

October 14, 2015

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



**RE: Air Monitoring Report
Third Quarter, 2015
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
AMEC Project No. 3652150005**

Dear Mr. Martella:

This letter report presents the results of quarterly compliance sampling and analysis conducted by Amec Foster Wheeler (Formerly AMEC) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site). The reporting period is from July 2015 through September 2015 and includes one quarterly compliance sampling event (September 16, 2015).

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

Background

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

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

Small Retail Spaces

The quarterly monitoring event for the three small retail spaces, consistent with the requirements of the Orders of Approval, was completed on September 16, 2015.

Table 1 summarizes the analytical results at the small retail spaces for the baseline sampling event conducted prior to system start-up in February 2009 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 (15I0764) associated with the September 16, 2015 quarterly sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

The sampling event included an indoor air sample from each of the small retail spaces (locations IA-5, IA-6, and IA-7), one outdoor air reference sample (location AA-1), and one air sample collected from each of the three vapor extraction wells (EW-5, EW-6, and EW-7). The sampling locations are shown in Figure 1. The outdoor reference air sample (AA-1) was located north of the property, upwind of the

retail building. 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 for the September 16, 2015 quarterly sampling event in the small retail spaces (sample locations IA-5 through IA-7) were in compliance with action levels.
- ▶ The eastern small retail space (indoor air sample location IA-5) was occupied by Charter, LLC as a construction office for the Parcel C and Phase II/Phase III Areas remediation.
- ▶ The center small retail space (sample location IA-6) was unoccupied during this sampling event.
- ▶ The western small retail space (sample location IA-7) is intermittently occupied for church functions.
- ▶ The mitigation systems are functioning as designed.

Large Retail Space

The quarterly monitoring event for the large retail space, consistent with the requirements of the Orders of Approval, was completed on September 16, 2015. 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 TAC, which were identified as action levels in the Orders of Approval. The laboratory report (15I0764) associated with September 16, 2015 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 north of the property upwind of the retail building. 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 are in compliance with action levels for the quarterly sampling event in the large retail space (sample locations IA-1 through IA-4). The mitigation system is functioning as designed and is achieving desired results with respect to indoor air quality in the large retail space.
- ▶ The large retail space has been subdivided into two spaces. The eastern section is currently occupied by a health fitness club which opened in January of 2013. This space was recently updated to change the name of the gym to "Blast" as part of a nationwide revision. This space includes indoor air sample locations IA-2 and IA-4 and sub-slab vacuum monitoring well VMW-2.
- ▶ The western side of the large retail space remains vacant and includes indoor air locations IA-1 and IA-3, vapor extraction well EW-5 and sub-slab vacuum monitoring VMW-1, VMW-3, and VMW-4.

ASD System Monitoring/Maintenance

The ASD system performance is monitored monthly by Clean Harbors Environmental Services. Radon fan 3 shut down on July 14 and was restarted on site July 17, 2015. The breaker within the western most retail space (church) had been turned off and was manually restarted. There were low flow conditions reported on radon fan 1 on July 14 and September 30, 2015.

Textron, Inc.

Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, Third Quarter, 2015
October 14, 2015
Project No.: 3652150005

Next Reporting Period

The next quarterly report (fourth quarter 2015) will cover the monitoring period from October 2015 through December 2015. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDEM) in January 2016.

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

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.



Mark Maggiore
Environmental Scientist



David E. Heislein
Senior Project Manager

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

Figure 1 Vapor Mitigation Sample Locations

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

cc: Don Gralnek, Executive Director - Providence Redevelopment Agency
 G. Simpson, Textron, Inc. (Electronic)
 Knight Memorial Library Repository
 Shane Brackett, Paolino Properties (including tenants)
 Joseph P. Salvetti, Norfolk Ram Group, LLC
 AMEC Project File

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TABLES

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 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 02810 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		
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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U												
1,1,1,2-Tetrachloroethane																										
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U												
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U												
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U												
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 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	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	0.28	0.52	1.8	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.30	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U							
1,2-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	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U												
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U												
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U												
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U												
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.50	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	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.11 U	0.080 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U				
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U												
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.53	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 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	1.2	1.2	2.0	0.81	1.6	1.6	0.88	1.5	1.4	2.4	2.3		
2-Hexanone	0.20 U	0.22	0.57	0.35	0.20 U	0.20 U	0.14 U	0.26	0.39	0.20 U	0.34	0.20 U	0.33	0.23	0.20 U	0.20 U	0.32	0.20 U	0.20 U	0.29	0.29	0.49	0.49			
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U											
4-Methyl-pentanone	0.20 U	0.20 U	0.27	0.63	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U											
Acetone	7.3	8.0	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5.0	3.7	9.5	12	20	13		
Benzene	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.30	0.40	0.49	0.38	0.35	0.25	0.20	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19	0.16 U		
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U											
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U											
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U											
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U											
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U												
Carbon tetrachloride	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.40	0.40	0.43	0.46	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.51		
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U											
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U											
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U											
Chloromethane	1.1	0.90	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	1.2	1.1	1.2	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U												
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U											
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	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U												
Dichlorodifluoromethane	2.0	2.2	2.6	2.7	2.6	2.6	2.8	2.0	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	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)	Outdoor Air Reference Locations																							
	AA-1-011609 1/16/2009	AA-1-020309 2/3/2009	AA-1-021109 2/11/2009	AA-1-021809 2/18/2009	AA-1-022609 2/26/2009	AA-1-030609 3/6/2009	AA-1-033109 3/31/2009	AA-1-041409 4/14/2009	AA-1-042409 4/24/2009	AA-1-051509 5/15/2009	AA-1-061109 6/11/2009	AA-1-091709 9/17/2009	AA-1-092409 9/24/2009	AA-1-100109 10/1/2009	AA-1-100809 10/8/2009	AA-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010	AA-1-021210 2/12/2010	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
Ethanol	4.0	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4.0	3.3	4.0
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	1.1	0.18 U	0.18 U	0.18 U	0.18 U							
Ethylbenzene	0.22 U	0.25	0.52	2.0	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.82
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	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	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91	0.24	0.23	1.1	0.51	0.37
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1.0	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	2.7	1.5	0.80	0.73	0.69	1.6	0.79
m,p-Xylene	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U	0.50	0.47	0.43 U	0.49	0.43 U	0.43 U	2.2
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	0.70 U	4.2	0.70 U	23	4.6	1.3	1.9	1.7	0.70 U	0.70 U	0.70 U	0.35 U	1.1
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U								
n-Heptane	0.20 U	0.27	0.92	1.6	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.40	0.23	0.20 U	0.20 U	0.26	0.20 U	0.20 U								
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.46
Propylene (Propene)	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.090 U	0.13 U	0.18 U	0.090 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U								
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	0.52	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U					
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.19	0.15 U	0.15 U	0.15 U	0.15 U								
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2.0	0.61	0.50	0.78	0.94	0.64	0.97	0.46	1.1	0.75	0.63	0.57
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U								
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U								
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2.0	1.7	0.92	1.3	1.5	2.0	1.1	1.4	1.2	1.5	2.2	1.2	1.6	1.5	1.2	1.4	1.3		
Trichlorotrifluoroethane	0.68	0.53	0.5	0.47	0.64	0.48	0.51	0.27 U	0.64	0.67	0.56	0.47	0.49	0.45	0.46	0.54	0.49	0.55	0.54	0.54	0.62	0.45	0.58	0.56
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.18 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U								

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																							
	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013	AA-1-030714 3/7/2014	AA-1-061314 6/13/2014	AA-1-091214 9/12/2014	AA-1-121914 12/19/2014	AA-01-032715 3/27/2015	AA-1-061115 6/11/2015	AA-1-091615 9/16/2015		
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.18 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	0.073 J		
1,1,1,2-Tetrachloroethane							0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 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		
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 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		
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U	0.26 U	0.26 U	0.26 U		
1,2,4-Trimethylbenzene	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19	0.17 U	0.17 U	0.51	0.069 J	0.17 U	0.2	0.059 J	0.29		
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 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		
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.066	0.061 U	0.046	0.14 U	0.14 U	0.057	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.037 J	0.14 U	0.14 U	0.054 J	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
1,2-Dichlorotetrafluoroethane	0.35 U																							
1,3,5-Trimethylbenzene	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.047	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.062 J	0.17 U	0.076 J		
1,3-Butadiene	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.078 U	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U		
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 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		
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 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		
1,4-Dioxane						0.18 U																		
2-Butanone	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2.0	0.89	1.9	3.9	3.7	0.94	0.82	1.4	2.2	1.1 J	1.2 J	0.96 J	2.1 J	1 J		
2-Hexanone	0.41	0.20 U	0.20 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U	0.14 U	0.26	0.34	0.16	0.14 U	0.17	0.14 U	0.17	0.14 U	
4-Ethyltoluene	0.30	0.25 U	0.34	0.25 U	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.17 U	0.063	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.079 J	0.17 U	0.093 J		
4-Methyl-2-pentanone	2.8	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.23	0.10	0.14 U	0.083	0.24	0.14 U	0.14 U	0.14 U	0.14 U	0.2	0.036 J	0.14 U	0.092 J	0.14 U	0.14 U	0.14 U		
Acetone	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12	26	9.3	22	25	10	8.7	10	13		
Benzene	1.2	0.28	2.3	0.16 U	0.19	0.40	0.29	0.20	0.68	0.42	1.0	0.31	0.70	0.95	0.43	1.0	0.9	0.2	0.6	0.7	0.41	0.82		
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.052 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Bromodichloromethane	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U		
Bromoform	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U		
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.078 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
Carbon disulfide	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.098 J	1.1 U	0.057 J	1.1 U	0.09 J	
Carbon tetrachloride	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43	0.45	0.45	0.22	0.42	0.45	0.36	0.34	0.36	0.43	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U	0.093 U	0.093 U	0.11	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U		
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.10	0.17 U	0.17 U	0.08	0.082 J	0.065 J	0.11 J	0.18			
Chloromethane	0.99	0.94	1.0	0.96	1.4	0.062 U	1.1	1.5	1.1	1.0	1.6	1.4	1.1	0.96	1.1	1.3	1.4	0.64	0.96	1.1	1.2	1.1		
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Cyclohexane	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.31	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.29 U	0.30 U	0.30 U	0.30 U	0.30 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	2.9	1.9	3.1	1.9	1.7	2.5	2.0	2.4	2.8	2.5	1.7	3.0	2.0	1.8	2.7	1.4	2	2.2	2.1	1.4	2.3	1.7		

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-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013	AA-1-030714 3/7/2014	AA-1-061314 6/13/2014	AA-1-091214 9/12/2014	AA-1-121914 12/19/2014	AA-01-032715 3/27/2015	AA-1-061115 6/11/2015	AA-1-091615 9/16/2015
Ethanol	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	6.7	5.4	9.0	17.0	2.9	2.7	2 J	5	12
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U	0.13 U	0.18	0.13 U	0.17	0.13 U	0.27	0.13 U	0.68
Ethylbenzene	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	0.15 U	0.16	0.44	0.047 J	0.046 J	0.19	0.1 J	0.37
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81	0.32	0.44	1.2	0.19 J	0.39 J	5.1	0.29 J	1 J
Isopropyl alcohol	0.25 U	0.29	2.4	1.2 U	4.9 U	0.60	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U	0.77	0.92	3.1	0.61 J	3.4 U	0.65 J	0.44 J	2.7 J
m,p-Xylene	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.30 U	0.34	0.58	0.21	0.53	0.30 U	0.42	1.4	0.14 J	0.11 J	0.66	0.24 J	1.2
Methyl methacrylate	0.20 U	0.48	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	1.1	0.66	3.0	2.3	1.7 U	1.5	1.6	3.0	2.1	4.4	2.9	2.3	9.1	1.0	0.76	0.55	1.20	0.54 J	0.47 J	0.44 J	0.47 J	0.48 J
Methyl- <i>t</i> -butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U	0.13 U	0.072 U	0.13 U	0.13 U	0.13 U	0.13 U	
n-Heptane	0.91	0.20 U	0.95	0.20 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18	0.14 U	0.21	0.62	0.054 J	0.14 U	0.19	0.14 U	0.39
o-Xylene	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.20	0.15 U	0.24	0.15 U	0.17	0.5	0.054 J	0.046 J	0.25	0.11 J	0.40
Propylene (Propene)	1.9	0.86 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	2.4 U	1.3	1.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.10	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052	0.15 U	0.15 U	0.16	0.085 U	0.15 U	0.15 U	0.15 U	0.12 J
Tetrachloroethene	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.10 U	0.20 U	0.87	0.24 U	0.90	0.24 U	0.24 U	0.30	0.24 U	0.24 U	0.4	0.071	0.09 J	0.22 J	0.29	0.35
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.10 U	0.10 U	0.10 U	0.10 U	1.4	0.10 U	0.10 U	0.23	0.10 U	0.059 U	0.1 U	0.1 U	0.1 U
Toluene	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3	0.35	1.2	2.6	0.33	0.35	1.3	0.51	2.9
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.045 U	0.16 U	0.064 J	0.16 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11	0.19 U	0.19 U	0.19 U	0.052 J	0.19 U	0.19 U	0.19 U	0.19 U
Trichlorofluoromethane	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.5	1.3	1.8	11	3.3	1.5	1.1	1.4	1.3	1.3	1.1	1.5	1.2
Trichlorotrifluoroethane	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1	0.6	0.55	0.55	0.46	0.54	0.57	0.63	0.49 J	0.65 J	0.57 J
Vinyl acetate	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U	2.5 U	1.4 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	0.090 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 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 - 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 3/6/2009	EW-5-030609 4/14/2009	EW-5-041409 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	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013		
1,1,1-Trichloroethane	19000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210	400	340	430	130	81	100	190	0.55 U	0.55 U	59	
1,1,1,2-Tetrachloroethane																			25 U	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 U	1.4 U	6.9 U	14 U	3.4 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 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 U	1.1 U	5.5 U	11 U	2.7 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	
1,1-Dichloroethane	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29	34	33	44	16	11	12	21	0.40 U	0.40 U	6.4	
1,1-Dichloroethene	2500	290	130	190	61	160	160	160	98	30	18	21	15	13	15	11	14	5	4.5	4.5	6.9	0.40 U	0.40 U	1.7	
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 U	1.5 U	7.4 U	30 U	7.4 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.2	0.63	0.49 U	0.49 U	0.49 U	0.49 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 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	
1,2-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 U	1.2 U	6.0 U	12 U	3.0 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,2-Dichloroethane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.81 U	0.81 U	4.0 U	8.1 U	2.0 U	2.0 U	0.17	0.40 U	0.40 U	0.40 U	0.40 U	0.40 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 U	0.92 U	4.6 U	9.2 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	
1,2-Dichlorotetrafluoroethane	7.0 U	7.0 U	7.0 U	7.0 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	7.0 U	3.5 U	7.0 U													
1,3,5-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.19	0.49 U	0.49 U	0.49 U	0.49 U	0.49 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	1.1 U	2.2 U	1.1 U	2.2 U	0.44 U	0.44 U	2.2 U	4.4 U	1.1 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
1,3-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 U	1.2 U	6.0 U	12 U	3.0 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,4-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 U	1.2 U	6.0 U	12 U	3.0 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,4-Dioxane																									
2-Butanone	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000	13000	2700	1800	870	840	9.5	1.7	1900	
2-Hexanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.7	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 U	0.82 U	82 U	8.2 U	2.0 U	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	
4-Ethyltoluene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.18	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	
4-Methyl-pentanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 U	0.82 U	4.1 U	8.2 U	2.0 U	4.1 U	0.27	0.34 U	0.41 U	0.41 U	0.41 U	0.41 U	
Acetone	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B	3400	710	400	440	670	11	8.5	610	
Benzene	13.0	12.0	6.2	4.8	5.6	32 U	11.0	7.1	11.0	6.3	5.5	8.2	5.0	4.2	4.5	4.2	6.4 U	2.8	2.0	1.1	3.7	0.5	0.5	1.0	
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	1.0 U	1.0 U	5.2 U	10 U	2.6 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 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 U	1.3 U	6.7 U	13 U	3.4 U	3.4 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 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 U	2.1 U	10 U	21 U	5.2 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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 U	0.78 U	3.9 U	7.8 U	1.9 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	
Carbon disulfide	3.2 U	3.2 U	3.2 U	3.2 U	0.80 U	230	4	5.4	8.2	2.9	5.7	12	14	8	15	22	62 U	13	11	25	49	3.1 U	3.1 U	19	
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 U	1.3 U	6.3 U	13 U	1.2	3.1 U	0.4	0.38	0.63 U	0.39	0.63 U	0.39	
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 U	0.92 U	4.6 U	9.2 U	2.3 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	
Chloroethane	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1	3.4	2.6 U	7.5	1.3 U	2.6 U	2.9	5.3	0.26 U	0.26 U	1.5	
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	1.2	4.9 U	9.8 U	1.1	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59	
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	20 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	0.41 U	0.41 U	2.1 U	4.1 U	1.0 U	2.1 U	0.21 U	0.21 U	1	1.1	0.41 U		
cis-1,2-Dichloroethene	2900.00	710.00	400.00	410.00	100.00	150.00	270.00	250.00	170.00	58.00	32.00	43.00	31.00	17.00	27.00	27.00	35.00	11.00	6.90	8.60	14.00	0.40 U	0.40 U	4.30	
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 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 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 U	0.69 U	3.4 U	6.9 U	1.7 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 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 U	1.7 U	8.5 U	17 U	4.3 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	2.7	50 U	3.0	3.2	2.5 U	2.5 U	5.0 U	2.5	5.0 U	2.4	3.7	4.9 U	9.9 U	2.8	4.9 U	2.9	2.6	2.5	2.5	2.1	

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 - 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	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013
Ethanol	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23	19	24 J	150 U	12	290	14	100	9.9	3.5	13
Ethyl acetate	7.3 U	3.6 U	3.6 U	7.3 U	0.90 U	73 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	6.8	3.4	0.72 U	3.8	7.2 U	3.6	26	4.2	30	0.36 U	1.2	2.6	
Ethylbenzene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.12	0.69	0.43 U	0.43 U	0.43 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 U	2.1 U	11 U	21 U	4.2	11 U	1.1 U	1.1 U	1.1 U	1.1 U	
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 U	0.70 U	3.5 U	280 U	70 U	9.4	4.3	2	0.74	2.2	14 U
Isopropyl alcohol	190	5.1	4.6	5.0 U	4.6	290	24	57	35	2.5 U	20	54	59	11	13	25 U	200 U	49 U	13	9.8 U	11	1.1	9.8 U	9.8 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 U	1.7 U	8.7 U	17 U	4.3 U	5.4	0.87 U	1.9	0.75	0.87 U	0.87 U	
Methyl methacrylate																				0.41 U	0.41 U	0.41 U	0.41 U	
Methylene chloride	7.8	7.0 U	9.6	7.0 U	12	720	21	15	7.0 U	25	14 U	8.6	7.0 U	1.4 U	2	6.9 U	69 U	4.2	15	11	2.5	1.8	6.9	1.1
Methyl-t-butyl ether	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	36 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 U	0.72 U	3.6 U	7.2 U	1.8 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
n-Heptane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 U	0.82 U	4.1 U	8.2 U	2.0 U	4.1 U	0.52	0.41 U	0.41 U	0.41 U	0.41 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	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.14	0.73	0.43 U	0.43 U	0.43 U	
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.90 U	0.90 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 U	3.4 U	17 U	140 U	4.1	15	6.9 U	3.9	6.9 U	6.9 U	6.9 U	
Styrene	4.2 U	17	4.2 U	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 U	0.85 U	4.3 U	8.5 U	2.1 U	4.3 U	0.46	0.38	0.43 U	0.43 U	0.43 U	
Tetrachloroethene	210	310	190	97	8	68 U	21	25	19	8.9	6.8 U	6.7	6.8 U	4	4100	6.8 U	14 U	3.5	3.4 U	0.92	2.1	0.68 U	0.68 U	0.71
Tetrahydrofuran	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200	11000	30000	41000	11000	4500	7700	1000	0.29 U	0.29 U	2300
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 U	1.6	3.8 U	7.5 U	0.9	37	0.58	5.6	0.66	0.4	0.43
trans-1,2-Dichloroethene	26	6.1	4.0 U	4.7	1.0 U	40 U	2.6	2.8	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.79 U	0.79 U	4.0 U	7.9 U	2.0 U	2.0 U	0.40 U	0.18	0.40 U	0.40 U	0.40 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	4.4 U	2.2 U	4.4 U	0.91 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	
Trichloroethene	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410	660	790	940	290	170	220	400	0.54 U	0.54 U	150
Trichlorofluoromethane	3500	200	120	67	16	56 U	27	41	2.8 U	53	7	7.4	5.8	5.1	5.8	5.6 U	11 U	3.4	5.6 U	4.9	8.5	2.4	1.4	2.9
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	7.6 U	3.8 U	7.6 U	1.5 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.57	0.77 U	0.61	0.77 U	
Vinyl acetate	15 U	3.6 U	3.6 U	15 U	0.90 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 U	0.70 U	70 U	7.0 U	1.8 U	7.0 U	0.70 U	0.70 U	0.70 U	7.0 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	3.7	3.3	6.2	1.3 U	1.3 U	2.9	4.7	0.26 U	0.26 U	0.26 U

