Analysis

Date Analyzed:

11/22/2011

Batch #:

11B417

Certification Type:

Batch Certified

Individual Certified

Media Type:

Summa Canister

Flow Controllers

Media IDs:

BC1662

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units:

PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.80	Hexane	<0.02	1,2-Dibromomethane
<0.02	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1,3-Butadiene	<0.02	1,2-Dichloroethane	0.06	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloroproppane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.80	2-Butanone (MEK)	0.06	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date:

TPH 12/15/11



Air Sampling Media Certificate of Analysis

Date Analyzed: 11/11/2011 Batch #: 11B406

Certification Type: *Batch Certified* *Individual Certified*

Media Type: *Summa Canister* *Flow Controllers*

Media IDs: BC1505 _____

Note: Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.80	Hexane	<0.02	1,2-Dibromomethane
<0.02	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1,3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.02	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.02	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.80	2-Butanone (MEK)	<0.02	Toluene	<0.02	
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)	<0.02	

Special Notes:

Analyst Initials/Date: TPH 12/15/11

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Fourth Quarter, 2011

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



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

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
413.525.2332
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



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

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
Metyl Acetate	ND	ND	0.206	0.6241	74.08	1	0.33
Metylcylohexane	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