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

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Eastern Small Retail Space								Extraction Well - Center Small Retail Space																
	EW-5-090613 9/6/2013	EW-5-121313 12/13/2013	EW-5-030714 3/7/2014	EW-5-061314 6/13/2014	EW-5-091214 9/12/2014	EW-5-121914 12/19/2014	EW-05-032715 3/27/2015	EW-5-061115 6/11/2015	EW-5-091615 9/16/2015	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-022609 2/18/2009	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			
1,1,1-Trichloroethane	180	40	68	54	74	25	14	0.19 J	55	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130	0.55 U		
1,1,1,2-Tetrachloroethane	0.39 J	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U																
1,1,2,2-Tetrachloroethane	0.32 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	3.4 U	6.8 U	6.8 U	6.8 U	6.8 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	0.69 U	0.69 U		
1,1,2-Trichloroethane	0.26 U	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	0.55 U	0.55 U	2.7 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	0.55 U	0.55 U		
1,1-Dichloroethane	20	4.8	7	7.4	9.3	4.2	2.9	0.4 U	6.9	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21	0.40 U		
1,1-Dichloroethene	4.7	1.5	1.8	2	2.4	1	0.9	0.4 U	1.5 J	850	210	100	110	55	74	87	83	80	6.4	3.5	4.0 U	0.40 U	0.40 U		
1,2,4-Trichlorobenzene	0.35 U	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U	0.74 U	0.74 U	3.7 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	0.74 U	0.74 U		
1,2,4-Trimethylbenzene	0.37	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.16 J	0.22 J	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.49 U	0.49 U	
1,2-Dibromoethane (EDB)	0.36 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	3.8 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	0.77 U	0.77 U		
1,2-Dichlorobenzene	0.28 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U		
1,2-Dichloroethane	0.19 U	0.40 U	0.40 U	0.40 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	0.40 U		
1,2-Dichloropropane	0.22 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	2.3 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U		
1,2-Dichlortetrafluoroethane										7.0 U	7.0 U	7.0 U	7.0 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	7.0 U			
1,3,5-Trimethylbenzene	0.23 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.11 J	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.49 U	0.49 U		
1,3-Butadiene	0.10 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	1.1 U	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.22 U	0.22 U		
1,3-Dichlorobenzene	0.28 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U		
1,4-Dichlorobenzene	0.28 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U		
1,4-Dioxane																									
2-Butanone	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	120	280	300	130	97	160	37	65	8.7	23	1800	110	20	1.9 B		
2-Hexanone	0.49	0.41 U	0.53	0.41 U	0.82 U	0.41 U	0.16 J	0.34 J	2 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.41 U	0.41 U		
4-Ethyltoluene	0.23 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.49 U	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.49 U	0.49 U		
4-Methyl-2-pentanone	0.56	0.41 U	0.41 U	0.46	0.82 U	0.41 U	0.41 U	0.41 U	2 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.41 U	0.41 U		
Acetone	6800	210	380	610	500	98	49	21	550	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 B	15 B		
Benzene	7.1	2.4	3.8	3.0	2.7	3.4	3.1	0.4	2.9	5.2	5.2	4.1	3.2 U	3.2 U	32 U	1.7	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	3.2 U	0.9	1.1
Benzyl chloride	0.24 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2.6 U	5.2 U	5.2 U	5.2 U	5.2 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U		
Bromodichloromethane	0.31 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	3.4 U	6.6 U	6.6 U	6.6 U	6.6 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	0.67 U	0.67 U		
Bromoform	0.48 U	1.0 U	1.0 U	1.0 U	2.1 U	1 U	1 U	1 U	5.2 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	1.0 U	1.0 U		
Bromomethane	0.18 U	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.39 U	1.9 U	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	0.39 U	0.39 U		
Carbon disulfide	77	8.9	26	35	46	13	7.4	0.98 J	56	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	1.6 U	1.6 U	1.6 U	8	12	0.66	0.31 U
Carbon tetrachloride	0.47	0.63 U	0.63 U	0.63 U	0.63 U	0.33 J	0.31 J	0.33 J	3.1 U	6.2 U	6.2 U	6.2 U	6.2 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	0.63 U	0.63 U	
Chlorobenzene	0.22 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	2.3 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U		
Chloroethane	4	0.86	1.9	1.9	1.9	1.6	0.95	0.26 U	0.26 U	1.3 U	140	50	34	18	13	26 U	13	14	11	4	1.3 U	2.8	0.26 U	0.26 U	
Chloroform	1.6	0.49 U	0.59	0.76	0.82	0.53	0.18 J	0.17 J	0.63 J	42	24	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4	0.49 U			
Chloromethane	0.19 U	0.41 U	0.41 U	0.41 U	0.61	0.41 U	0.41 U	0.41 U	2.1 U	2.0 U	2.0 U	2.0 U	2.0 U	34	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 U	1		
cis-1,2-Dichloroethene	13.00	1.90	4.10	4.30	5.00	1.40	0.78	0.4 U	4.00	700.00	360.00	220.00	250.00	150.00	120.00	190.00	170.00	130.00	36.00	11.00	7.90	2.30	0.40 U		
cis-1,3-Dichloropropene	0.21 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	2.3 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 U	0.45 U	
Cyclohexane	0.16 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	1.7 U	3.4 U	3.4 U	3.4 U	3.4 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	0.34 U	0.34 U	
Dibromochloromethane	0.40 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	4.3 U	8.6 U	8.6 U	8.6 U	8.6 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.85 U	0.85 U	
Dichlorodifluoromethane	1.7	2.5	2.1	2.0	2.3	2.5	2.0	3.3	2.2 J	5.0 U	5.0 U	5.0 U	5.0 U	50 U	3.6	3.9	2.7	2.5 U	2.5 U	5.0 U	2.3	3.6			

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 - Eastern Small Retail Space								Extraction Well - Center Small Retail Space															
	EW-5-090613 9/6/2013	EW-5-121313 12/13/2013	EW-5-030714 3/7/2014	EW-5-061314 6/13/2014	EW-5-091214 9/12/2014	EW-5-121914 12/19/2014	EW-05-032715 3/27/2015	EW-5-061115 6/11/2015	EW-5-091615 9/16/2015	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-022609 2/18/2009	EW-6-030609 2/26/2009	EW-6-041409 3/6/2009	EW-6-051509 4/14/2009	EW-6-061109 5/15/2009	EW-6-091709 6/11/2009	EW-6-122909 9/17/2009	EW-6-070110 12/29/2009	EW-6-091610 7/1/2010	EW-6-120710 9/16/2010	EW-6-021711 12/7/2010	EW-6-021711 2/17/2011	
Ethanol	3.5 U	39	43	32	15	33	31	15	17 J	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6	11	
Ethyl acetate	0.17 U	5.5	4.8	3.4	3.6	3.6	2.6	0.36 U	1.8 U	7.3 U	3.6 U	3.6 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	0.36 U	0.36 U		
Ethylbenzene	0.41	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.16 J	0.15 J	2.2 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	4.4 U	0.43 U	0.43 U						
Hexachlorobutadiene	0.50 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	5.3 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	5.3 U	11 U	1.1 U	1.1 U	1.1 U		
Hexane	6.6 U	14. U	14 U	14 U	28 U	14 U	7.4 J	1.4 J	70 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	7.1 U	0.7 U	1.3						
Isopropyl alcohol	4.6 U	2.9	6	11	8.4 J	2 J	9.8 J	9.8 U	49 U	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 U	2.9	
m,p-Xylene	1.2	0.87 U	0.56	0.81	1.7 U	0.24 J	0.39 J	0.54 J	4.3 U	8.6 U	8.6 U	8.6 U	8.6 U	120	4.3 U	8.6 U	0.87 U	0.94						
Methyl methacrylate	0.19 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	2 U														0.41 U		
Methylene chloride	3.4	1.1	0.79	0.99	1.6 J	3.5 U	0.44 J	1.9 J	17 U	7.0 U	7.0 U	7.5	7.0 U	780	12	15	7.0 U	27	10	7.0 U	1.3	2.8		
Methyl-t-butyl ether	0.17 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	1.8 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	3.6 U	0.36 U	0.36 U						
n-Heptane	0.19 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	2 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	4.0 U	0.41 U	0.41 U						
o-Xylene	0.5	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.15 J	0.25 J	2.2 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	4.4 U	0.43 U	0.43 U						
Propylene (Propene)	2.3	6.9 U	6.9 U	6.9 U	14 U	6.9 U	6.9 U	34 U	3.5 U	1.8 U	3.5 U	1.8 U	35 U	0.90 U	0.90 U	3.5 U	3.5 U	8.7 U	6.9 U	0.69 U	1.7 U			
Styrene	0.35	0.43 U	0.43 U	0.43 U	0.85 U	0.43 U	0.43 U	0.43 U	2.1 U	4.2 U	4.2 U	4.2 U	4.2 U	42 U	2.1 U	4.2 U	0.43 U	0.43 U						
Tetrachloroethene	1.7	0.68 U	0.69	1.2	1.2	0.46 J	0.68 U	0.24 J	5.6	330	290	130	190	300	190	210	250	68	34	23	8.1	1.2		
Tetrahydrofuran	26000	1000	2900	2600	3300	460	320	1.9	2900 E	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480	0.29 U	
Toluene	4.2	0.44	1.4	1.7	1.1	0.36 J	0.55	0.83	0.72 J	12	3.8 U	3.8 U	3.8 U	38 U	1.9 U	3.8 U	0.38 U	2.4						
trans-1,2-Dichloroethene	0.19 U	0.40 U	0.40 U	0.40 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	12	6.3	4.2	6.4	4.0 U	40 U	2.6	2.7	2	2.1	2.0 U	4.0 U	0.4 U	0.40 U
trans-1,3-Dichloropropene	0.21 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	2.3 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	4.4 U	0.45 U	0.45 U						
Trichloroethene	770	80	190	160	200	66	38	0.54 U	160	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250	0.54 U	
Trichlorofluoromethane	4.6	3.6	2.7	3.4	4.1	3.1	1.9 J	1.7 J	3.1 J	2300	870	630	350	250	150	230	440	700	320	6.7	25	28	1.7	
Trichlorotrifluoroethane	0.64	0.77 U	0.77 U	0.77 U	1.5 U	0.63 J	0.44 J	0.64 J	15 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	7.6 U	0.77 U	0.86						
Vinyl acetate	3.3 U	7.0 U	7.0 U	7 U	14 U	7 U	7 U	35 U	15 U	3.6 U	15 U	3.6 U	15 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	1.8 U	7.1 U	0.7 U	0.35 U		
Vinyl chloride	3.5	0.26 U	1.1	1.3	0.26 U	0.28	0.15 J	0.26 U	0.87 J	2.6 U	2.6 U	2.6 U	2.6 U	26 U	1.3 U	2.9	0.26 U	0.26 U						

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

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Center Small Retail Space																Extraction Well - Western Small Retail Space						
	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	EW-6-030812 3/8/2012	EW-6-061412 6/14/2012	EW-6-0913412 9/13/2012	EW-6-010313 1/3/2013	EW-6-031513 3/15/2013	EW-6-060713 6/7/2013	EW-6-090613 9/6/2013	EW-6-121313 12/13/2013	EW-6-030714 3/7/2014	EW-6-061314 6/13/2014	EW-6-121914 9/12/2014	EW-6-032715 3/27/2015	EW-6-061115 6/11/2015	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		
1,1,1-Trichloroethane	80	230	33	0.27 U	75	0.55 U	0.55 U	0.55 U	4.3	71	18	13	26	58	19	14	13	5.9	5600	8500	7800	8200	8100
1,1,1,2-Tetrachloroethane		25 U		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U						
1,1,2,2-Tetrachloroethane	6.9 U	14 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	1.4 U	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	
1,1,2-Trichloroethane	5.5 U	11 U	2.7 U	0.27 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	0.55 U	0.55 U	1.1 U	5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	
1,1-Dichloroethane	12	27	6.4	0.20 U	9.6	0.40 U	0.40 U	0.40 U	0.78	13	2.7	2.2	4.7	8.2	3.5	2.8	2.5	1.1	1700	1800	1600	2100	1700
1,1-Dichloroethene	4.0 U	7.9 U	2.0 U	0.20 U	0.84	0.40 U	0.40 U	0.40 U	0.40 U	1.1	0.40 U	0.40 U	0.40 U	0.52	0.4 U	0.4 U	0.4 U	0.79 U	14	15	8.5	9.4	6.6
1,2,4-Trichlorobenzene	7.4 U	30 U	7.4 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	
1,2,4-Trimethylbenzene	4.9 U	9.8 U	2.5 U	0.49 U	0.26	0.6	0.49 U	0.49 U	0.49 U	0.59	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.2 J	0.24 J	0.98 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U
1,2-Dibromoethane (EDB)	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	1.5 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	
1,2-Dichlorobenzene	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,2-Dichloroethane	4.0 U	8.1 U	2.0 U	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	0.40 U	0.40 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloropropane	4.6 U	9.2 U	2.3 U	0.23 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	
1,2-Dichlorotetrafluoroethane																		7.0 U	1.4 U	1.8 U	1.8 U	1.8 U	
1,3,5-Trimethylbenzene	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U	
1,3-Butadiene	2.2 U	4.4 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	
1,3-Dichlorobenzene	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,4-Dichlorobenzene	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,4-Dioxane																		7.0 U	1.4 U	1.8 U	1.8 U	1.8 U	
2-Butanone	59 U	240 U	13	2.1	200	3.7	0.84	1.9	120	95	4	4	6.8	11 J	5.2 J	11 J	13	7 J	8.7	12	7.3	8.5	5.5
2-Hexanone	82 U	8.2 U	2.0 U	0.41 U	0.7	0.52	0.41 U	0.41 U	0.41 U	0.38	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.32 J	0.18 J	0.82 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U
4-Ethyltoluene	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.28	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.12 J	0.98 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U
4-Methyl-2-pentanone	4.1 U	8.2 U	2.0 U	0.41 U	0.35	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.13 J	0.41 U	0.82 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U	
Acetone	48 U	190 U	21	9.9	36	25	6.4	6.3	42	35	17	16	27	36	35	39	35	44	580	38	58	30	24
Benzene	3.2 U	6.4 U	1.6 U	0.3	1.2	0.8	0.4	0.4	0.32 U	1.2	0.4	1.0	0.7	1.1	0.7	0.7	0.6	0.56 J	3.2 U	3.9	4.5	1.9	2.3
Benzyl chloride	5.2 U	10 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	
Bromodichloromethane	6.7 U	13 U	3.4 U	0.34 U	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	1.3 U	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	
Bromoform	10 U	21 U	5.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U	1.0 U	1.0 U	1.0 U	2.1 U	1 U	1 U	2.1 U	11 U	2.1 U	2.6 U	2.6 U	2.6 U		
Bromomethane	3.9 U	7.8 U	1.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.78 U	0.78 U	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	
Carbon disulfide	11	62 U	7.1	3.1 U	29	3.1 U	3.1 U	3.1 U	0.35	74	5.6	6.3	31	71	8	15	14	19	5.7	3.4	2.7	3.7	3.3
Carbon tetrachloride	6.3 U	13 U	3.1 U	0.39	0.34	0.4	0.63 U	0.23	0.63 U	0.48	0.63 U	0.63 U	0.63 U	0.35 J	0.3 J	0.36 J	0.4 J	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	
Chlorobenzene	4.6 U	9.2 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	
Chloroethane	2.6 U	5.3 U	1.3 U	0.26 U	1.4	0.26 U	0.26 U	0.26 U	0.26 U	1.7	0.26 U	0.26 U	0.26 U	0.67	1.1	0.26 U	0.26 U	0.53 U	170	150	88	41	33
Chloroform	4.9 U	9.8 U	1	0.36	0.92	0.21	0.49 U	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.64	1	0.63	0.37 J	0.45 J	0.39 J	4.8 U	1	1.2 U	1.3	1.2 U
Chloromethane	16	45	2.9	1.5	7.8	1.3	1.1	1.2	1.3	35	3.4	1.8	3.3	4.4	1.4	2.4	3.6	3.3	2.0 U	0.40 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	4.0 U	7.9 U	0.83	0.20 U	2.80	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.71	1.10	0.21 J	0.29 J	0.25 J	0.79 U	1100.00	1300.00	1200.00	1700.00	1200.00
cis-1,3-Dichloropropene	4.5 U	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	
Cyclohexane	3.4 U	6.9 U	1.7 U	0.34 U	0.34 U	0.49	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.85 U	0.85 U	0.85 U	0.85 U	0.69 U	3.4 U	5.6	5	3.7	2.1
Dibromochloromethane	8.5 U	17 U	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.85 U	0.30 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	
Dichlorodifluoromethane	4.9 U	9.9 U	3.0	2.2	2.9	2.9	2.6	2.5	2.3	1.3	2.6	2.3	2.0	2.3	2.6	1.8	2.7	5.0 U	2.5	3.2	770.0	2.6	

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																Extraction Well - Western Small Retail Space						
	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	EW-6-030812 3/8/2012	EW-6-061412 6/14/2012	EW-6-091342 9/13/2012	EW-6-010313 1/3/2013	EW-6-031513 3/15/2013	EW-6-060713 6/7/2013	EW-6-090613 9/6/2013	EW-6-121313 12/13/2013	EW-6-030714 3/7/2014	EW-6-061314 6/13/2014	EW-6-091214 9/12/2014	EW-6-121914 12/19/2014	EW-6-032715 3/27/2015	EW-6-091115 6/11/2015	EW-6-091615 9/16/2015	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
Ethanol	38 U	150 U	38 U	29	5.8	68	8.6	3.5	13	14	4.3	7.5 U	6.9	15 U	3.5 J	5.6 J	27	28	350	26	29	17	15
Ethyl acetate	3.6 U	7.2 U	1.8 U	0.52	1.2	24	0.36 U	0.36 U	0.94	0.13 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.37	0.36 U	0.72 U	7.3 U	0.72 U	0.90 U	1.9 U	0.90 U
Ethylbenzene	4.3 U	8.7 U	2.2 U	0.43 U	0.18	0.66	0.43 U	0.43 U	0.43 U	0.38	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.34 J	0.43 U	0.87 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U
Hexachlorobutadiene	11 U	21 U	5.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	2.1 U	22 U	4.3 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
Hexane	3.5 U	280 U	70 U	1.4	1.2	7.6	14 U	0.6	1.6	0.89	14 U	14 U	14 U	28 U	14 U	7.3 J	14 U	28 U	10	10	7.6	5.5	3.1
Isopropyl alcohol	25 U	200 U	49 U	1.3	9.8 U	7.6	0.69	9.8 U	9.8 U	3.4 U	9.8 U	9.8 U	1.1	5.9 J	9.8 U	1.8 J	5 J	4.4 J	210	18	21	12	8.5
m,p-Xylene	8.7 U	17 U	4.3 U	0.87 U	0.24	1.9	0.87 U	0.87 U	0.87 U	0.76	0.87 U	0.87 U	0.52	1.7 U	0.87 U	0.35 J	0.3 J	1.7 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U
Methyl methacrylate	4.1 U	8.2 U	2.0 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
Methylene chloride	6.9 U	69 U	3.6	4.8	2.5	14	2.1	1.4	3.8	0.84	0.99	1.2	1.6 J	3.5 U	0.43 J	3.5 U	6.9 U	9.3	2.6	8	1.8	1.8 U	1.8 U
Methyl-t-butyl ether	3.6 U	7.2 U	1.8 U	0.36 U	0.36 U	0.13	0.36 U	0.36 U	0.13 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.72 U	3.6 U	3.5	2.9	4.9	3.1	3.1
n-Heptane	4.1 U	8.2 U	2.0 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.45	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	4.0 U	1.4	1.0 U	1.0 U	1.0 U
o-Xylene	4.3 U	8.7 U	2.2 U	0.43 U	0.16	0.73	0.43 U	0.43 U	0.43 U	0.37	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.16 J	0.43 U	0.87 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U
Propylene (Propene)	17 U	140 U	3.8	6.9 U	2.8	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	6.9 U	1	2.1 J	0.84 J	0.91 J	6.9 U	14 U	3.5 U	160	110	0.87 U	0.45 U
Styrene	4.3 U	8.5 U	2.1 U	0.43 U	0.2	0.35	0.43 U	0.43 U	0.28	0.43 U	0.43 U	0.43 U	0.85 U	0.43 U	0.094 J	0.85 U	4.2 U	0.84 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Tetrachloroethene	6.8 U	17	2.4	0.76	4.6	0.88	0.68 U	0.68 U	0.83	1.5	1.1	3.3	5.9	3.1	1.4	1.1	1.4 U	66	69	56	84	69	69
Tetrahydrofuran	13000	32000	3900	3.7	8100	0.29 U	0.29 U	0.27	58	35000	650	54	1200	4100	260	680	600	170	41	23	12	14	7.5
Toluene	3.8 U	9.8	1.9 U	0.36	0.7	5.3	0.46	0.31	0.5	2.5	0.38 U	1	0.97	0.68 J	0.25 J	0.49	0.66	0.92	14	2.9	3.6	1.7	0.95 U
trans-1,2-Dichloroethene	4.0 U	7.9 U	2.0 U	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	0.40 U	0.40 U	0.4 U	0.4 U	0.4 U	0.79 U	150	140	90	90	80	
trans-1,3-Dichloropropene	4.5 U	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	1.1 U	
Trichloroethene	190	390	66	0.27 U	180	0.21	0.54 U	0.54 U	5.7	150	36	28	60	110	44	33	25	2.4	230	210	180	180	200
Trichlorofluoromethane	11	34	11	1	15	2	1.9	1.3	4.7	6.2	12	6.9	14	21	15	8.6	12	4.4 J	1800	1400	900	690	640
Trichlorotrifluoroethane	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.6	0.77 U	0.63	0.77 U	0.72	0.77 U	0.77 U	0.77 U	1.5 U	0.63 J	0.41 J	0.58 J	0.61 J	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U
Vinyl acetate	70 U	7.0 U	1.8 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	2.5 U	7.0 U	7.0 U	7.0 U	7 U	7 U	7 U	14 U	15 U	0.72 U	0.90 U	3.6 U	0.90 U		
Vinyl chloride	2.6 U	5.1 U	1.3 U	0.13 U	1.5	0.26 U	0.26 U	0.26 U	0.26 U	2.2	0.26 U	0.26 U	0.26 U	0.65	1.3	0.26 U	0.26 U	0.37 J	280	370	180	48	21

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 - Western Small Retail Space																									
	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 9/15/2011	EW-7-091511 9/15/2011	EW-7-030812 12/8/2011	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 1/3/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013	EW-7-121313 12/13/2013	EW-7-030714 3/7/2014	EW-7-061314 6/13/2014			
1,1,1-Trichloroethane	1600	3600	2600	1400	340	51	250	290	160	110	5.5 U	110	66	11	47	95	0.55 U	3.1	15	76	52	41	30	15		
1,1,1,2-Tetrachloroethane											2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
1,1,2,2-Tetrachloroethane	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	6.9 U	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	
1,1,2-Trichloroethane	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.55 U	0.55 U	0.55 U	5.5 U	1.1 U	0.55 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	
1,1-Dichloroethane	590	1000	1100	970	470	85	320	340	220	150	45	150	80	6.4	42	100	0.40 U	2	7	51	25	12	6.9	5.4		
1,1-Dichloroethene	4.0 U	4.2	4.2	4.5	2.0 U	0.40 U	0.81	0.94	0.63	0.40 U	4.0 U	0.79 U	0.13	2.0 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	
1,2,4-Trichlorobenzene	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	3.0 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	
1,2,4-Trimethylbenzene	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.50 U	0.50 U	0.49 U	0.49 U	0.49 U	4.9 U	0.98 U	0.32	4.9 U	0.32	0.97	0.92	0.3	0.49 U	0.5	0.77	0.58	0.49 U	0.49 U	0.49 U	
1,2-Dibromoethane (EDB)	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.77 U	0.77 U	7.7 U	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	
1,2-Dichlorobenzene	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	6.0 U	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,2-Dichloroethane	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	4.0 U	0.81 U	0.40 U	2.0 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	
1,2-Dichloropropane	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	
1,2-Dichlorotetrafluoroethane	7.0 U	3.5 U	3.5 U	3.5 U	3.5 U	0.70 U	0.70 U	0.70 U																		
1,3,5-Trimethylbenzene	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.50 U	0.50 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U	4.9 U	0.49 U	0.5	0.49 U	0.49 U	0.49 U	0.24	0.32	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
1,3-Dichlorobenzene	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	6.0 U	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,4-Dichlorobenzene	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	6.0 U	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	
1,4-Dioxane																										
2-Butanone	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1	5.3 B	59 U	24 U	6.2	100	14	3.6	18	210	99	12	8.5	5.9	3.8	9.3		
2-Hexanone	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	1	0.40 U	0.41 U	0.41 U	82 U	0.82 U	0.14	4.1 U	0.28	0.64	0.41 U	0.39	0.41 U	0.51	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
4-Ethyltoluene	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.50 U	0.50 U	0.49 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U	4.9 U	0.49 U	0.21	0.49 U	0.49 U	0.17 U	0.27	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	0.40 U	0.40 U	0.41 U	0.41 U	4.1 U	0.82 U	0.13	4.1 U	1.6	0.31	0.55	0.41 U	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	15	24	24	7.9	49	26	25	12	42 B	35 B	48 U	23	12	46	31	17	23	55	28	24	35	14	6.9	19		
Benzene	3.2 U	2.6	2.8	3.0	2.2	1.5	1.7	2.1	1.4	1.6	3.2 U	2.5	1.6	3.2 U	1.5	1.2	0.9	0.5	0.6	1.9	1.9	0.9	1.3	1.1		
Benzyl chloride	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U	1.0 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromodichloromethane	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U	6.7 U	1.3 U	0.67 U	3.4 U	3.2	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	10 U	2.1 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U	0.38 U	0.39 U	0.39 U	3.9 U	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	
Carbon disulfide	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78	0.31 U	3.1 U	6.2 U	3.1 U	31 U	0.41	3.1 U	3.1 U	0.57	7.4	0.42	3.1 U	4.6	7.4	12		
Carbon tetrachloride	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U	0.62 U	0.63 U	0.63 U	6.3 U	1.3 U	0.34	3.1 U	0.3	0.33	0.78	0.47	0.63 U	0.38	0.4	0.63 U	0.63 U	0.63 U	0.63 U	
Chlorobenzene	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	
Chloroethane	7.1	9.6	10	8.1	6.5	1.6	2.2	3.6	2	0.26 U	2.6 U	1.9	0.26 U	2.6 U	0.82	0.26 U	0.26 U	0.26 U	0.92	0.093 U	0.61	0.63	1.6	1.4		
Chloroform	4.8 U	2.7	2.6	4.6	2.7	1.1	4.2	4.4	3.9	3	4.9 U	5	3.8	2.4 U	3.1	4.1	0.49 U	0.36	2	6.6	2.6	2	2.4			
Chloromethane	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U	0.20 U	0.20 U	0.21 U	0.21 U	2.1 U	0.41 U	0.21 U	2.1 U	0.21 U	0.21 U	0.21 U	0.21 U	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	
cis-1,2-Dichloroethene	520.00	1100.00	1200.00	1300.00	680.00	120.00	660.00	490.00	350.00	250.00	65.00	210.00	99.00	5.10	53.00	120.00	0.40 U	1.40	5.10	54.00	24.00	6.00	5.00	4.70		
cis-1,3-Dichloropropene	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	4.5 U	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	
Cyclohexane	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.41	0.34 U	0.34 U	3.4 U	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
Dibromochloromethane	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U	0.86 U	0.85 U	0.85 U	8.5 U	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.30 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	
Dichlorodifluoromethane	5.0 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	1.5	2.1	0.49 U	4.9 U	2.7	2.6	4.9 U	3.0	0.49 U	2.7	2.5	2.0	1.5	0.49 U	2.4	2.0	1.9		

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 - Western Small Retail Space																							
	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-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 1/3/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013	EW-7-121313 12/13/2013	EW-7-030714 3/7/2014	EW-7-061314 6/13/2014	
Ethanol	3.8 U	19	18	12	18	37	31	1.9 U	1.9 U	18	38 U	22	23	160	31	140	1200	27	22	14	30	12	13	32
Ethyl acetate	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	11	0.63	0.36 U	0.36 U	3	3.6	0.13 U	0.36 U	0.94	0.36 U	0.36 U
Ethylbenzene	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U	0.44 U	0.43 U	0.43 U	0.43 U	0.37 U	0.26	4.3 U	0.21	0.47	0.44	0.13	0.43 U	0.44	0.56	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	22 U	11 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97	0.71 U	0.87	0.35 U	3.5 U	28 U	14 U	4	0.55	14 U	1.5	3.5	0.78	0.9	0.9	14. U	14 U	14 U
Isopropyl alcohol	5.0 U	12	17	2.5 U	2.5 U	80	2.2	2.6	2.8	0.25 U	25 U	30	9.8 U	98 U	14	9.8 U	12	9.8 U	9.8 U	3.4 U	17	13	9.8 U	1.8
m,p-Xylene	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	1.4	0.93	1	0.87 U	0.87 U	8.7 U	1.7 U	0.82	8.7 U	0.45	1.3	1.5	0.33	0.5	1	1.5	0.87 U	0.49	0.9
Methyl methacrylate										0.41 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	
Methylene chloride	20	29	16	7.0 U	27	1.4 U	2.4	0.81	1.9	2.4	6.9 U	6.9 U	1.5	33	2.1	5.4	5.6	10	1.5	1.7	1.7	1.1	0.82	0.85
Methyl-t-butyl ether	3.6 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
n-Heptane	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	0.40 U	0.40 U	0.41 U	0.41 U	0.41 U	0.82 U	0.22	4.1 U	0.49	0.75	0.41 U	0.41 U	0.41 U	0.59	1.1	0.41 U	0.44	2.2
o-Xylene	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 U	0.43 U	0.43 U	0.37 U	0.38	4.3 U	0.18	0.52	0.51	0.15	0.43 U	0.4	0.73	0.43 U	0.43 U	0.43 U
Propylene (Propene)	3.5 U	0.90 U	0.90 U	3.5 U	3.5 U	0.69 U	1.8 U	0.69 U	0.69 U	1.7 U	17 U	14 U	6.9 U	13	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	6.9 U	6.9 U	1.1	
Styrene	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	0.42 U	0.67	0.47	0.43 U	0.43 U	4.3 U	0.85 U	0.49	4.3 U	0.66	0.41	0.43 U	0.14	0.43 U	0.41	0.45	0.43 U	0.43 U	0.45
Tetrachloroethene	40	140	230	410	130	74	510	610	190	110	120	450	170	5.6	130	200	1.3	3	100	410	150	140	81	110
Tetrahydrofuran	3.0 U	5.6	15	4.1	1.5 U	2800	0.7	18	6.1	2.7	3900	7.9	9.9	1000	13	1.1	8.2	120	2000	10	4.6	2100	1400	2100
Toluene	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4	4.8	2.2	0.47	0.88	3.8 U	1.9	1.1	8.1	1.1	1.9	1.6	0.63	1.1	3.1	6.5	1	1.2	1.4
trans-1,2-Dichloroethene	48	120	140	150	84	22	120	110	78	58	4.0 U	82	54	3.8	37	45	0.40 U	2.1	7.1	64	32	13	9.2	7.7
trans-1,3-Dichloropropene	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	4.5 U	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	110	330	420	920	420	190	690	730	440	310	260	680	310	53	320	450	1.1	17	170	740	350	280	210	190
Trichlorofluoromethane	190	310	660	1400	620	210	690	700	530	740	330	2500	1000	180	1300	2000	3.5	91	280	1500	990	1100	690	300
Trichlorotrifluoroethane	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	0.77 U	7.7 U	1.5 U	1	3.8 U	0.78	0.57	0.77 U	0.71	0.77 U	1.1	1.1	0.9	0.77 U	0.77 U
Vinyl acetate	15 U	1.8 U	1.8 U	7.1 U	3.6 U	0.71 U	0.36 U	0.71 U	0.70 U	0.35 U	70 U	0.70 U	0.35 U	7.0 U	2.2	0.70 U	0.70 U	0.70 U	7.0 U	2.5 U	7.0 U	7.0 U	7 U	
Vinyl chloride	2.6 U	2.7	3.2	1.3 U	1.6	1	0.26 U	1.6	0.41	0.26 U	2.6 U	0.51 U	0.26 U	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.9	0.090 U	0.26 U	0.26 U	1.8

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 - Western Small Retail Space					CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space																	
	EW-7- 091214 9/12/2014	EW-7- 121914 12/19/2014	EW-07- 032715 3/27/2015	EW-7- 061115 6/11/2015	EW-7- 091615 9/16/2015		IA-5 011609 1/16/2009	IA-5- 020309 2/3/2009	IA-5- 021109 2/11/2009	IA-5- 021809 2/18/2009	IA-5- 022609 2/26/2009	IA-5- 030609 3/6/2009	IA-5- 041409 4/14/2009	IA-5- 051509 5/15/2009	IA-5- 061109 6/11/2009	IA-5- 091709 9/17/2009	IA-5- 122909 12/29/2009	IA-5- 032610 3/26/2010	IA-5- 070110 7/1/2010	IA-5- 091610 9/16/2010	IA-5- 120810 12/8/2010	IA-5- 021711 2/17/2011	IA-5- 060211 6/2/2011	
1,1,1-Trichloroethane	52	6.1	25	14	63	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	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U	1.1																		
1,1,2,2-Tetrachloroethane	0.69 U	0.69 U	0.69 U	0.69 U	1.4 U	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	1.1 U	0.55 U	0.55 U	0.55 U	1.1 U	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	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	20	1.8	4.9	3.7	16	430	1.8	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,1-Dichloroethene	0.4 U	0.4 U	0.4 U	0.4 U	0.79 U	20	0.58	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2,4-Trichlorobenzene	1.5 U	0.74 U	0.74 U	0.74 U	1.5 U	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.98 U	0.49 U	1.4	0.44 J	0.98 U	52	0.25 U	0.32	0.33	0.36	0.25 U	0.25 U	0.20	0.25	0.35	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
1,2-Dibromoethane (EDB)	0.77 U	0.77 U	0.77 U	0.77 U	1.5 U	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,2-Dichloroethane	0.4 U	0.4 U	0.4 U	0.16 J	0.81 U	0.31	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.46 U	0.46 U	0.46 U	0.92 U	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane						NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 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	0.98 U	0.49 U	0.69	0.23 J	0.98 U	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.44 U	0.22 U	0.22 U	0.22 U	0.44 U	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.080 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	1.2 U	0.6 U	0.6 U	0.17 J	1.2 U	24	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dioxane						NA																	0.18 U	
2-Butanone	7.2 J	35	9.7 J	8.3 J	5 J	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	
2-Hexanone	0.82 U	0.41 U	1	0.38 J	0.82 U	NA	0.20 U	0.48	0.38	0.27	0.20 U	0.20 U	0.47	0.45	1.1	0.48	0.20 U	0.23	0.44	0.20 U	0.20 U	0.20 U	4.1 U	
4-Ethyltoluene	0.98 U	0.49 U	0.33 J	0.12 J	0.98 U	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	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.82 U	0.41 U	0.46	0.41 U	0.82 U	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.18	0.20 U	0.20 U	0.68	0.23	0.20 U	0.20 U	1.1	0.20 U	0.20 U	0.31		
Acetone	18 J	9.4 J	13	7.4 J	8.2 J	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	
Benzene	0.59 J	0.5	2.1	2.3	2.3	3.3	0.79	0.60	0.99	1.6	0.41	0.55	0.62	0.49	0.53	0.35	0.45	0.65	0.16 U	1.1	0.26	1.1	0.33	
Benzyl chloride	0.52 U	0.52 U	0.52 U	0.52 U	1 U	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	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.67 U	0.67 U	0.67 U	0.67 U	1.3 U	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	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	2.1 U	1 U	1 U	2.1 U	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	
Bromomethane	0.78 U	0.39 U	0.39 U	0.39 U	0.78 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	6.2 U	3.7	10	16	6.2 U	NA	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	0.16 U	0.16 U	
Carbon tetrachloride	0.63 U	0.36 J	0.21 J	0.33 J	0.38 J	0.54	0.33	0.44	0.50	0.55 [a]	0.47	0.61 [a]	0.44	0.64 [a]	0.47	0.46	0.39	0.41	0.48	0.53	0.44	0.54	0.54	
Chlorobenzene	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.53 U	0.26 U	0.97	1.3	0.45 J	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	3.8	0.91	2.1	2.6	4.1	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.55	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	0.83 U	0.41 U	0.41 U	0.41 U	0.83 U	80	1.1	1.0	1.5	1.4	1.1	1.1	1.0	1.0	1.4	1.0	1.0	2.0	1.2	1.0	1.0	0.76	0.96	1.1
cis-1,2-Dichloroethene	18.00	0.99	3.10	2.5	9.10	100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
cis-1,3-Dichloropropene	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	
Cyclohexane	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.40	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46	
Dibromochloromethane	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.5	2.6	1.5	2.3	2.9	500	2.0	2.2	2.5	2.7	2.6	2.6	1.9	2.5	2.2	2.1	1.9	1.8	2.4	1.9	2.3	3.1	1.7	

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 - Western Small Retail Space					CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space																	
	EW-7-091214 9/12/2014	EW-7-121914 12/19/2014	EW-07-032715 3/27/2015	EW-7-061115 6/11/2015	EW-7-091615 9/16/2015		IA-5-011609 1/16/2009	IA-5-020309 2/3/2009	IA-5-021109 2/11/2009	IA-5-021809 2/18/2009	IA-5-022609 2/26/2009	IA-5-030609 3/6/2009	IA-5-041409 4/14/2009	IA-5-051509 5/15/2009	IA-5-061109 6/11/2009	IA-5-091709 9/17/2009	IA-5-122909 12/29/2009	IA-5-032610 3/26/2010	IA-5-070110 7/1/2010	IA-5-091610 9/16/2010	IA-5-120810 12/8/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	
Ethanol	18	11	7.5 U	42	93	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	
Ethyl acetate	0.72 U	1.7	29	0.36 U	0.72 U	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.87 U	0.43 U	1.2	0.23 J	0.87 U	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.30	0.23	0.22 U	0.22 U	0.44	0.91	0.22 U	0.30	0.36	
Hexachlorobutadiene	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	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	0.53 U	0.53 U	0.53 U	
Hexane	28 U	14 U	8.1 J	14 U	28 U	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1.0	0.52	0.57	0.43	0.48	1.0	0.30	1.3	1.7	
Isopropyl alcohol	20 U	4.8 J	12	6.6 J	22	NA	3.8	3.5	580	2.9	3.0	1.3	1.7	2.0	2.0	19	3.5	3.8	3.8	1.9	8.2	0.12 U	1.7	1.2 U
m,p-Xylene	1.7 U	0.26 J	0.68 J	0.5 J	1.7 U	500	0.60	0.74	0.91	1.2	0.43 U	0.43 U	0.68	0.51	0.88	0.59	0.43 U	0.46	1.2	2.4	0.43 U	0.85	0.57	
Methyl methacrylate	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	NA														0.20 U	0.20 U	0.20 U	0.20 U	
Methylene chloride	1.3 J	3.5 U	0.49 J	3.5 U	6.9 U	17	2.0	3.6	5.2	1.1	1.2	0.74	2.5	2.9	2.0	0.70 U	4.3	2.2	1.3	0.75	0.65	2.8	4.2	
Methyl-t-butyl ether	0.72 U	0.36 U	0.36 U	0.36 U	0.72 U	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.57 J	4.4	0.43	0.15 J	0.82 U	NA	0.20 U	0.20 U	0.36	0.35	0.20 U	0.20 U	0.23	0.38	0.48	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
o-Xylene	0.87 U	0.43 U	0.57	0.22 J	0.87 U	500	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.32	0.22 U	0.22 U	0.31	0.22 U	0.31	0.22 U	0.30	0.26		
Propylene (Propene)	14 U	6.9 U	0.96 J	1.6 J	1.3 J	NA	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	0.090 U	0.090 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U		
Styrene	0.85 U	0.43 U	0.34 J	0.46	0.85 U	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	0.30	0.21 U	0.35	0.32	0.58	0.21 U	0.21 U	0.21 U	
Tetrachloroethene	370	18	81	89	390	5	0.39	0.34 U	0.43	0.43	0.34 U	0.34 U	0.24 U	0.47	0.34 U	0.41	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.39	2.4	0.34 U
Tetrahydrofuran	4.6	350	660	720	3.5	NA	3.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	
Toluene	0.59 J	0.63	0.72	1.0	0.59 J	500	1.3	1.1	3.0	3.3	0.65	0.51	1.5	2.8	1.5	0.54	1.5	0.70	6.2	0.19 U	1.8	0.90		
trans-1,2-Dichloroethene	28	1.9	6.7	4.9	22	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U		
Trichloroethene	440	46	180	170	610	1	5.5	0.39	0.27 U	0.27 U	0.27 U	0.27 U	0.22	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28	0.27 U	0.27 U	0.27 U	
Trichlorofluoromethane	1100	200	460	340	1300	500	3.0	1.3	1.7	1.8	1.5	1.7	1.2	1.3	2.0	1.2	1.8	1.4	1.5	6.3	1.3	1.7	1.4	
Trichlorotrifluoroethane	1 J	0.78	0.8 J	0.74 J	1.3 J	NA	0.62	0.54	0.48	0.45	0.64	0.48	0.53	0.61	0.54	0.5	0.54	0.55	0.55	0.43	0.52	0.66	0.69	
Vinyl acetate	1.2 J	7 U	7 U	7 U	14 U	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.50 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.43	0.18 U	3.5 U	
Vinyl chloride	0.26 U	0.16 J	0.82	1.4	0.51 U	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	

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

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space															Indoor Air - Center Small Retail Space									
	IA-5 091511 9/15/2011	IA-5 120811 12/8/2011	IA-5 030812 3/8/2012	IA-5 061412 6/14/2012	IA-5 091312 9/13/2012	IA-5 010313 1/3/2013	IA-5 031513 3/15/2013	IA-5 060713 6/7/2013	IA-5 090613 9/6/2013	IA-5 121313 12/13/2013	IA-5 030714 3/7/2014	IA-5 091214 9/12/2014	IA-5 121914 6/13/2014	IA-5 032715 3/27/2015	IA-5 061115 6/11/2015	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			
1,1,1-Trichloroethane	0.27 U	0.15	0.082 U	0.065	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	0.042 J	0.19 U	0.077 J	110	3.9	0.27 U	0.29	0.27 U	0.27 U	1.6		
1,1,1,2-Tetrachloroethane	0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U									
1,1,2,2-Tetrachloroethane	0.34 U	0.16	0.10 U	0.21 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	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U		
1,1,2-Trichloroethane	0.27 U	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U		
1,1-Dichloroethane	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
1,1-Dichloroethene	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2,4-Trichlorobenzene	0.74 U	22	0.45 U	0.45 U	0.52 U	0.52 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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U		
1,2,4-Trimethylbenzene	0.25 U	1.3	0.15 U	0.16	0.29	0.17 U	0.072	0.21	0.27	0.17 U	0.69	0.23	0.17 U	0.17 U	0.13 J	0.12 J	0.23	0.75	0.32	0.29	1.5	0.25 U	0.25 U	0.18 U	
1,2-Dibromoethane (EDB)	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	23	0.18 U	0.18 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	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U		
1,2-Dichloroethane	0.20 U	0.066	0.061 U	0.044	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.045 J	0.065 J	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U		
1,2-Dichloropropane	0.23 U	0.14 U	0.069 U	0.067	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	0.1 J	0.16 U	0.23	0.23	0.23	0.23	0.23	0.23	0.17 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		
1,3,5-Trimethylbenzene	0.25 U	0.39	0.15 U	0.077	0.11	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.17 U	0.17 U	0.038 J	0.038 J	0.066 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	
1,3-Butadiene	0.11 U	0.066 U	0.066 U	0.053	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.058	0.078 U	0.19	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.080 U					
1,3-Dichlorobenzene	0.30 U	0.076	0.18 U	0.18 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	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U		
1,4-Dichlorobenzene	0.30 U	0.37	0.18 U	0.18 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	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U		
1,4-Dioxane	0.18 U																								
2-Butanone	5.9 U	0.98	2.0	0.94	2.3	1.3	1.3	3.2	2.4	2.2	1.8	3.7	0.8 J	0.8 J	2.1 J	1.4 J	1.6 J	120	10	3.2	2.9	2.4	2.3	1.0	
2-Hexanone	0.20 U	0.13	0.32	0.081	0.17	0.16	0.16	0.48	0.44	0.14 U	0.32	0.52	0.14 U	0.43	0.16	0.14 U	0.20 U	0.42	0.37	0.34	0.20 U	0.37	0.14 U		
4-Ethyltoluene	0.25 U	0.25	0.15 U	0.053	0.097	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.17 U	0.17 U	0.041 J	0.079 J	0.25 U	0.25 U	0.47	0.25 U	0.25 U	0.18 U			
4-Methyl-2-pentanone	0.20 U	0.13	0.18	0.34	0.22	0.14 U	0.14 U	0.19	0.14 U	0.14 U	0.24	0.35	0.14 U	0.14 U	0.19	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U		
Acetone	15	6.6	11	13	13	9.0	9.7	24	19	40	12	25	10	10	14	12	18	44	14	14	25	11	8.5	6.1	
Benzene	0.29	0.38	0.34	0.20	0.53	0.53	0.80	0.27	0.68	0.55	2.9	0.55	0.4	0.4	0.54	0.33	0.76	1.0	0.60	0.98	4.1 [a]	0.41	0.70	0.59	
Benzyl chloride	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U		
Bromodichloromethane	0.34 U	0.20 U	0.10 U	0.20 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	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U		
Bromoform	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U		
Bromomethane	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U		
Carbon disulfide	1.6 U	0.93 U	0.93 U	0.93 U	0.11	1.1 U	1.1 U	0.13	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.096 J	0.098 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U
Carbon tetrachloride	0.48	0.49	0.46	0.42	0.38	0.58 [a]	0.37	0.59	0.47	0.50	0.43	0.45	0.36	0.36	0.35	0.37	0.44	0.39	0.42	0.52	0.59 [a]	0.47	0.6 [a]	0.42	
Chlorobenzene	0.23 U	0.48	0.14 U	0.14 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U		
Chloroethane	0.13 U	0.079 U	0.079 U	0.079 U	0.059	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U		
Chloroform	0.24 U	0.49	0.073 U	0.14	0.17	0.17 U	0.069	0.17 U	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.099 J	0.062 J	0.14 J	0.19	0.24 U	0.24 U	0.24 U		
Chloromethane	1.3	1.0	1.1	1.4	1.2	1.0	1.2	1.5	1.2	1.3	1.3	1.2	0.81	0.81	0.97	1.3	1.1	1.3	0.90	1.4	1.5	1.0	1.1	1.1	
cis-1,2-Dichloroethene	0.20 U	0.18	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.075 J	0.40	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
cis-1,3-Dichloropropene	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U		
Cyclohexane	0.17 U	0.10 U	0.10 U	0.12	0.21	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.12 U		
Dibromochloromethane	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U		
Dichlorodifluoromethane	2.0	2.6	2.0	2.9	2.8	2.8	1.6	3.4	1.9	2.5	1.3	2.2	1.9	1.9	1.3	2	1.7	2.0	2.1	2.6	2.8	2.6	2.6	2.0	

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 - Eastern Small Retail Space															Indoor Air - Center Small Retail Space									
	IA-5 091511 9/15/2011	IA-5- 120811 12/8/2011	IA-5- 030812 3/8/2012	IA-5- 061412 6/14/2012	IA-5- 091312 9/13/2012	IA-5- 010313 1/3/2013	IA-5- 031513 3/15/2013	IA-5- 060713 6/7/2013	IA-5- 090613 9/6/2013	IA-5- 121313 12/13/2013	IA-5- 030714 3/7/2014	IA-5- 061314 6/13/2014	IA-5- 091214 9/12/2014	IA-5- 121914 12/19/2014	IA-05- 032715 3/27/2015	IA-5- 061115 6/11/2015	IA-5- 091615 9/16/2015	IA-6 011609 1/16/2009	IA-6- 020309 2/1/2009	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	
Ethanol	7.9	5.4	14	43	11	3.9	1.9	12	15	4.5	18	20	7.7	7.7	12	25	13	41	23	12	40	13	12	8.6	
Ethyl acetate	0.18 U	0.11 U	0.48	0.21	0.66	0.59	0.13 U	1.5	0.29	0.83	0.17	0.43	0.29	0.29	5	0.17	0.61	0.37 U	0.37 U	0.18 U	0.22	0.37 U	0.18 U	0.26 U	
Ethylbenzene	0.22 U	1.2	0.13 U	0.16	0.31	0.15	0.091	0.15 U	0.26	0.15 U	0.65	0.3	0.12 J	0.12 J	0.17	0.12 J	0.34	0.29	0.25	0.33	1.6	0.22 U	0.22 U	0.21	
Hexachlorobutadiene	0.53 U	0.17	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	
Hexane	7.0 U	0.36	0.48	0.57	1.2	0.95	1.1	1.4	0.75	0.46	1.4	0.56	0.3 J	0.3 J	5.1	0.42 J	0.92 J	1.2	0.78	0.70	2.6	0.33	0.40	0.63	
Isopropyl alcohol	6.4	2.9 U	2.9 U	2.9 U	3.3	0.75	3.4 U	3.4 U	3.4 U	2.4	6.5	0.47 J	0.47 J	2.6 J	9.4	5.3	4.7	6.6	3.2	4.9	1.7	1.6	0.18 U		
m,p-Xylene	0.53	3.0	0.12	0.36	0.97	0.60	0.24	0.49	0.81	0.3	1.9	1	0.54	0.54	0.5	0.4	1.0	0.82	0.72	0.84	4.9	0.43 U	0.43 U	0.51	
Methyl methacrylate	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Methylene chloride	7.7	1.6	1.6	1.1	2.3	5.2	2.0	3.0	1.1	0.83	0.67	0.73	0.28 J	0.28 J	1 J	0.48 J	0.52 J	2.5	5.2	0.59	1.6	0.83	0.69	2.0	
Methyl-t-butyl ether	0.18 U	0.039	0.11 U	0.11 U	0.18	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	
n-Heptane	0.20 U	0.081	0.089	0.18	0.32	0.14 U	0.14 U	0.18	0.46	0.14 U	0.75	0.56	0.14 U	0.14 U	0.17	0.17	0.35	0.27	0.20 U	0.32	1.3	0.20 U	0.20 U	0.21	
o-Xylene	0.22 U	1.0	0.13 U	0.14	0.35	0.19	0.10	0.17	0.33	0.15 U	0.75	0.32	0.13 J	0.13 J	0.18	0.13 J	0.36	0.36	0.26	0.34	1.8	0.22 U	0.22 U	0.19	
Propylene (Propene)	3.4 U	2.1 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	
Styrene	0.21 U	1.0	0.13 U	0.76	0.24	0.15 U	0.15 U	0.15 U	0.20	0.15 U	0.18	0.15 U	0.15 U	0.15 U	0.036 J	0.096 J	0.18	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	
Tetrachloroethene	0.58	5.7	0.15	0.15	1.6	0.24 U	0.12	0.24 U	0.24 U	0.24 U	0.24 U	0.39	0.54	0.13 J	0.13 J	0.39	0.2 J	0.18 J	1.2	0.34 U	0.45	1.2	0.34 U	0.34 U	0.72
Tetrahydrofuran	0.15 U	0.10	0.088 U	0.10	0.10 U	0.10 U	0.10 U	0.14	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	77	2.8	0.32	0.15 U	0.15 U	0.22
Toluene	0.97	1.9	0.28	0.78	2.0	0.56	0.61	0.95	2.6	0.89	3.8	2.2	0.78	0.78	0.74	0.75	2.7	1.8	1.3	2.5	11	0.65	0.71	1.3	
trans-1,2-Dichloroethene	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
trans-1,3-Dichloropropene	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	
Trichloroethene	0.27 U	0.63	0.081 U	0.045	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.23	0.19 U	0.19 U	0.19 U	0.083 J	0.19 U	0.17 J	13	1.7	0.27 U	0.34	0.27 U	0.27 U	0.60	
Trichlorofluoromethane	1.7	1.1	0.98	1.7	1.6	1.8	1.3	2.1	1.6	1.6	1.7	1.4	1.3	1.3	1.1	1.5	1.3	4.8	1.3	1.7	2.5	1.5	1.7	1.4	
Trichlorotrifluoroethane	0.63	0.69	0.46	0.53	0.6	0.61	0.6	1.4	0.63	0.54	0.47	0.58	0.64	0.64	0.49 J	0.67 J	0.59 J	0.64	0.51	0.48	0.45	0.64	0.48	0.53	
Vinyl acetate	0.18 U	0.11 U	0.21 U	0.55	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.50 U	
Vinyl chloride	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.09 U	0.09 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 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-6-051509 5/15/2009	IA-6-061109 6/11/2009	IA-6-091709 9/17/2009	IA-6-122909 12/29/2009	IA-6-032610 3/26/2010	IA-6-070110 7/1/2010	IA-6-091610 9/16/2010	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-01412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 1/3/2013	IA-6-031513 3/15/2013	IA-6-060713 6/7/2013	IA-6-090613 9/6/2013	IA-6-121313 12/13/2013	IA-6-030714 3/7/2014	IA-6-061314 6/13/2014	IA-6-091214 9/12/2014	IA-6-121914 12/19/2014	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.085	0.082 U	0.072	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12	0.19 U		
1,1,1,2-Tetrachloroethane											0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 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	0.069 U	0.24 U		
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U		
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	2.8	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U		
1,2,4-Trimethylbenzene	0.25 U	0.29	0.34	0.25 U	0.25 U	0.25 U	0.33	0.25 U	0.35	0.25 U	0.25	0.16	0.15 U	0.21	0.17 U	0.17 U	0.076	0.21	0.27	0.17 U	0.55	0.21	0.29	0.17 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 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	0.077 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	1.7	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	0.056	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.039 J	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.061	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	0.046 U	0.16 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.18 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	0.059	0.15 U	0.091	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.071 J	0.17 U		
1,3-Butadiene	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.044 U	0.078 U			
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U														
1,4-Dioxane																									
2-Butanone	2.5	4.1	2.4	1.8	1.4	1.1	0.89	0.87	1.9 B	2.9 U	5.9 U	1.3	0.63	1.4	2.8	1.4	1.4	0.91	2.8	2.2	1.6	3.1	0.66 J	0.81 J	
2-Hexanone	0.62	0.72	0.70	0.20 U	0.26	0.20 U	0.20 U	0.20 U	0.22	4.1 U	0.60	0.15	0.12 U	0.20	0.27	0.14 U	0.20	0.14 U	0.48	0.14 U	0.29	0.41	0.043 J	0.14 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	0.15 U	0.15 U	0.080	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.073 J	0.17 U		
4-Methyl-2-pentanone	0.34	0.70	0.29	0.20 U	0.20 U	0.20 U	0.40	0.20 U	0.20 U	0.28	0.31	0.13	0.12 U	0.92	0.25	0.14 U	0.14 U	0.14 U	0.30	0.14 U	0.22	0.24	0.09	0.14 U	
Acetone	11	28	20	14	6.5	14	13	11 B	14 B	19 B	26	10	7.4	15	18	11	10	20	29	27	12	26	9.2	8.2	
Benzene	0.47	0.43	0.31	0.40	0.55	0.19	0.60	0.44	1.3	0.29	0.31	0.42	0.39	0.20	0.49	0.48	0.80	0.23	0.70	0.53	2.4	0.7	0.3	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	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.052 U	0.18 U		
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.20	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.23	0.057 J	1.1 U
Carbon tetrachloride	0.77 [a]	0.45	0.42	0.40	0.43	0.55 [a]	0.44	0.46	0.57 [a]	0.64 [a]	0.52	0.46	0.48	0.44	0.37	0.55 [a]	0.42	0.58 [a]	0.47	0.45	0.45	0.43	0.42	0.33	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.45	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	0.046 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.2	0.053 U	0.093 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.36	0.36	0.24 U	0.24 U	0.24 U	0.10	0.073 U	0.24	0.17 U	0.075	0.17 U	0.19	0.17 U	0.25	0.11	0.082 J				
Chloromethane	1.1	1.9	0.97	1.8	1.4	1.0	1.1	0.95	0.92	1.1	1.4	1.3	1.2	1.4	1.2	1.1	1.4	1.5	1.1	1.2	1.3	1.9	1	0.88	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.098	0.059 U	0.052	0.042	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.20	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.069 U	0.12 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.3 U	0.085 U	0.3 U
Dichlorodifluoromethane	2.7	2.5	2.2	1.9	1.6	2.4	1.6	1.9	3.1	1.8	1.9	2.9	2.0	2.9	2.8	2.7	1.7	3.4	1.9	2.5	1.5	2.1	1.9		

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-6-051509 5/15/2009	IA-6-061109 6/11/2009	IA-6-091709 9/17/2009	IA-6-122909 12/29/2009	IA-6-032610 3/26/2010	IA-6-070110 7/1/2010	IA-6-091610 9/16/2010	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-061412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 1/3/2013	IA-6-031513 3/15/2013	IA-6-060713 6/7/2013	IA-6-090613 9/6/2013	IA-6-121313 12/13/2013	IA-6-030714 3/7/2014	IA-6-061314 6/13/2014	IA-6-091214 9/12/2014	IA-6-121914 12/19/2014	
Ethanol	51	31	12	10	7.1	18	36	5.9	10	7.7	14	24	41	67	23	8.4	2.9	20	21	6.1	20	38	160	9.4	
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	0.48	0.69	0.31	1.0	0.42	0.34	0.64	0.42	0.13 U	0.17	0.34	1.7	0.13 U	
Ethylbenzene	0.22 U	0.24	0.23	0.22 U	0.22 U	0.22 U	0.43	0.22 U	0.45	0.22 U	0.22 U	0.15	0.22	0.71	0.23	0.16	0.11	0.18	0.29	0.15 U	0.56	0.2	0.18	0.088 J	
Hexachlorobutadiene	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 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	0.21 U	0.37 U	0.21 U	0.37 U	
Hexane	0.38	0.68	0.45	0.18 U	0.22	1.3	0.69	0.39	1.5	0.41	7.0 U	0.41	0.48	0.73	1.0	0.64	0.76	0.83	0.85	0.38	1.2	0.69	0.35 J	0.29 J	
Isopropyl alcohol	4.5	22	7.0	1.4	4.9	1.0	3.2	1.1	2.8	1.2 U	11	2.9 U	2.9 U	6.7	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	0.85	1.7	8.1	3.4	0.52 J	
m,p-Xylene	0.43 U	0.67	0.62	0.43 U	0.51	0.58	1.1	0.43 U	1.2	0.48	0.59	0.45	0.54	0.73	0.38	0.58	0.31	0.54	0.81	0.20	1.6	0.6	0.4	0.3	
Methyl methacrylate																									
Methylene chloride	2.0	2.6	0.70 U	2.9	0.70 U	4.5	0.64	0.94	3.0	1.0	1.7 U	1.5	1.8	1.5	2.2	1.6	1.1	1.3	1.1	0.71	0.64	0.83	0.64 J	0.28 J	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.14	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.072 U	0.13 U	
n-Heptane	0.20 U	0.26	0.20 U	0.20 U	0.20 U	1.4	0.47	0.20 U	0.35	0.20 U	0.20	0.11	0.15	0.25	0.31	0.095	0.10	0.14	0.47	0.14 U	0.71	1.1	0.16	0.14 U	
o-Xylene	0.22 U	0.25	0.23	0.22 U	0.22 U	0.22 U	0.42	0.22 U	0.40	0.22 U	0.22	0.17	0.13	0.29	0.12	0.18	0.13	0.21	0.32	0.15 U	0.64	0.24	0.14	0.085 J	
Propylene (Propene)	0.090 U	0.090 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.81	1.4 U	2.4 U	
Styrene	0.25	0.21 U	0.23	0.21 U	0.21 U	0.24	0.29	0.21 U	0.21 U	0.27	0.22	0.13	0.13 U	1.2	0.054	0.15 U	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.16	0.15 U	0.077 J	0.15 U
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	1.6	0.34 U	0.58	0.68	0.15	0.57	2.6	0.24 U	0.12	0.24 U	0.24 U	0.24 U	0.24	0.32	0.49	0.12 J
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15	0.12	0.088 U	0.088 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.17	0.046 J	0.1 U
Toluene	0.81	2.0	1.1	0.49	1.6	1.7	2.6	0.40	2.9	0.93	1.2	1.2	1.4	1.1	1.5	0.56	0.65	1.1	2.6	0.49	3.4	1.3	0.72	0.5	
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.30	0.27 U	0.27 U	0.27 U	0.27 U	0.19	0.081 U	0.24	0.20	0.19 U	0.072	0.19 U	0.19 U	0.19 U	0.21	0.19 U	0.12	0.19 U	
Trichlorofluoromethane	1.2	2.2	1.2	1.7	1.3	1.5	3.1	1.1	1.6	1.1	1.7	1.4	1.0	1.6	1.7	2.0	1.3	2.1	1.7	1.5	1.7	1.3	1.3	1.3	
Trichlorotrifluoroethane	0.74	0.63	0.48	0.51	0.55	0.55	0.42	0.52	0.69	0.67	0.56	0.68	0.44	0.57	0.62	0.61	1	0.66	0.58	0.46	0.53	0.54	0.64		
Vinyl acetate	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	2.5 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.084	0.09 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 - Western Small Retail Space																							
	IA-06-032715 3/27/2015	IA-6-061115 6/11/2015	IA-6-091615 9/16/2015	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	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 9/15/2011	IA-7-120811 12/8/2011	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	
1,1,1-Trichloroethane	0.19 U	0.19 U	0.14 J	44	2.4	0.40	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069	0.082 U	0.088	
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.44 U																		0.62 U	0.37 U	0.37 U	
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	
1,1,2-Trichloroethane	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	1.3	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	0.52	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U
1,2,4-Trichlorobenzene	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.45 U	0.45 U	0.17	
1,2,4-Trimethylbenzene	0.13 J	0.13 J	0.066 J	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	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32	0.36	0.21
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	
1,2-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	
1,2-Dichloroethane	0.14 U	0.054 J	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.070	0.061 U	0.051	
1,2-Dichloropropane	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	
1,2-Dichlorotetrafluoroethane				0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U				
1,3,5-Trimethylbenzene	0.038 J	0.052 J	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.10	0.15	0.083	
1,3-Butadiene	0.061 J	0.078 U	0.14	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.080 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	
1,3-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	
1,4-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.065	
1,4-Dioxane																								
2-Butanone	1 J	1.2 J	1.1 J	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2	0.49	2.1	4.3	1.8	0.42	1.7 B	4.7	5.9 U	2.1	0.97	1.1
2-Hexanone	0.18	0.12 J	0.14 U	0.20 U	0.29	0.20 U	0.91	0.20 U	0.14 U	0.53	1.5	0.53	0.20 U	0.20 U	0.82	0.55	0.20 U	0.20 U	1.4 J	0.73	0.12 U	0.081	0.23	
4-Ethyltoluene	0.045 J	0.055 J	0.059 J	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	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074	0.097	0.065	
4-Methyl-2-pentanone	0.12 J	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.42	0.20 U	0.20 U	0.14 U	0.22	0.79	0.24	0.20 U	0.20 U	0.43	0.61	0.20 U	0.20 U	0.53	0.36	0.15	0.13	1.4
Acetone	9.2	11	17	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12	41	27	12 B	15 B	48 B	38	17	13	18
Benzene	0.5	0.23	0.56	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43	0.52	0.53	0.56	0.45	1.1	0.41	0.34	0.44	0.36	0.20	
Benzyl chloride	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	
Bromodichloromethane	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	
Bromoform	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	
Bromomethane	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	
Carbon disulfide	0.039 J	0.083 J	0.16 J	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.93 U	0.93 U	
Carbon tetrachloride	0.31	0.37	0.41	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	0.50	0.47	0.45	0.56 [a]	0.69 [a]	0.50	0.45	0.46	0.43
Chlorobenzene	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	
Chloroethane	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	
Chloroform	0.069 J	0.15 J	0.18	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34	0.12	0.073 U	
Chloromethane	0.95	1.2	1.1	1.7	0.98	1.4	1.5	1.0	1.2	1.1	0.93	1.8	1.2	2.1	1.2	1.3	1.4	0.99	1.0	1.6	1.6	1.3	1.6	1.2
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.1 J	0.29	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.064	0.059 U	0.12 U
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	
Cyclohexane	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.32	0.70	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	
Dibromochloromethane	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	
Dichlorodifluoromethane	1.4	2.6	1.7	2.1	2.2	2.6	2.7	2.6	2.6	2.0	2.4	2.7	2.3	2.1	1.8	2.7	1.7	2.0	3.1	2.5	1.8	2.8	2.1	2.7

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 - Western Small Retail Space																								
	IA-06-032715 3/27/2015	IA-6-061115 6/11/2015	IA-6-091615 9/16/2015	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	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 12/8/2011	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	
Ethanol	17	29	31	7.3	16	11	26	7.9	8.4	7.1	11	14	11	10	13	39	240	13	14	28	76	60	70	110	
Ethyl acetate	0.3	0.13 U	0.51	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.70	0.21	1.8	0.94	0.39
Ethylbenzene	0.18	0.13 J	0.22	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	0.45	0.45	0.22 U	0.22 U	0.68	0.45	0.24	0.12	0.24	
Hexachlorobutadiene	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U		
Hexane	4.9 J	0.32 J	0.72 J	0.90	0.87	0.91	2.0	1.1	0.60	0.69	0.33	1.5	0.88	0.25	0.33	0.70	0.64	0.50	1.3	0.58	7.0 U	3.9	0.80	0.67	
Isopropyl alcohol	3.1 J	4.7	7.7	3.7	6.2	3.6	8.3	0.25 U	2.7	0.18 U	7.0	14	4.0	1.9	18	5.8	28	2.8	11	1.2 U	77	2.9 U	2.9 U	48	
m,p-Xylene	0.4	0.35	0.53	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	1.2	1.2	0.43 U	0.43 J	1.5	1.1	0.72	0.30	0.54	
Methyl methacrylate	0.14 U	0.14 U	0.14 U															0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.12 U	
Methylene chloride	0.49 J	0.41 J	0.49 J	1.9	5.7	0.92	1.5	6.3	1.4	4.2	2.3	5.7	0.70 U	2.9	0.70 U	1.3	0.60	1.3	2.5	1.1	1.7 U	13	2.8	1.4	
Methyl-t-butyl ether	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U		
n-Heptane	0.15	0.14 J	0.24	0.20	0.20 U	0.37	1.2	0.20 U	0.20 U	0.17	0.20 U	0.34	0.37	0.20 U	0.29	0.50	0.68	0.33	0.47	2.0	1.1	0.46	0.47	0.65	
o-Xylene	0.18	0.13 J	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	0.60	0.28	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.30	0.17	0.20	
Propylene (Propene)	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	0.090 U	0.090 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U		
Styrene	0.036 J	0.093 J	0.06 J	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	0.70	0.39	0.21 U	0.21 U	0.97	0.63	0.18	0.097	0.26	
Tetrachloroethene	0.72	0.21 J	0.34	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U	0.48	0.34 U	0.34 U	1.0	0.34 U	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66	0.14	0.15		
Tetrahydrofuran	0.1 U	0.1 U	0.077 J	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	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18	0.088 U	0.088 U	0.088	
Toluene	0.76	0.77	1.8	1.5	1.6	2.7	7.5	1.5	0.76	0.48	0.61	2.3	4.0	0.57	7.2	8.4	3.5	0.48	1.6	6.6	3.7	1.2	0.48	1.4	
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U		
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	
Trichloroethene	0.075 J	0.19 U	0.44	4.6	1.1	0.28	0.58	0.27 U	0.27 U	0.30	0.27 U	0.27 U	0.27 U	0.40	0.27 U	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16	0.081 U	0.077	
Trichlorofluoromethane	1	1.5	1.3	4.7	1.4	1.7	3.1	1.6	1.7	1.3	1.1	1.9	1.3	1.7	1.3	1.3	2.9	1.2	1.6	1.3	1.6	1.1	1.7		
Trichlorotrifluoroethane	0.47 J	0.67 J	0.58 J	0.62	0.57	0.47	0.44	0.66	0.45	0.54	0.69	0.57	0.51	0.54	0.64	0.54	0.43	0.55	0.67	0.76	0.54	0.67	0.44	0.53	
Vinyl acetate	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.50 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	
Vinyl chloride	0.09 U	0.09 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	

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 - Western Small Retail Space													
	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013	IA-7-121313 12/13/2013	IA-7-030714 3/7/2014	IA-7-061314 6/13/2014	IA-7-091214 9/12/2014	IA-7-121914 12/19/2014	IA-07-032715 3/27/2015	IA-7-061115 6/11/2015	IA-7-091615 9/16/2015
1,1,1-Trichloroethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.055 U	0.19 U	0.19 U	0.19 U	0.054 J
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.069 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	0.46	0.17 U	0.10	0.58	0.40	0.70	0.25	0.38	0.31	0.37	0.052 J	0.33	0.21	0.15 J
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.27 U	0.077 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.11	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.065 J	0.19	0.18
1,2-Dichloropropane	0.094	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.085	0.16 U	0.16 U	0.16 U	0.16 J
1,2-Dichlorotetrafluoroethane														
1,3,5-Trimethylbenzene	0.26	0.17 U	0.17 U	0.17 U	0.17 U	0.23	0.17 U	0.17 U	0.17 U	0.057 J	0.17 U	0.083 J	0.083 J	0.048 J
1,3-Butadiene	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.48	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U	0.06 J	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	0.063	0.21 U	0.21 U	0.21 U	0.21 U	0.086	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.16 J	0.15 J	0.055 J
1,4-Dioxane														
2-Butanone	2.8	1.9	1.9	1.7	1.6	3.8	0.69	1.5	3	2.2 J	0.75 J	1.4 J	1.7 J	1.7 J
2-Hexanone	0.41	0.20	0.35	0.14 U	0.15	1.1	0.14 U	0.37	0.35	0.41	0.14 U	0.43	0.17	0.14 U
4-Ethyltoluene	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.20	0.17 U	0.17 U	0.17 U	0.065 J	0.17 U	0.09 J	0.069 J	0.055 J
4-Methyl-2-pentanone	0.29	0.18	0.14 U	0.21	0.20	0.44	0.14 U	0.14 U	0.34	0.18	0.14 U	0.18	0.15	0.14 U
Acetone	24	14	15	49	46	46	20	15	30	41	12	16	24	39
Benzene	0.49	0.58	0.87	0.32	0.43	1.8	0.54	1.9	0.57	0.36	0.4	0.57	0.27	0.91
Benzyl chloride	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	0.052 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.056 J	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	0.090	1.1 U	1.1 U	0.16	0.60	0.14	1.1 U	1.1 U	0.15	0.11 J	1.1 U	0.042 J	0.1 J	0.15 J
Carbon tetrachloride	0.38	0.51	0.39	0.55 [a]	0.46	0.45	0.49	0.42	0.45	0.46	0.33	0.34	0.36	0.39
Chlorobenzene	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	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U
Chloroform	0.20	0.17 U	0.082	0.21	0.47	0.17	0.24	0.17 U	0.18	0.12	0.096 J	0.079 J	0.19	0.23
Chloromethane	1.3	1.1	1.4	1.5	1.3	1.2	1.2	1.4	1.4	0.76	0.86	1	1.3	1.3
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.086 J
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.30	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.29 U	0.30 U	0.30 U	0.30 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	2.9	2.6	1.7	3.1	2.1	1.5	2.7	1.5	2.1	2.2	1.8	1.3	1.9	1.8

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

Parameter (ug/m ³)	Indoor Air - Western Small Retail Space													
	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013	IA-7-121313 12/13/2013	IA-7-030714 3/7/2014	IA-7-061314 6/13/2014	IA-7-091214 9/12/2014	IA-7-121914 12/19/2014	IA-07-032715 3/27/2015	IA-7-061115 6/11/2015	IA-7-091615 9/16/2015
Ethanol	60	52	11	45	21	40	25	50	79	96	39	110	110	440 E
Ethyl acetate	0.57	0.77	0.13 U	5.5	1.3	1.9	0.34	0.56	0.41	0.37	0.13 U	0.64	0.39	1.1
Ethylbenzene	0.45	0.19	0.14	0.36	0.48	0.62	0.15 U	0.43	0.35	0.2	0.085 J	0.58	0.19	0.3
Hexachlorobutadiene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	0.97	0.86	0.87	2.9	1.3	0.97	0.39	1.1	0.9	0.37 J	0.35 J	4.9 J	0.36 J	0.67 J
Isopropyl alcohol	22	3.3	3.4 U	3.4 U	3.4 U	6.0	40	1.9	11.0	2 U	1.4 J	30.0	11	30
m,p-Xylene	1.4	0.71	0.40	1.1	1.2	1.8	0.25	1.2	1.1	0.54	0.29 J	0.67	0.48	0.64
Methyl methacrylate	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	2.3	2.6	1.4	6.1	1.3	1.1	0.76	0.68	0.74	0.63 J	0.39 J	0.6 J	0.58 J	0.54 J
Methyl-t-butyl ether	0.11	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U	0.13 U	0.072 U	0.13 U	0.13 U	0.063 J	0.13 U
n-Heptane	0.99	0.14 U	0.16	0.42	1.1	1.6	0.45	1.3	4.6	1.9	4.3	0.19	0.14 J	0.25
o-Xylene	0.56	0.24	0.15	0.40	0.44	0.85	0.15 U	0.44	0.39	0.19	0.088 J	0.26	0.19	0.23
Propylene (Propene)	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	2.4 U	1.5	1.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	0.89	0.15 U	0.081	0.29	2.6	0.37	0.15 U	0.17	0.29	0.24	0.15 U	0.096 J	0.29	0.27
Tetrachloroethene	1.7	0.24 U	0.15	0.24 U	5.5	0.22	0.24 U	0.40	0.34	0.13	0.13 J	0.23 J	0.25	0.23 J
Tetrahydrofuran	0.10 U	0.10 U	0.10 U	0.10 U	0.65	0.15	0.10 U	0.10 U	0.14	0.13	0.1 U	0.11	0.15	0.11
Toluene	2.4	0.99	1.0	3.8	4.7	7.8	1.1	2.8	2.2	1.3	0.72	1.1	1	2.1
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	0.15	0.19 U	0.068	0.19 U	0.53	0.14	0.19 U	0.28	0.19 U	0.077	0.19 U	0.1 J	0.19 U	0.31
Trichlorofluoromethane	1.8	1.8	1.5	2.5	1.8	1.9	1.6	1.7	1.4	1.3	1.4	1.2	1.5	1.3
Trichlorotrifluoroethane	0.58	0.6	0.87	1	0.63	0.52	0.6	0.45	0.52	0.58	0.63	0.64 J	0.65 J	0.59 J
Vinyl acetate	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U	2.5 U	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	0.090 U	0.090 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:

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

Prepared by / Date: AKN 10/12/15

Checked by / Date: DEH 10/13/15

NA - not available

U - Not detected, value is the detection limit

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

J - Indicates compound was detected at an estimated value.

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

Bolded and shaded values are above the CT target

5 indoor air concentration for industrial/commercial scenarios

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

Date	Pressure Differential (inches of water)		
	VMW-5	VMW-6	VMW-7
2/3/2009	-0.25	-0.17	0.00
2/18/2009	-0.212	-0.155	-0.011
2/26/2009	-0.230	-0.120	-0.025
3/6/2009	-0.200	-0.086	-0.012
4/14/2009	-0.108	-0.054	-0.014
5/15/2009	-0.081	-0.073	-0.016
6/11/2009	-0.090	-0.076	-0.098
9/17/2009	-0.110	-0.102	+0.074
12/29/2009**	-0.011	-0.010	-0.061
3/26/2010	-0.245	-0.142	-0.018
7/1/2010	-0.542	-0.114	-0.176
9/16/2010	-0.247	-0.874	-0.013
12/7/2010	-0.044	-0.028	+0.022
2/17/2011	-0.212	-0.599	-0.337
6/2/2011	-0.277	-0.236	-0.138**
9/15/2011	-0.234	-0.212	-0.010
12/8/2011	-0.609	-0.115	-0.009
3/8/2012	-0.003	-0.246	-0.114
6/14/2012	-0.237	-0.103	-0.132
9/13/2012	-0.243	-0.119	-0.210
1/3/2013	-0.150	-0.060	-0.052
3/15/2013	-0.228	-0.354	-0.002
6/7/2013	-0.226	-0.123	-0.011
9/6/2013	-0.232	-0.829	-0.007
10/3/2013	NM	NM	-0.006
12/13/2013	-0.215	-0.002	-0.002
3/7/2014	-0.177	-0.002	-0.002
6/13/2014	-0.185	-0.010	-0.011
9/12/2014	-0.258	-0.256	-0.014
12/19/2014	-0.222	-0.100	-0.001
3/27/2015	-0.301	-0.097	-0.036
6/11/2015	-0.23***	-0.1***	NM***
9/16/2015	-0.246	-0.050	-0.013

** ASD system offline.

NM = Not Measured

*** Due to Digital Manometer reading high range only at the time of measurement, readings are in tenths of inches of water. VMW-7 was not measured due to the low range of the vacuum.

Prepared by/Date: MAM 09/17/15

Checked by/Date: DEH 10/8/15

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																					
	AA-1-011609 1/16/2009	AA-1-020309 2/3/2009	AA-1-021109 2/11/2009	AA-1-021809 2/18/2009	AA-1-022609 2/26/2009	AA-1-030609 3/6/2009	AA-1-033109 3/31/2009	AA-1-041409 4/14/2009	AA-1-042409 4/24/2009	AA-1-051509 5/15/2009	AA-1-061109 6/11/2009	AA-1-091709 9/17/2009	AA-1-092409 9/24/2009	AA-1-100109 10/1/2009	AA-1-100809 10/8/2009	AA-1-122909 12/29/09	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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U								
1,1,1,2-Tetrachloroethane																						
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U								
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U								
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U								
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	0.30	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U								
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U								
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U								
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	0.35 U								
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.50	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	0.17	1.3	0.11 U	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U								
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U								
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.53	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 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	1.2	1.2	2.0	0.81	1.6	1.6	0.88	1.5	1.4
2-Hexanone	0.20 U	0.22	0.57	0.35	0.20 U	0.20 U	0.20 U	0.14 U	0.26	0.39	0.20 U	0.34	0.20 U	0.33	0.23	0.20 U	0.20 U	0.32	0.20 U	0.20 U	0.29	0.29
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.60	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U								
4-Methyl-2-pentanone	0.20 U	0.20 U	0.27	0.63	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
Acetone	7.3	8.0	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5.0	3.7	9.5	12
Benzene	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.30	0.40	0.49	0.38	0.35	0.25	0.20	0.42	0.79	0.68	0.63	0.41	0.69	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U								
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U								
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U								
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U								
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	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U							
Carbon tetrachloride	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.40	0.40	0.43	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U								
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U								
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U								
Chloromethane	1.1	0.90	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	1.2	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U								
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U								
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U								
Dichlorodifluoromethane	2.0	2.2	2.6	2.7	2.6	2.6	2.8	2.0	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1

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

Parameter (ug/m ³)	Outdoor Air Reference Locations																					
	AA-1-011609 1/16/2009	AA-1-020309 2/3/2009	AA-1-021109 2/11/2009	AA-1-021809 2/18/2009	AA-1-022609 2/26/2009	AA-1-030609 3/6/2009	AA-1-033109 3/31/2009	AA-1-041409 4/14/2009	AA-1-042409 4/24/2009	AA-1-051509 5/15/2009	AA-1-061109 6/11/2009	AA-1-091709 9/17/2009	AA-1-092409 9/24/2009	AA-1-100109 10/1/2009	AA-1-100809 10/8/2009	AA-1-122909 12/29/09	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
Ethanol	4.0	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4.0
Ethyl acetate	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U							
Ethylbenzene	0.22 U	0.25	0.52	2.0	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	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
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91	0.24	0.23	1.1
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1.0	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	1.5	0.80	0.73	0.69	
m,p-Xylene	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U	0.50	0.47	0.43 U	0.49	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	0.70 U	4.2	0.70 U	23	4.6	1.3	1.9	1.7	0.70 U	0.70 U	0.70 U
Methyl- <i>t</i> -butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U								
n-Heptane	0.20 U	0.27	0.92	1.6	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.40	0.23	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.26	0.20 U	0.20 U	0.20 U	0.20 U
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Propylene (Propene)	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.090 U	0.13 U	0.18 U	0.090 U	0.090 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U								
Tetrachloroethene	0.34 U	0.34 U	0.73	0.77	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.52	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	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	0.15 U	0.15 U	0.15 U	0.19	0.15 U	0.15 U					
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2	0.61	0.5	0.78	0.94	0.64	0.97	0.46	1.1	0.75
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U								
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U								
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	0.30	0.27 U	0.27 U	0.27 U							
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2.0	1.7	0.92	1.3	1.5	2.0	1.1	1.4	1.2	1.5	2.2	1.2	1.2	1.6	1.5	1.5	1.2
Trichlorotrifluoroethane	0.68	0.53	0.50	0.47	0.64	0.48	0.51	0.27 U	0.64	0.67	0.56	0.47	0.49	0.45	0.46	0.54	0.49	0.55	0.54	0.54	0.62	0.45
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 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 ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																					
	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013	AA-1-030714 3/07/2014	AA-1-061314 6/13/2014	AA-1-091214 9/12/2014	AA-1-121914 12/19/2014	
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	0.29	0.082 U	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.055 U	0.19 U	
1,1,1,2-Tetrachloroethane									0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 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	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.24 U	0.069 U	0.24 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.16	0.04 U	0.14 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	0.74 U	0.62	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19	0.17 U	0.17 U	0.51	0.069 J	0.17 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	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.27 U	0.27 U	0.077 U	0.27 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 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	0.069 U	0.14 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	0.046 U	0.16 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U																			
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.098 U	0.17 U
1,3-Butadiene	0.11 U	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.078 U	0.078 U	0.078 U	0.044 U	0.078 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	
1,4-Dioxane								0.18 U														
2-Butanone	2.4	2.3	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2.0	0.89	1.9	3.9	3.7	0.94	0.82	1.4	2.2	1.1 J	1.2 J	
2-Hexanone	0.49	0.49	0.41	0.20 U	0.20 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U	0.14 U	0.26	0.34	0.16	0.14 U	
4-Ethyltoluene	0.25 U	0.25 U	0.30	0.25 U	0.34	0.25 U	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.098 U	0.17 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	2.8	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.23	0.10	0.14 U	0.083	0.24	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2	0.036 J	0.14 U	
Acetone	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12	26	9.3	22	25	10	
Benzene	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.40	0.29	0.20	0.68	0.42	1.0	0.31	0.70	0.95	0.43	1.0	0.9	0.2	0.6	
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	0.16 U	0.16 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	0.052 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 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	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 U	0.14 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.098 J	1.1 U
Carbon tetrachloride	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43	0.45	0.22	0.42	0.45	0.36	
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	0.14 U	0.14 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	0.046 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.10	0.17 U	0.17 U	0.17 U	0.08	0.082 J	
Chloromethane	1.1	0.96	0.99	0.94	1.0	0.96	1.4	0.062 U	1.1	1.5	1.1	1.0	1.6	1.4	1.1	0.96	1.1	1.3	1.4	0.64	0.96	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 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	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.31	0.069 U	0.12 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.29 U	0.30 U	0.30 U	0.30 U	0.30 U	0.085 U	0.3 U	
Dichlorodifluoromethane	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	2.0	2.4	2.8	2.5	1.7	3.0	2.0	1.8	2.7	1.4	2	2.2	2.1	

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

Parameter (ug/m ³)	Outdoor Air Reference Locations																				
	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013	AA-1-030714 03/07/14	AA-1-061314 6/13/2014	AA-1-091214 9/12/2014	AA-1-121914 12/19/2014
Ethanol	3.3	4.0	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	6.7	5.4	9.0	17.0	2.9	2.7
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U	0.13 U	0.18	0.13 U	0.17	0.13 U
Ethylbenzene	0.22 U	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	0.15 U	0.16	0.44	0.047 J	0.046 J
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U	0.37 U	
Hexane	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81	0.32	0.44	1.2	0.19 J	0.39 J
Isopropyl alcohol	1.6	0.79	0.25 U	0.29	2.4	1.2 U	4.9 U	0.60	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U	0.77	0.92	3.1	0.61 J	3.4 U
m,p-Xylene	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.30 U	0.34	0.58	0.21	0.53	0.30 U	0.42	1.4	0.14 J	0.11 J
Methyl methacrylate				0.20 U	0.48	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	
Methylene chloride	0.35 U	1.1	1.1	0.66	3.0	2.3	1.7 U	1.5	1.6	3.0	2.1	4.4	2.9	2.3	9.1	1.0	0.76	0.55	1.20	0.54 J	0.47 J
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	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U	0.13 U	0.072 U	0.13 U	
n-Heptane	0.20 U	0.20 U	0.91	0.20 U	0.95	0.20 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18	0.14 U	0.21	0.62	0.054 J	0.14 U
o-Xylene	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.20	0.15 U	0.24	0.15 U	0.17	0.5	0.054 J	0.046 J
Propylene (Propene)	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	2.4 U	1.3	1.4 U	2.4 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.10	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052	0.15 U	0.15 U	0.16	0.085 U	0.15 U
Tetrachloroethene	0.34 U	0.34 U	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.10 U	0.20 U	0.87	0.24 U	0.90	0.24 U	0.24 U	0.30	0.24 U	0.24 U	0.40	0.07	0.09 J
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.23	0.10 U	0.059 U	0.1 U
Toluene	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3	0.35	1.2	2.6	0.33	0.35
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 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	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11	0.19 U	0.19 U	0.052 J	0.19 U	
Trichlorofluoromethane	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.5	1.3	1.8	11	3.3	1.5	1.1	1.4	1.3	1.3
Trichlorotrifluoroethane	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1.0	0.60	0.55	0.55	0.46	0.54	0.57	0.63
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	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U	1.4 U	2.5 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	0.090 U	0.090 U	0.026 U	0.09 U

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

Parameter (ug/m ³)	Outdoor Air Reference Locations			Extraction Well - Large Retail Space																		
	AA-01-032715 3/27/2015	AA-1-061115 6/11/2015	AA-1-091615 9/16/2015	EW-Combined-020309 2/3/2009	EW-COMBINE D-021109 2/11/2009	EW-COMBINE D-022609 2/18/2009	EW-COMBINE D-041409 2/26/2009	EW-COMBINE D-042409 4/14/2009	EW-COMBINE D-091709 4/24/2009	EW-COMBINE D-092409 9/17/2009	EW-COMBINE D-100109 9/24/2009	EW-COMBINE D-100809 10/1/2009	EW-COMBINE D-012810 10/8/2009	EW-COMBINE D-020510 1/28/2010	EW-COMBINE D-021210 2/5/2010	EW-COMBINE D-021910 2/12/2010	EW-COMBINE D-043010 2/19/2010	EW-COMBINE D-052810 4/30/2010	EW-COMBINE D-070110 5/28/2010	EW-COMBINE D-071210 7/1/2010	EW-COMBINE D-091610 9/16/2010	
1,1,1-Trichloroethane	0.19 U	0.19 U	0.073 J	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400	1700	2000	4700	
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.44 U																			
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	6.8 U	6.8 U	14 U	14 U	6.8 U	0.34 U	3.4 U	6.8 U	14 U	14 U	0.68 U	6.8 U	0.34 U	0.68 U	0.68 U	6.8 U	0.68 U	0.68 U	
1,1,2-Trichloroethane	0.19 U	0.19 U	0.19 U	5.4 U	5.4 U	11 U	11 U	5.4 U	0.65	2.7 U	5.4 U	11 U	11 U	0.54 U	5.4 U	0.27 U	0.54 U	0.54 U	5.4 U	0.54 U	0.55	
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310	200	270	290	330	
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	30	40	52	81	
1,2,4-Trichlorobenzene	0.26 U	0.26 U	0.26 U	7.4 U	7.4 U	15 U	15 U	7.4 U	0.37 U	3.7 U	7.4 U	15 U	15 U	0.74 U	7.4 U	0.37 U	0.74 U	0.74 U	7.4 U	0.74 U	0.74 U	
1,2,4-Trimethylbenzene	0.2	0.059 J	0.29	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.27 U	7.6 U	7.6 U	16 U	16 U	7.6 U	0.38 U	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.38 U	0.76 U	0.76 U	7.6 U	0.76 U	0.76 U	
1,2-Dichlorobenzene	0.21 U	0.21 U	0.21 U	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3.0 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	0.60 U	
1,2-Dichloroethane	0.14 U	0.054 J	0.14 U	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.20 U	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U	0.40 U	
1,2-Dichloropropane	0.16 U	0.16 U	0.16 U	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	4.6 U	0.46 U	0.46 U	
1,2-Dichlortetrafluoroethane				7.0 U	7.0 U	14 U	14 U	7.0 U	0.35 U	3.5 U	7.0 U	14 U	14 U	0.70 U	7.0 U	0.35 U	0.70 U	0.70 U	7.0 U	0.70 U	0.70 U	
1,3,5-Trimethylbenzene	0.062 J	0.17 U	0.076 J	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	
1,3-Butadiene	0.078 U	0.078 U	0.18	2.2 U	2.2 U	4.4 U	4.4 U	2.2 U	0.11 U	2.3 U	4.5 U	8.9 U	8.9 U	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U	4.5 U	0.22 U	0.22 U	
1,3-Dichlorobenzene	0.21 U	0.21 U	0.21 U	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3.0 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	0.60 U	
1,4-Dichlorobenzene	0.21 U	0.21 U	0.21 U	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3.0 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	0.60 U	
1,4-Dioxane																						
2-Butanone	0.96 J	2.1 J	1 J	37	32	48	60	21	40	7.8	31	30	21	4.0	11	10	9.0	12	22	22	10	
2-Hexanone	0.17	0.17	0.14 U	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.50	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U	0.40 U	
4-Ethyltoluene	0.079 J	0.17 U	0.093 J	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	
4-Methyl-2-pentanone	0.092 J	0.14 U	0.14 U	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.59	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.28	0.40 U	0.40 U	4.0 U	0.40 U	0.40 U	
Acetone	8.7	10	13	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	9.6 U	16	24	16	6.6	
Benzene	0.7	0.41	0.82	14	7.3	8.4	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U	0.61	3.2 U	0.63	0.43	0.74	5.5	0.84	1.7	
Benzyl chloride	0.18 U	0.18 U	0.18 U	5.2 U	5.2 U	11 U	11 U	5.2 U	0.26 U	2.6 U	5.2 U	11 U	11 U	0.52 U	5.2 U	0.26 U	0.52 U	0.52 U	5.2 U	0.52 U	0.52 U	
Bromodichloromethane	0.24 U	0.24 U	0.24 U	6.6 U	6.6 U	14 U	14 U	6.6 U	0.33 U	3.3 U	6.6 U	14 U	14 U	0.66 U	6.6 U	0.33 U	0.66 U	0.66 U	6.6 U	0.66 U	0.66 U	
Bromoform	0.36 U	0.36 U	0.36 U	11 U	11 U	21 U	21 U	11 U	0.51 U	5.1 U	11 U	21 U	21 U	1.1 U	11 U	0.51 U	1.1 U	1.1 U	11 U	1.1 U	1.1 U	
Bromomethane	0.14 U	0.14 U	0.14 U	3.8 U	3.8 U	7.6 U	7.6 U	3.8 U	0.19 U	1.9 U	3.8 U	7.6 U	7.6 U	0.38 U	3.8 U	0.19 U	0.38 U	0.38 U	3.8 U	0.38 U	0.38 U	
Carbon disulfide	0.057 J	1.1 U	0.09 J	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U	4.3	3.2 U	0.17	3.8	0.77	3.2 U	1.1	1.3	
Carbon tetrachloride	0.34	0.36	0.43	6.2 U	6.2 U	13 U	13 U	6.2 U	0.57	3.1 U	6.2 U	13 U	13 U	0.62 U	6.2 U	0.38	0.62 U	0.62 U	6.2 U	0.73	1.1	
Chlorobenzene	0.16 U	0.16 U	0.16 U	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	7.2	0.46 U	0.46 U	
Chloroethane	0.093 U	0.093 U	0.093 U	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8	7.2	9.4	17	
Chloroform	0.065 J	0.11 J	0.18	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	6.0	7.9	8.0	8.3	
Chloromethane	1.1	1.2	1.1	2.0 U	2.0 U	4.0 U	4.0 U	2.0 U	8.2	1.0 U	2.0 U	4.0 U	4.0 U	0.20 U	2.0 U	0.10 U	0.20 U	0.20 U	2.0 U	0.20 U	0.20 U	
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	180	260	260	360	
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.44 U	
Cyclohexane	0.12 U	0.12 U	0.12 U	3.4 U	3.4 U	6.8 U	6.8 U	3.4 U	0.17 U	1.7 U	3.4 U	6.8 U	6.8 U	0.34 U	3.4 U	0.17 U	0.34 U	0.34 U	3.4 U	0.34 U	0.55	
Dibromochloromethane	0.3 U	0.3 U	0.3 U	8.6 U	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.43 U	0.86 U	0.86 U	8.6 U	0.86 U	0.86 U	
Dichlorodifluoromethane	1.4	2.3	1.7	5.0 U	5.0 U	10 U	110	5.0 U	2.8	2.5 U	5.0 U	10 U	10 U	2.4	5.0 U	2.2	2.7	1.7	5.0 U	2.5	1.6	

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations			Extraction Well - Large Retail Space																			
	AA-01-032715 3/27/2015	AA-1-061115 6/11/2015	AA-1-091615 9/16/2015	EW-Combined-020309 2/3/2009	EW-COMBINE D-021109 2/11/2009	EW-COMBINE D-021809 2/18/2009	EW-COMBINE D-022609 2/26/2009	EW-COMBINE D-041409 4/14/2009	EW-COMBINE D-042409 4/24/2009	EW-COMBINE D-091709 9/17/2009	EW-COMBINE D-092409 9/24/2009	EW-COMBINE D-100109 10/1/2009	EW-COMBINE D-100809 10/8/2009	EW-COMBINE D-012810 1/28/2010	EW-COMBINE D-020510 2/5/2010	EW-COMBINE D-021210 2/12/2010	EW-COMBINED-021910 2/19/2010	EW-COMBINE D-043010 4/30/2010	EW-COMBINE D-052810 5/28/2010	EW-COMBINE D-070110 7/1/2010	EW-COMBINE D-091610 9/16/2010		
Ethanol	2 J	5	12	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10	19 U	15	1.9 U		
Ethyl acetate	0.27	0.13 U	0.68	7.3 U	3.6 U	7.2 U	15 U	7.3 U	0.37 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U	0.36 U		
Ethylbenzene	0.19	0.1 J	0.37	9.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.58		
Hexachlorobutadiene	0.37 U	0.37 U	0.37 U	22 U	22 U	43 U	43 U	22 U	1.1 U	5.3 U	11 U	22 U	22 U	1.1 U	11 U	0.53 U	1.1 U	1.1 U	11 U	1.1 U	1.1 U		
Hexane	5.1	0.29 J	1 J	16	4.9	270	7.2 U	3.6 U	2.3	1.9	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.74	0.36 U	0.92	3.6 U	0.44	0.71 U		
Isopropyl alcohol	0.65 J	0.44 J	2.7 J	610	2.4 U	15	9.9 U	5.0 U	0.25 U	22	5.0 U	9.9 U	9.9 U	2.3	5.0 U	1.0	0.50 U	2.6	2.4 U	0.24 U	0.50 U		
m,p-Xylene	0.66	0.24 J	1.2	25	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.49	0.86 U	0.86 U	8.6 U	0.86 U	1.6		
Methyl methacrylate	0.14 U		0.14 U																				
Methylene chloride	0.44 J	0.47 J	0.48 J	12	7.0 U	14 U	14 U	19	2.6	7.0 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U	1.4 U	7.0 U	2.1	0.90		
Methyl-t-butyl ether	0.13 U	0.13 U	0.13 U	3.6 U	3.6 U	7.2 U	7.2 U	3.6 U	0.18 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U	0.36 U		
n-Heptane	0.19	0.14 U	0.39	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.20 U	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U	0.40 U		
o-Xylene	0.25	0.11 J	0.40	8.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.56		
Propylene (Propene)	2.4 U	2.4 U	2.4 U	3.5 U	100	3.6 U	6.9 U	3.5 U	0.18 U	3.5 U	6.9 U	6.9 U	14 U	0.69 U	6.9 U	0.35 U	0.69 U	0.69 U	18 U	1.8 U	0.69 U		
Styrene	0.15 U	0.15 U	0.12 J	4.2 U	4.2 U	8.4 U	8.4 U	4.2 U	0.21 U	2.1 U	4.2 U	8.4 U	8.4 U	0.42 U	4.2 U	0.21 U	0.42 U	0.42 U	4.2 U	0.42 U	0.42 U		
Tetrachloroethene	0.22 J	0.29	0.35	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45	450	1300	640	750		
Tetrahydrofuran	0.1 U	0.1 U	0.1 U	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43	34	54	65	31		
Toluene	1.3	0.51	2.9	36	3.8 U	7.6 U	7.6 U	3.8 U	0.59	3.4	4.7	7.6 U	7.6 U	0.38 U	3.8 U	3.6	0.38 U	0.75	3.8 U	0.41	3.5		
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1	3	4.6	5.5	6.6		
trans-1,3-Dichloropropene	0.064 J	0.16 U	0.16 U	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.44 U		
Trichloroethene	0.19 U	0.19 U	1.1	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460	1200	2000	1700	3200		
Trichlorofluoromethane	1.1	1.5	1.2	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230	210	300	440	410		
Trichlorotrifluoroethane	0.49 J	0.65 J	0.57 J	7.6 U	7.6 U	16 U	16 U	7.6 U	0.74	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.53	0.76 U	0.76 U	7.6 U	0.76 U	0.76 U		
Vinyl acetate	2.5 U	2.5 U	2.5 U	15 U	3.6 U	7.2 U	29 U	15 U	0.71 U	7.1 U	15 U	29 U	29 U	1.5 U	15 U	0.71 U	1.5 U	1.5 U	3.6 U	0.36 U	0.71 U		
Vinyl chloride	0.09 U	0.09 U	0.09 U	110	20	10	5.2 U	2.6 U	3.4	1.3 U	2.6 U	5.2 U	5.2 U	0.26 U	2.6 U	0.13 U	0.26 U	0.26 U	2.6 U	0.26 U	0.40		

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

Parameter (ug/m³)	Extraction Well - Large Retail Space																						
	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D 091511 9/15/2011	EW-Combined-120811 12/8/2011	EW-Combined-030812 3/8/2012	EW-Combined-061412 6/14/2012	EW-Combined-091312 9/13/2012	EW-Combined-d010313 1/13/2013	EW-Combined-031513 3/15/2013	EW-Combined-060713 6/7/2013	EW-Combined-090613 9/6/2013	EW-Combined-121313 12/13/13	EW-Combined-030714 03/07/14	EW-Combined-061314 6/13/2014	EW-Combined-091214 9/12/2014	EW-Combined-121914 12/19/2014	EW-Combined-032715 3/27/2015	EW-Combined-061115 6/11/2015	EW-Combined-091615 9/16/2015	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009		
1,1,1-Trichloroethane	280	2500	2400	340	1100	1800	2800	1800	610	850	1900	1500	780	770	1300	420	500	1200	3400 E	59000	66000		
1,1,1,2-Tetrachloroethane			2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	2.5 U						
1,1,2,2-Tetrachloroethane	0.69 U	0.69 U	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	1.4 U	6.8 U	6.8 U		
1,1,2-Trichloroethane	0.55 U	0.55 U	1.1 U	0.55 U	2.7 U	0.55 U	0.26	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	0.55 U	0.28 J	1.1 U	6.4	10		
1,1-Dichloroethane	36	170	200	70	78	130	200	99	59	68	150	62	53	68	130	55	49	100	190	4100	4400		
1,1-Dichloroethene	7.3	58	44	21	34	42	15	28	24	38	56	24	27	40	52	14	22	46	160	570	1200		
1,2,4-Trichlorobenzene	0.74 U	0.74 U	3.0 U	1.5 U	3800	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	7.4 U	7.4 U		
1,2,4-Trimethylbenzene	0.49 U	0.49 U	0.98 U	1.2	4.9 U	0.57	0.24	0.49 U	14	0.49 U	0.21	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.98 U	5.0 U	5.0 U		
1,2-Dibromoethane (EDB)	0.77 U	0.77 U	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	1.5 U	7.6 U	7.6 U		
1,2-Dichlorobenzene	0.60 U	0.60 U	1.2 U	0.60 U	7.3	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	1.2 U	6.0 U	6.0 U		
1,2-Dichloroethane	0.40 U	0.40 U	0.81 U	0.40 U	2.0 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.81 U	4.0 U	4.0 U		
1,2-Dichloropropane	0.46 U	0.46 U	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	4.6 U	4.6 U		
1,2-Dichlorotetrafluoroethane																				7.0 U	7.0 U		
1,3,5-Trimethylbenzene	0.49 U	0.49 U	0.98 U	0.29	4.9 U	0.15	0.49 U	0.49 U	3.9	0.49 U	0.17 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.98 U	5.0 U	5.0 U		
1,3-Butadiene	0.22 U	0.22 U	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	2.2 U	2.2 U	
1,3-Dichlorobenzene	0.60 U	0.60 U	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	1.1	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	6.0 U	6.0 U		
1,4-Dichlorobenzene	0.60 U	0.60 U	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.64	0.60 U	0.21 U	0.60 U	0.60 U	0.60 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	6.0 U	6.0 U		
1,4-Dioxane									0.72 U														
2-Butanone	4.5	4.5 B	24 U	1.3	120 U	110	16	2.9	22	5.3	7.6	0.97	2.5	5.1	3.3 J	1.4 J	1.2 J	1.2 J	1.3 J	3.5	8.9		
2-Hexanone	0.41 U	0.41 U	0.82 U	0.16	4.1 U	0.31	0.41 U	0.41 U	1.4	0.41 U	0.26	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	4.0 U	4.0 U		
4-Ethyltoluene	0.49 U	0.49 U	0.98 U	0.27	4.9 U	0.49 U	0.49 U	0.49 U	3.4	0.49 U	0.17 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.98 U	5.0 U	5.0 U		
4-Methyl-2-pentanone	0.41 U	0.41 U	0.82 U	0.16	4.1 U	0.38	0.41 U	0.41 U	8.7	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.13 J	0.41 U	0.82 U	4.0 U	4.0 U
Acetone	11 B	6.3 B	19 U	6.6	22	19	14	10	75	12	11	6.6	15	9.8	19 U	6.2 J	6.1 J	9.5 U	12 J	35	16		
Benzene	0.5	0.72	0.77	0.56	3.2 U	1.0	0.96	0.45	5.0	0.32 U	0.82	0.32 U	0.63	0.66	0.35 J	0.33	0.39	0.36	0.55 J	5.3	11.0		
Benzyl chloride	0.52 U	0.52 U	1.0 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	5.2 U	5.2 U		
Bromodichloromethane	0.67 U	0.67 U	1.3 U	0.67 U	3.4 U	10	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	1.3 U	6.6 U	6.6 U		
Bromform	1.0 U	1.0 U	2.1 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U	1.0 U	1.0 U	1.0 U	1 U	2.1 U	1 U	1 U	1 U	2.1 U	11 U	11 U		
Bromomethane	0.39 U	0.39 U	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.39 U	0.78 U	3.8 U	3.8 U		
Carbon disulfide	0.31 U	0.73	6.2 U	3.1 U	31 U	1.7	3.6	0.43	0.82	3.1 U	0.73	3.1 U	3.1 U	0.40	0.52 J	0.33 J	0.24 J	0.37 J	1 J	3.2 U	3.2 U		
Carbon tetrachloride	0.63 U	0.63	1.3 U	0.48	3.1 U	0.50	0.74	0.63 U	0.63 U	0.68	0.63 U	0.63 U	0.63 U	0.63 U	0.58 J	0.4 J	0.28 J	0.49 J	0.75 J	6.2 U	6.2 U		
Chlorobenzene	0.46 U	0.46 U	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	4.6 U	4.6 U		
Chloroethane	1	3.6	6.7	2.1	2.6 U	3.0	5.3	1.5	1.1	1.4	3.3	1.2	1.0	1.5	1.8	0.8	0.4	1	2.7	170	250		
Chloroform	1.6	6.9	7.6	2.7	3.2	6.3	8.5	4.7	3.5	2.3	7.0	1.5	3.1	3.4	4.9	3.4	2.5	6.4	4.1	20	34		
Chloromethane	0.21 U	0.21 U	0.41 U	0.21 U	2.1 U	20	0.21 U	0.21 U	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.83 U	2.0 U	2.0 U		
cis-1,2-Dichloroethene	28	120	160	38	47	75	150	66	30	24	93	12	25	30	57	25	21	52	41	2000.0	2200.0		
cis-1,3-Dichloropropene	0.45 U	0.45 U	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	4.4 U	4.4 U		
Cyclohexane	0.34 U	0.34 U	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	21	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	3.4 U	5.7		
Dibromochloromethane	0.85 U	0.85 U	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.30 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	8.6 U	8.6 U		
Dichlorodifluoromethane	3	4.1	2.9	2.9	4.9 U	2.9	2.9	2.4	2.5	2.1	11	3.2	2.4	2.1	2.5	2.7	1.8	2.9	2.6	5.0 U	170		

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

Parameter (ug/m ³)	Extraction Well - Large Retail Space																						
	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D 091511 9/15/2011	EW-Combined-120811 12/8/2011	EW-Combined-030812 3/8/2012	EW-Combined-061412 6/14/2012	EW-Combined-091312 9/13/2012	EW-Combined-d010313 1/13/2013	EW-Combined-031513 3/15/2013	EW-Combined-060713 6/7/2013	EW-Combined-090613 9/6/2013	EW-Combined-121313 12/13/13	EW-Combined-030714 03/07/14	EW-Combined-061314 6/13/2014	EW-Combined-091214 9/12/2014	EW-Combined-121914 12/19/2014	EW-Combined-032715 3/27/2015	EW-Combined-061115 6/11/2015	EW-Combined-091615 9/16/2015	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009		
Ethanol	8.2	17	15 U	9.2	75 U	7.2	12	19	320	34	30	11	38	41	15	12	5.2 J	5.1 J	20	33	40		
Ethyl acetate	0.36 U	0.36 U	0.72 U	1.2	3.6 U	1.3	0.36 U	0.36 U	110	0.36 U	0.13 U	1.8	1.8	0.36 U	0.72 U	0.36 U	11	1.3	0.72 U	3.6 U	3.6 U		
Ethylbenzene	0.43 U	0.43 U	0.87 U	0.58	4.3 U	0.28	0.21	0.43 U	13	0.43 U	0.20	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.43 U	0.43 U	0.43 U	0.87 U	4.4 U	4.4 U	
Hexachlorobutadiene	1.1 U	1.1 U	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	22 U	22 U	
Hexane	0.7 U	0.8	28 U	0.66	140 U	0.91	1.5	0.53	6.8	14 U	2.2	1.2	0.80	14 U	28 U	14 U	7.9 J	14 U	1.6 J	3.6 U	3.6 U		
Isopropyl alcohol	0.84	0.25 U	20 U	9.8 U	98 U	3.1	2.9	9.8 U	27	9.8 U	3.4 U	3.0	1.6	1.6	2.7 J	9.8 U	9.8 U	3.8 J	3.7 J	28	2.4 U		
m,p-Xylene	0.87 U	0.87 J	1.7 U	1.6	8.7 U	0.51	0.59	0.87 U	34	0.87 U	0.40	0.87 U	0.57	0.95	1.7 U	0.25 J	0.87 U	0.87 U	1.7 U	8.6 U	8.6 U		
Methyl methacrylate		0.41 U	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	3.5	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U			
Methylene chloride	0.78	2.9	6.9 U	2.2	8.1	2.3	2.2	2.4	1.3	4.6	2.1	1.7	1.1	1.4 J	3.5 U	3.5 U	5.3 J	7.0 U	19				
Methyl-t-butyl ether	0.36 U	0.36 U	0.72 U	0.24	3.6 U	1.1	0.17	0.36 U	0.36 U	0.36 U	0.17	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.2 J	0.2 J	0.72 U	3.6 U	3.6 U		
n-Heptane	0.41 U	0.41 U	0.82 U	0.23	4.1 U	0.41 U	0.41 U	0.41 U	4.4	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	4.0 U	4.0 U	
o-Xylene	0.43 U	0.43 U	0.87 U	0.69	4.3 U	0.28	0.25	0.43 U	16	0.43 U	0.20	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.43 U	0.43 U	0.43 U	0.87 U	4.4 U	4.4 U	
Propylene (Propene)	1.8	1.7 U	14 U	6.9 U	13	3.8	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	6.9 U	6.9 U	14 U	6.9 U	1.6 J	6.9 U	14 U	1.8 U	1.8 U		
Styrene	0.43 U	0.43 U	0.85 U	0.21	4.3 U	0.54	0.39	0.43 U	14	0.43 U	0.15 U	0.43 U	0.43 U	0.43 U	0.85 U	0.43 U	0.43 U	0.43 U	0.43 U	0.85 U	4.2 U	4.2 U	
Tetrachloroethene	160	920	440	8.1	170	530	910	850	60	23	250	7.0	260	82	230	100	400	1400	63	600. [a]	1,200. [a]		
Tetrahydrofuran	11	11	21	0.27	8.3	3800	110	1.8	4.1	7.2	10	0.79	1.7	4.7	2.9	0.85	1.2	0.65	0.59 U	6.3	21		
Toluene	0.38	1.4	0.75 U	2.5	3.8 U	1.4	0.87	0.38 U	74	0.57	0.67	0.38 U	1.1	1.8	0.75 U	0.43	0.2 J	0.15 J	1.2	3.8 U	3.8 U		
trans-1,2-Dichloroethene	0.6	1.9	3.5	1.1	2.0 U	1.7	1.9	1	0.86	0.62	2.6	0.40 U	1	1	1	1	1	1	1	1	9.2 [a]	23. [a]	
trans-1,3-Dichloropropene	0.45 U	0.45 U	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U	4.4 U	
Trichloroethene	240	1800	1900	97	730	1500	2600	2000	380	280	1200	160	560	560	800	480	490	1300	1200 E	31000	42000		
Trichlorofluoromethane	71	200	610	200	150	260	100	230	130	140	410	200	98	160	360	200	80	170	340	520	540		
Trichlorotrifluoroethane	0.77 U	0.77 U	1.5 U	0.89	3.8 U	0.77 U	0.37	0.77 U	0.92	1.4	1.3	0.77 U	0.77 U	0.77 U	0.86 J	0.89	0.54 J	0.89 J	0.89 J	7.6 U	7.6 U		
Vinyl acetate	0.7 U	0.35 U	0.70 U	0.35 U	7.0 U	1.4	0.70 U	0.70 U	0.70 U	7.0 U	2.5 U	7.0 U	7.0 U	7.0 U	14 U	7 U	7 U	14 U	3.6 U	3.6 U			
Vinyl chloride	0.26 U	0.26 U	0.51 U	0.26 U	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.090 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	0.51	2.7	4.8		

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

Parameter (ug/m³)	Extraction Well - Large Retail Space						Post Treatment - Large Retail Space							CT IACTIND 2003 (ug/m³)	Indoor Air - Large Retail Space							
	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	Post- carbon- 020309 2/3/2009	POST CARBON- 021109 2/11/2009	POST CARBON- 021809 2/18/2009	POST CARBON- 022609 2/26/2009	POST CARBON- 041409 4/14/2009	POST CARBON- 100809 10/8/2009	Post- Carbon- 010810 1/8/2010		IA-1- 011609 1/16/2009	IA-1- 020309 2/3/2009	IA-1- 021109 2/11/2009	IA-1- 021809 2/18/2009	IA-1- 022609 2/26/2009	IA-1- 030609 3/6/2009	IA-1- 033109 3/31/2009	IA-1- 041409 4/14/2009
1,1,1-Trichloroethane	26000	30000	54000	72000	11000	14000	1.0	15	45	1.9	13000	0.56	450	500	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4
1,1,1,2-Tetrachloroethane																						
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 U	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	
1,1,2-Trichloroethane	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 U	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	
1,1-Dichloroethane	5700	7000	1600	2300	690	1400	0.20 U	1.0 U	5.4	11000	490	370	610	430	0.71	0.20 U	0.20 U	0.20 U	0.27	0.32	0.20 U	0.14 U
1,1-Dichloroethene	330	640	340	560	97	210	0.20 U	1.0 U	0.40 U	6400	96	78	87	20	0.38	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 U	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U	0.25 U	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	52	0.25 U	0.36	0.70	0.77	0.25 U	0.25 U	0.18 U	
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	
1,2-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	6.0 U	0.30 U	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	
1,2-Dichloroethane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U	0.20 U	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	0.31	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
1,2-Dichloropropane	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	
1,2-Dichlortetrafluoroethane	7.0 U	7.0 U	7.0 U	7.0 U	1.8 U	7.0 U	0.35 U	1.8 U	0.70 U	0.70 U	70 U	0.35 U	0.35 U	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	
1,3,5-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U	2.1	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	
1,3-Butadiene	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	2.2 U	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U	NA	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.08 U	
1,3-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	6.0 U	2.9	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	
1,4-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	6.0 U	0.30 U	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	24	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	
1,4-Dioxane														NA								
2-Butanone	12	11	36	10	36	6.4	10	6.3	9.4	5.5	330	1.9	2.0	500	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2
2-Hexanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U	0.20 U	1.0 U	0.40 U	0.40 U	13000	0.27	0.34	NA	0.20 U	0.20 U	0.60	0.42	0.20 U	0.23	0.20 U	0.14 U
4-Ethyltoluene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U	2.1	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	
4-Methyl-2-pentanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U	5.0	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	200	0.20 U	0.20 U	0.43	0.30	0.20 U	0.20 U	0.14 U	
Acetone	9.6 U	9.6 U	53	24	26	12	1200	11	19	12	430	3.6	5.7	500	18	7.7	19	21	10	8.7	14	12
Benzene	5.6	7.8	3.2 U	6.8	1.4	3.2 U	1.3	0.80 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U	3.3	1.0	0.68	1.9	3.0	0.69	0.87	0.71	0.56
Benzyl chloride	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	5.2 U	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	
Bromodichloromethane	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	6.6 U	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	
Bromoform	11 U	11 U	11 U	11 U	2.6 U	11 U	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	
Bromomethane	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	3.8 U	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	
Carbon disulfide	27	25	3.2 U	3.2 U	1.8	3.2 U	0.16 U	0.80 U	4.1	27	250	0.16 U	0.20	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	
Carbon tetrachloride	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	6.2 U	0.38	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U	0.54	0.35	0.41	0.52	0.55 [a]	0.46	0.59 [a]	0.53	0.31
Chlorobenzene	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	
Chloroethane	700	590	41	44	17	33	0.13 U	5100	1800	480	64	19	10	500	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.13 U	0.10 U	
Chloroform	9.6	15	13	23	3.6	7.5	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	6.8	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	2.0 U	0.59	0.50 U	0.20 U	0.20 U	23	0.10 U	0.10 U	80	1.1	1.0	1.4	1.5	1.0	1.0	1.2	1.1
cis-1,2-Dichloroethene	6100.0	7600.0	610.0	1200.0	560.0	1300.0	0.27	1.0 U	3.9	5200	820	230	570	100	2.0	0.20 U	1.0	1.1	0.73	1.3	0.50	0.60
cis-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	
Cyclohexane	8.4	8.8	3.4 U	3.4 U	0.85 U	3.4 U	0.93	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.12 U	
Dibromochloromethane	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	
Dichlorodifluoromethane	5.0 U	5.0 U	5.4	7	2.6	5.0 U	0.76	4.1	3.0	2.4	50 U	1.7	1.9	500	1.8	2.1	2.6	2.8	2.6	2.6	3.1	2.0

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						Post Treatment - Large Retail Space							CT IACTIND 2003 (ug/m ³)	Indoor Air - Large Retail Space							
	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	Post- carbon- 020309 2/3/2009	POST CARBON- 021109 2/11/2009	POST CARBON- 021809 2/18/2009	POST CARBON- 022609 2/26/2009	POST CARBON- 041409 4/14/2009	POST CARBON- 100809 10/8/2009	Post- Carbon- 010810 1/8/2010		IA-1 011609 1/16/2009	IA-1- 020309 2/3/2009	IA-1- 021109 2/11/2009	IA-1- 021809 2/18/2009	IA-1- 022609 2/26/2009	IA-1- 030609 3/6/2009	IA-1- 033109 3/31/2009	IA-1- 041409 4/14/2009
Ethanol	12	8.3	39	1.8 U	8.6	1.8 U	740	36	25	9.8	110	0.38 U	2.8	NA	5.7	8.3	14	20	9.8	7.5	18	5.0
Ethyl acetate	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U	0.37 U	0.90 U	0.36 U	0.73 U	73 U	0.18 U	0.18 U	NA	0.37 U	0.37 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	
Ethylbenzene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	290	0.26	0.28	0.66	0.85	0.23	0.22 U	0.22 U	0.16 U
Hexachlorobutadiene	22 U	22 U	22 U	22 U	5.4 U	22 U	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U	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
Hexane	3.6 U	6.6	3.6 U	3.6 U	3.2	3.6 U	3.0	0.90 U	46	0.36 U	36 U	0.18 U	0.23	NA	0.92	0.74	1.2	1.6	1.0	0.51	0.53	0.65
Isopropyl alcohol	2.4 U	2.4 U	26	5.9	7.5	7.1	450	2.9	3.1	47	290	0.25 U	1.4	NA	3.4	3.1	5.3	5.8	3.8	2.0	9.1	0.18 U
m,p-Xylene	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	500	0.76	0.87	2.1	2.8	0.80	0.43 U	0.63	0.31 U
Methyl methacrylate														NA								
Methylene chloride	7.0 U	17	7.0 U	13	19	12	20	76	17	3.0	810	0.70 U	0.72	17	2.3	33	2.3	1.8	4.4	1.1	6.7	3.5
Methyl-t-butyl ether	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U	3.6 U	0.18 U	0.90 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U
n-Heptane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U	1.8	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	NA	0.23	0.20 U	0.59	0.75	0.20 U	0.20 U	0.20 U	0.14 U
o-Xylene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	500	0.26	0.33	0.76	0.99	0.30	0.22 U	0.22 U	0.16 U
Propylene (Propene)	1.8 U	1.8 U	1.8 U	1.8 U	0.45 U	1.8 U	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U	NA	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.090 U	0.13 U
Styrene	4.2 U	4.2 U	4.2 U	4.2 U	1.1 U	4.2 U	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U	290	0.21 U	0.21 U	0.21	0.28	0.21 U	0.21 U	0.21 U	0.15 U
Tetrachloroethene	2,300. [a]	2,500. [a]	73. [a]	310. [a]	31. [a]	170. [a]	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9	5	6.6 [a]	0.57	4.2	3.2	2.6	4.9	1.5	1.9
Tetrahydrofuran	19	3.0 U	32	14	37	5.1	6.8	22	40	18	210	4.1	6.5	NA	12	1.2	1.3	0.48	0.32	0.15 U	0.15 U	0.23
Toluene	3.8 U	3.8 U	3.8 U	3.8 U	1.4	3.8 U	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	500	1.7	1.4	4	5.7	2.3	0.93	1.7	0.72
trans-1,2-Dichloroethene	69. [a]	180. [a]	4.0 U	8.8 [a]	2.5 [a]	8. [a]	0.20 U	1.0 U	0.40 U	28	40 U	7.7	15	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U
trans-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U
Trichloroethene	25000	25000	8600	19000	2700	5500	2.0	11	16	2.7	54 U	1.0	1.0	1	4.2	0.46	1.6	1.4	0.65	1.5	0.57	0.74
Trichlorofluoromethane	1300	1800	430	840	240	370	0.71	1.4 U	23	6700	84	180	210	500	2.1	1.4	1.7	3.1	1.6	1.7	1.2	1.2
Trichlorotrifluoroethane	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51	NA	0.65	0.64	0.47	0.46	0.67	0.48	0.59	0.54
Vinyl acetate	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U	0.71 U	0.90 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U
Vinyl chloride	9.4	8.1	2.6 U	2.6 U	0.65	2.6 U	0.13 U	30	13	4.5	26 U	0.13 U	0.13 U	1.9	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.10 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-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	IA-1-010810 1/8/2010	IA-1-012810 1/28/2010	IA-1-020510 2/5/2010	IA-1-021210 2/12/2010	IA-1-021910 2/19/2010	IA-1-032610 3/26/2010	IA-1-043010 4/30/2010	IA-1-052810 5/28/2010	IA-1-070110 7/1/2010	IA-1-091610 9/16/2010	IA-1-120710 12/7/2010	IA-1-021711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-1-120811 12/8/2011	IA-1-030812 3/8/2012
1,1,1-Trichloroethane	2.0	0.27 U	0.27 U	0.27 U	0.27 U	0.24	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	0.12	0.082 U	
1,1,1,2-Tetrachloroethane																				0.62 U	0.37 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.52 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	0.74 U	0.45 U	
1,2,4-Trimethylbenzene	0.48	0.29	0.35	0.28	0.51	0.52	0.37	0.25 U	0.26	0.25 U	0.25 U	0.25 U	0.40	0.43	0.56	0.25 U	0.55	0.25 U	0.25 U	0.10	0.15 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	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 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	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	0.18	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.044	0.15 U	
1,3-Butadiene	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17	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	0.066 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	
1,4-Dioxane																						
2-Butanone	4.4	2.0	2.6	2.7	1.3	2.7	1.6	0.30 U	2.4	1.1	1.2	1.3	0.78	2.6	3.3	0.85	0.68	1.7 B	2.9 U	5.9 U	1.8	1.2
2-Hexanone	0.48	0.43	0.52	0.73	0.31	0.71	0.36	0.20 U	0.47	0.20 U	0.27	0.27	0.20 U	0.67	0.75	0.20 U	0.20 U	0.20 U	4.1 U	0.62	0.22	0.26
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	
4-Methyl-2-pentanone	0.52	0.21	0.35	0.32	0.20 U	0.34	0.20 U	0.20 U	0.20 U	0.22	0.20 U	0.20 U	0.20 U	0.28	0.35	0.35	0.20 U	0.20 U	0.20 U	0.23	0.39	0.13
Acetone	310	11	18	13	10	13	12	2.0	19	7.3	8.5	7.0	6.5	18	18	11	12 B	15 B	11 B	8.0	6.0	
Benzene	0.78	0.49	0.47	0.39	0.48	1.1	1.2	0.16 U	0.98	0.64	0.53	0.59	0.64	0.50	0.46	0.8	0.49	1.5	0.25	0.32	0.47	0.34
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.10 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.31 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 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	0.33	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	0.93 U	
Carbon tetrachloride	0.43	0.48	0.38	0.42	0.43	0.48	0.43	0.31 U	0.40	0.31 U	0.45	0.44	0.48	0.55 [a]	0.52	0.50	0.46	0.47	0.53	0.57 [a]	0.49	0.46
Chlorobenzene	0.23	0.23	0.23	0.23	0.23	0.17 U	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.14 U	0.14 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 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	0.17 U	0.26	0.24 U	0.47	0.43	0.24 U	0.24 U	0.25	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.073 U	
Chloromethane	1.3	1.1	1.1	0.98	0.95	1.3	1.1	1.4	1.3	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1.0	0.92	1.3	0.93	1.3
cis-1,2-Dichloroethene	1.3	0.20 U	0.20 U	0.83	0.44	0.57	0.20 U	0.20 U	0.20 U	0.56	0.20 U	1.3	0.20 U	0.50	0.20 U	1.7	0.20 U	0.20 U	0.20 U	0.15	0.059 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	
Cyclohexane	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.28	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	0.10 U	0.10 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	
Dichlorodifluoromethane	8.3	2.4	2.0	2.3	2.1	1.6	3.1	2.4	2.4	2.6	3.0	1.6	2.2	2.3	2.7	1.7	2.0	3.1	1.5	2.0	2.6	2.1

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

Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
	IA-042409 4/24/2009	IA-091709 9/17/2009	IA-092409 9/24/2009	IA-100109 10/1/2009	IA-100809 10/8/2009	IA-120209 12/2/2009	IA-010810 1/8/2010	IA-012810 1/28/2010	IA-020510 2/5/2010	IA-021210 2/12/2010	IA-021910 2/19/2010	IA-032610 3/26/2010	IA-043010 4/30/2010	IA-052810 5/28/2010	IA-070110 7/1/2010	IA-091610 9/16/2010	IA-120710 12/7/2010	IA-021711 2/17/2011	IA-060211 6/2/2011	IA-091511 9/15/2011	IA-120811 12/8/2011	IA-030812 3/8/2012	
Ethanol	39	6.2	7.0	6.5	8.8	10	8.4	7.0	29	19	43	4.6	4.4	6.0	6.5	9.0	2.7	9.0	2.8	6.4	2.2	3.2	
Ethyl acetate	0.37 U	0.32	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.92		
Ethylbenzene	0.94	0.23	0.23	0.22 U	0.28	0.46	0.40	0.22 U	0.32	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	0.10		
Hexachlorobutadiene	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U		
Hexane	1.7	0.99	1.3	0.41	0.77	0.78	0.74	0.18 U	0.82	1.3	0.45	0.20	1.1	0.80	0.46	0.61	0.35 U	1.9	0.43	7.0 U	0.39	0.72	
Isopropyl alcohol	240	5.2	5.2	0.25 U	2.7	1.8	2.4	0.25 U	9.4	0.25 U	1.6	0.65	3.4	0.12 U	0.74	1.4	0.25 U	1.7	1.2 U	4.9 U	2.9 U	0.64	
m,p-Xylene	2.5	0.79	0.91	0.73	1.0	1.4	1.1	0.43 U	1.0	0.43 U	0.43 U	0.50	0.77	1.1	1.2	1.7	0.43 U	1.6	0.42 J	0.51	0.41	0.22	
Methyl methacrylate																			0.20 U	0.20 U	0.20 U	0.12 U	0.12 U
Methylene chloride	4.8	1.6	3.6	0.70 U	0.70 U	2.9	0.70 U	1.4	1.5	1.9	0.70 U	0.70 U	0.70 U	0.35 U	1.2	0.56	0.56	4.8	1.3	1.7 U	1.6	3.3	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U		
n-Heptane	0.67	0.20 U	0.20 U	0.20 U	0.26	0.42	0.35	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.36	0.20 U	0.50	0.20 U	0.20 U	0.079	
o-Xylene	0.70	0.31	0.40	0.28	0.40	0.52	0.44	0.22 U	0.38	0.22 U	0.22 U	0.28	0.46	0.51	0.69	0.22 U	0.56	0.22 U	0.22 U	0.15	0.096		
Propylene (Propene)	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.86 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U		
Styrene	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.19	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.31	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.85	0.13 U	
Tetrachloroethene	6.1 [a]	0.34 U	0.34 U	2.0	1.1	3.2	0.34 U	0.34 U	0.34 U	1.2	0.34 U	4.5	0.55	1.1	0.34 U	3.3	5.6 [a]	0.34 U	0.47	0.84	0.21		
Tetrahydrofuran	0.40	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.22	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	0.14	0.088 U		
Toluene	5.7	1.3	1.1	0.78	1.2	2.8	2.1	0.19 U	0.82	0.69	0.58	0.8	1.3	0.91	0.99	2.5	0.44	3	0.58	0.93	1.6	0.3	
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U		
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U		
Trichloroethene	1.6	0.27 U	0.27 U	1.1	0.56	0.69	0.27 U	0.27 U	0.27 U	0.31	0.39	0.27 U	1.5	0.27 U	0.40	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	
Trichlorofluoromethane	1.5	1.4	1.3	1.2	1.2	1.3	2.5	0.81	1.3	1.5	1.5	1.4	1.2	1.3	1.4	2.7	1.2	1.7	1.1	1.8	1.0	0.89	
Trichlorotrifluoroethane	1.7	0.48	0.44	0.45	0.51	0.52	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	0.40	
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.25 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	0.21 U	
Vinyl chloride	0.16	0.13 U	0.13 U	0.17	0.13 U	0.10 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	0.038 U		

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

Parameter (ug/m³)	Indoor Air - Large Retail Space																						
	IA-1-061412 6/14/2012	IA-1-091312 9/13/2012	IA-1-010313 1/3/2013	IA-1-031513 3/15/2013	IA-1-060713 6/7/2013	IA-1-090613 9/6/2013	IA-1-121313 12/13/13	IA-1-030714 03/07/14	IA-1-061314 6/13/2014	IA-1-091214 9/12/2014	IA-1-121914 12/19/2014	IA-1-032715 3/27/2015	IA-1-061115 6/11/2015	IA-1-091615 9/16/2015	IA-2-011609 1/16/2009	IA-2-020309 2/3/2009	IA-2-021109 2/11/2009	IA-2-021809 2/18/2009	IA-2-022609 2/26/2009	IA-2-041409 4/14/2009	IA-2-042409 4/24/2009	IA-2-091709 9/17/2009	
1,1,1-Trichloroethane	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11	0.19 U	0.2	0.16 J	0.05 J	0.19 U	0.28	9.9	0.63	1.1	1.1	0.44	1.4	2.1	0.27 U	
1,1,1,2-Tetrachloroethane	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.35 J	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U		
1,1,2,2-Tetrachloroethane	0.21 U	0.24 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	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U		
1,1,2-Trichloroethane	0.16 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	0.065 J	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U		
1,1-Dichloroethane	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 J	0.72	0.20 U						
1,1-Dichloroethene	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 J	0.41	0.20 U						
1,2,4-Trichlorobenzene	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.22 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U		
1,2,4-Trimethylbenzene	0.16	0.55	0.17 U	0.17 U	0.21	0.32	0.17 U	0.52	0.25	0.14 J	0.17 U	0.12 J	0.14 J	0.14 J	0.25 U	0.37	0.70	0.65	0.30	0.18 U	0.25 U	0.29	
1,2-Dibromoethane (EDB)	0.23 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	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U		
1,2-Dichlorobenzene	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U		
1,2-Dichloropropane	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.069 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U		
1,2-Dichlorotetrafluoroethane														0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.059	0.32	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.16	0.17 U	0.068 J	0.17 U	0.041 J	0.069 J	0.059 J	0.25 U	0.25 U	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	
1,3-Butadiene	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.55	0.078 U	0.066 U	0.078 U	0.048 J	0.078 U	0.13	0.11 U	0.11 U	0.30	0.66	0.11 U	0.08 U	0.11 U	0.23 U	
1,3-Dichlorobenzene	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	
1,4-Dioxane														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	
2-Butanone	1.4	3.0	0.87	0.64	2.9	2.0	0.92	1.6	3.1	2.8 J	0.84 J	1.5 J	1.1 J	1.2 J	21	4.1	4.6	3.0	2.9	0.95	1.6	1.1	
2-Hexanone	0.12 U	0.28	0.14 U	0.14 U	0.38	0.27	0.14 U	0.30	0.45	0.25	0.14 U	0.30	0.14 U	0.14 U	0.20 U	0.20 U	0.35	0.26	0.20 U	0.14 U	0.20 U	0.25	
4-Ethyltoluene	0.071	0.19	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17	0.17 U	0.15 U	0.17 U	0.045 J	0.17 U	0.055 J	0.25 U	0.25 U	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.093	0.26	0.14 U	0.14 U	0.24	0.52	0.14 U	0.23	0.49	0.33	0.14 U	0.14 J	0.08 J	0.14 U	0.20 U	0.20 U	0.35	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	
Acetone	12	16	7.0	5.0	21	35	19	13	23	13	9.3	12	7.7	17	17	9.6	14	18	9.7	13	39	6.2	
Benzene	0.19	0.67	0.51	0.72	0.28	0.75	0.54	2.3	0.46	0.39	0.38	0.53	0.23	0.46	1.0	0.67	1.8	3.0	0.77	0.58	0.44	0.41	
Benzyl chloride	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.078 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	
Bromodichloromethane	0.20 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	0.33 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
Bromoform	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.095 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.23	0.20	1.1 U	0.21	0.11 J	1.1 U	1.1 U	0.22 J	0.97 J	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	0.46	0.39	0.54	0.44	0.53	0.53	0.54	0.41	0.42	0.4	0.29	0.32	0.34	0.49	0.33	0.41	0.55 [a]	0.57 [a]	0.48	0.41	0.41	0.44	
Chlorobenzene	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.069 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	
Chloroethane	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.079 U	0.093 U	0.093 U	0.093 U	0.096	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U
Chloroform	0.097	0.19	0.17 U	0.17 U	0.17 U	0.20	0.17 U	0.13	0.25	0.27	0.13 J	0.075 J	0.14 J	0.3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.25	0.17 U	0.24 U
Chloromethane	1.6	1.3	0.99	1.1	1.4	1.2	1.0	1.3	1.3	0.8	0.8	1.0	1.2	1.2	1.1	1.0	1.3	1.3	1.0	1.1	1.2	0.91	
cis-1,2-Dichloroethene	0.12 U	0.045	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.059 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15	2.1	0.24	1.1	1.1	0.95	0.59	1.6	0.20 U	
cis-1,3-Dichloropropene	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.068 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	
Cyclohexane	0.10 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.32	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.44	0.61	0.17 U	0.12 U	0.22	0.17 U	
Dibromochloromethane	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.13 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	
Dichlorodifluoromethane	2.7	2.7	2.5	1.7	3.2	1.9	2.4	1.7	2.1	2.2	1.7	1.2	2.3	1.7	1.8	2.2	2.6	2.9	2.7	2.1	2.9	2.0	

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-1-061412 6/14/2012	IA-1-091312 9/13/2012	IA-1-010313 1/3/2013	IA-1-031513 3/15/2013	IA-1-060713 6/7/2013	IA-1-090613 9/6/2013	IA-1-121313 12/13/13	IA-1-030714 03/07/14	IA-1-061314 6/13/2014	IA-1-091214 9/12/2014	IA-1-121914 12/19/2014	IA-1-032715 3/27/2015	IA-1-061115 6/11/2015	IA-1-091615 9/16/2015	IA-2-011609 1/16/2009	IA-2-020309 2/3/2009	IA-2-021109 2/11/2009	IA-2-021809 2/18/2009	IA-2-022609 2/26/2009	IA-2-041409 4/14/2009	IA-2-042409 4/24/2009	IA-2-091709 9/17/2009	
Ethanol	4.4	8.5	3.1	2.0	26	23	12	22	80	34	29	9.1	11	21	5.5	8.8	12	17	7.9	4.9	7.5	4.8	
Ethyl acetate	0.26	0.57	0.40	0.21	0.33	0.13 U	25	0.34	0.13 U	0.46	0.2	0.57	0.13 U	0.65	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	
Ethylbenzene	0.11	0.47	0.18	0.15 U	0.19	0.35	0.15 U	0.53	0.23	0.17	0.064 J	0.13 J	0.1 J	0.18	0.26	0.28	0.65	0.79	0.30	0.18	0.22 U	0.22 U	
Hexachlorobutadiene	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U			
Hexane	0.55	1.3	0.67	0.64	0.79	19	4.9 U	1.2	0.43	0.55 J	0.32 J	5.5	0.35 J	0.68 J	0.88	0.57	1.3	1.6	0.69	0.72	0.74	0.41	
Isopropyl alcohol	2.9 U	1.9	3.4 U	0.36	3.4 U	3.4 U	2.1	1.9	5.5	4	1.5 J	2 J	2 J	2.3 J	3.7	3.1	4.5	4.5	4.7	5.6	28	340	
m,p-Xylene	0.36	1.7	0.79	0.30	0.79	1.0	0.19	1.6	0.86	0.59	0.24 J	0.36	0.34	0.58	0.76	0.88	2.0	2.6	0.93	0.61	0.63	0.71	
Methyl methacrylate	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.14 U	0.14 U										
Methylene chloride	1.2	1.8	1.3	1.9	1.3	34	0.68	0.80	0.67	0.9 J	0.26 J	6.00	0.51 J	0.74 J	2.0	30	4.0	1.6	1.8	4.0	4.2	0.70 U	
Methyl-t-butyl ether	0.11 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	0.11 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U		
n-Heptane	0.093	0.44	0.14 U	0.14 U	0.14 U	0.14 U	0.81	0.14 U	0.67	0.44	0.53	0.14 U	0.15	0.12 J	0.24	0.23	0.20 U	0.58	0.73	0.22	0.15	0.20 U	0.20 U
o-Xylene	0.14	0.66	0.25	0.15 U	0.27	0.42	0.15 U	0.62	0.32	0.22	0.064 J	0.14 J	0.13 J	0.22	0.30	0.34	0.76	0.89	0.34	0.22	0.22	0.27	
Propylene (Propene)	1.1	1.7	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	
Styrene	0.038	0.14	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.16	0.29	0.11 J	0.15 U	0.15 U	0.042 J	0.12 J	0.21 U	0.21 U	0.21 U	0.23	0.21 U	0.15 U	0.21 U	0.21 U	
Tetrachloroethene	0.065	2.7	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21	0.31	0.13	0.3	0.24 U	0.22 J	1.2	7.5 [a]	0.64	4.2	3.2	3.3	2.2	7.6 [a]	0.34 U	
Tetrahydrofuran	0.088 U	0.10 U	0.10 U	0.10 U	0.10 U	0.27	0.10 U	0.10 U	0.16	0.14	0.1 U	0.1 U	0.1 U	0.099 J	12	1.2	1.2	0.49	0.41	0.21	0.28	0.15 U	
Toluene	0.64	2.8	0.47	0.49	1	4.2	0.62	3.2	1.9	2.7	0.58	0.63	0.62	1.3	1.7	1.3	4	5.5	2.3	1	1.2	1.1	
trans-1,2-Dichloroethene	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.059 U	0.14 U	0.14 U	0.14 U	0.053 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	0.14 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	0.068 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U		
Trichloroethene	0.16 U	0.21	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.25	0.19 U	0.081	0.14 J	0.087 J	0.19 U	0.44	4.4	0.56	1.6	1.4	0.91	0.77	1.9	0.27 U	
Trichlorofluoromethane	1.8	1.7	1.6	1.3	1.9	2.4	1.4	1.6	1.4	1.3	1.3	1.1	1.5	1.3	2.0	1.2	1.7	2.8	1.6	1.3	1.3	1.2	
Trichlorotrifluoroethane	0.59	0.57	0.55	0.79	1.1	0.63	0.54	0.45	0.57	0.58	0.62	0.47 J	0.63 J	0.87 J	0.69	0.58	0.49	0.46	0.64	0.56	0.74	0.50	
Vinyl acetate	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U	0.71 U		
Vinyl chloride	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.038 U	0.09 U	0.09 U	0.09 U	0.075 J	0.27	0.13 U	0.18	0.20	0.13 U	0.10 U	0.18	0.13 U	

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Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-2-092409 9/24/2009	IA-2-100109 10/1/2009	IA-2-100809 10/8/2009	IA-2-012810 1/28/2010	IA-2-020510 2/5/2010	IA-2-021210 2/12/2010	IA-2-021910 2/19/2010	IA-2-032610 3/26/2010	IA-2-043010 4/30/2010	IA-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010	IA-2-021711 2/17/2011	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	IA-2-030812 3/8/2012	IA-2-061412 6/14/2012	IA-2-091312 9/13/2012	IA-2-010313 1/3/2013	IA-2-031513 3/15/2013
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	1.0	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.13	0.082 U	0.16 U	0.08	0.19 U	0.19 U	
1,1,1,2-Tetrachloroethane																	0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	
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	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U		
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U		
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.043	0.14 U	0.14 U		
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.045	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 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	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U		
1,2,4-Trimethylbenzene	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.25 U	0.088	0.15 U	0.19	0.48	0.98	0.13		
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	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U		
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.051	0.08	0.16	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 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	0.35 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	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.080	0.26	0.28	0.17 U		
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.08	0.21 U	0.21 U		
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.34	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.093	0.21 U	0.21 U		
1,4-Dioxane															0.18 U							
2-Butanone	2.3	0.81	1.0	2.1	0.70	0.44	0.30 U	0.96	1.3	3.1	3.4	0.96	0.36	1.9 B	2.9 U	5.9 U	0.93	0.84	1.4	2.8	5.1	2.4
2-Hexanone	0.54	0.20 U	0.26	0.51	0.20 U	0.20 U	0.20 U	0.20 U	0.26	0.84	0.68	0.20 U	0.20 U	0.24	4.1 U	0.50	0.12 U	0.16	0.15	0.32	0.17	0.22
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	0.086	0.19	0.24	0.17 U			
4-Methyl-2-pentanone	0.39	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.24	0.10	0.11	0.12	0.19	3.6	0.14 U	
Acetone	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B	8.9 B	18	6.2	5.4	14	17	19	46
Benzene	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5	0.26	0.30	0.39	0.36	0.24	0.62	0.65	0.91
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	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U		
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	
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	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 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	0.16 U	0.93 U	0.93 U	1.1 U	0.93 U	0.47	
Carbon tetrachloride	0.40	0.46	0.42	0.31 U	0.40	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.50	0.48	0.31 U	0.62 [a]	0.52	0.49	0.48	0.45	0.43	0.56 [a]	0.45
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.58	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.47	0.40	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.14	0.25	0.17 U	0.15
Chloromethane	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.80	1.20	1.1	0.96	0.97	0.95	1.2	0.93	1.0	1.4	1.3	1.0	2.7	
cis-1,2-Dichloroethene	0.20 U	0.79	0.48	0.58	0.20 U	0.20 U	0.20 U	0.20 U	1.0	0.20 U	0.61	0.20 U	1.7	0.20 U	0.20 U	0.20 U	0.17	0.059 U	0.12 U	0.064	0.14 U	0.14 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	
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	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.26	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	
Dichlorodifluoromethane	2.1	2.3	2.1	2.2	2.5	2.6	3.0	1.6	2.0	2.4	2.6	1.7	1.9	3.2	1.6	2.0	2.7	2.1	2.7	2.8	2.6	1.7

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Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
	IA-2-092409 9/24/2009	IA-2-100109 10/1/2009	IA-2-100809 10/8/2009	IA-2-012810 1/28/2010	IA-2-020510 2/5/2010	IA-2-021210 2/12/2010	IA-2-021910 2/19/2010	IA-2-032610 3/26/2010	IA-2-043010 4/30/2010	IA-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010	IA-2-021711 2/17/2011	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	IA-2-030812 3/8/2012	IA-2-061412 6/14/2012	IA-2-091312 9/13/2012	IA-2-010313 1/3/2013	IA-2-031513 3/15/2013	
Ethanol	6.7	7.8	6.2	14	35	17	20	4.4	4.9	5	7.6	9.0	2.7	10	2.5	8.5	2.1	2.1	10	9.8	8.1	380	
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	0.22	0.24	3.5	0.71	0.59	2	
Ethylbenzene	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 U	0.13	0.13 U	0.13 U	0.41	4.1	0.25		
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U		
Hexane	0.42	0.71	1.0	0.61	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U	1.6	0.31	7.0 U	0.32	0.34	2.6	2.4	15	2.3	
Isopropyl alcohol	5.7	3.3	0.25 U	0.25 U	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	2.0	1.2 U	4.9 U	2.9 U	0.76	2.9 U	2.8	3.4 U	3.6		
m,p-Xylene	0.93	0.78	1.1	1.3	1.1	0.43 U	0.43 U	0.47	0.75	0.96	1.3	1.5	0.43 U	1.5	0.36 J	0.57	0.39	0.18	0.38	1.3	17	0.92	
Methyl methacrylate													0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	0.70 U	0.70 U	0.70 U	1.4	0.90	1.9	0.70 U	0.70 U	0.70 U	0.35 U	1.3	0.53	0.61	4.2	1.0	7.5	1.1	1.2	6.6	6.4	1.1	3.6	
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	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U		
n-Heptane	0.20 U	0.20 U	0.34	0.83	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.8	0.34	0.20 U	0.48	0.20 U	0.20 U	0.091	0.12 U	0.11	0.40	3.1	0.33	
o-Xylene	0.42	0.30	0.44	0.46	0.40	0.22 U	0.22 U	0.29	0.44	0.57	0.63	0.22 U	0.56	0.22 U	0.23	0.14	0.083	0.17	0.55	5.1	0.33		
Propylene (Propene)	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U		
Styrene	0.21 U	0.21 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.36	0.24	0.21 U	0.21 U	0.21 U	0.059	0.13 U	0.097	0.19	0.45	0.12		
Tetrachloroethene	0.35	1.7	1.0	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6	0.43	1.4	0.34 U	3.2	5.2 [a]	0.34 U	0.45	0.92	0.23	0.090	2.0	0.24	0.18	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	1.6	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.097	0.088 U	0.048	0.10 U	0.24	0.10 U		
Toluene	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.8	1.3	0.91	1.3	2.2	0.41	2.9	0.55	0.99	1.6	0.24	0.9	2.6	5.6	1.5	
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U		
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U		
Trichloroethene	0.27 U	0.99	0.57	0.79	0.27 U	0.27 U	0.27 U	0.27 U	1.2	0.27 U	0.53	0.27 U	1.7	0.27 U	0.27 U	0.27	0.081 U	0.16 U	0.20	0.19 U	0.053		
Trichlorofluoromethane	1.2	1.2	1.2	1.2	1.3	1.4	1.1	1.4	1.3	1.3	1.6	2.5	1.2	1.8	1.2	1.9	1.1	0.94	1.8	2.6	2.7	1.3	
Trichlorotrifluoroethane	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44	0.53	0.94	0.45	0.59	0.71	0.71	0.61	0.71	0.42	0.57	0.64	0.56	0.70	
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	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	0.25 U		
Vinyl chloride	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 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-2-060713 6/7/2013	IA-2-090613 9/6/2013	IA-2-121313 12/13/13	IA-2-030714 03/07/14	IA-2-061314 6/13/2014	IA-2-091214 9/12/2014	IA-2-121914 12/19/2014	IA-2-032715 3/27/2015	IA-2-061115 6/11/2015	IA-2-091615 9/16/2015	IA-3-011609 1/16/2009	IA-3-020309 2/3/2009	IA-3-021109 2/11/2009	IA-3-021809 2/18/2009	IA-3-022609 2/26/2009	IA-3-041409 4/14/2009	IA-3-042409 4/24/2009	IA-3-091709 9/17/2009	IA-3-092409 9/24/2009	IA-3-100109 10/1/2009	IA-3-100809 10/8/2009
1,1,1-Trichloroethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.055 U	0.16 J	0.19 U	0.19 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U											
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.069 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U					
1,1,2-Trichloroethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U					
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.68	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U				
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.15	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U				
1,2,4-Trichlorobenzene	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U					
1,2,4-Trimethylbenzene	0.43	0.20	0.17 U	0.57	0.27	0.2	0.17 U	0.25	0.23	0.17 U	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.40	0.25 U	0.39
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.077 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U					
1,2-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U					
1,2-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04	0.14 U	0.14 U	0.065 J	0.051 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane											0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U				
1,3,5-Trimethylbenzene	0.17 U	0.17 U	0.17 U	0.17	0.17 U	0.059 J	0.17 U	0.079 J	0.069 J	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U				
1,3-Butadiene	0.078 U	0.078 U	0.078 U	0.44	0.11	0.044 U	0.078 U	0.078 U	0.078 U	0.15	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U					
1,4-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.063 J	0.097 J	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U					
1,4-Dioxane																					
2-Butanone	4.2	2.1	1.2	1.8	1.6	4.9	0.92 J	1.7 J	1.8 J	1.7 J	20	4.2	4.6	4.0	1.7	1.6	2.5	2.0	2.6	0.70	1.5
2-Hexanone	0.51	0.41	0.14 U	0.39	0.14 U	0.16	0.14 U	0.2	0.12 J	0.14 U	0.20 U	0.26	0.33	0.3	0.20 U	0.14 U	0.38	0.51	0.58	0.20 U	0.37
4-Ethyltoluene	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.049 J	0.17 U	0.072 J	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U					
4-Methyl-2-pentanone	0.54	0.46	0.18	0.57	1.1	1.3	0.14 U	0.84	0.9	1.2	0.20 U	0.20 U	0.29	0.34	0.20 U	0.14 U	0.22	0.20 U	0.42	0.20 U	0.20 U
Acetone	32	22	32	32	29	37	9.7	40	29	170 E	18	12	17	24	9.7	7.5	50	11	19	6.7	11
Benzene	0.56	0.32	0.66	2.0	0.62	0.30	0.36	0.67	0.39	0.66	1.0	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	0.46
Benzyl chloride	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.052 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U					
Bromodichloromethane	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U					
Bromoform	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U				
Bromomethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U					
Carbon disulfide	0.39	0.33	0.17	0.17	0.56	0.49 J	1.1 U	0.29 J	0.39 J	0.41 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U				
Carbon tetrachloride	0.58	0.45	0.46	0.41	0.42	0.43	0.37	0.36	0.35	0.32	0.34	0.45	0.52	0.6 [a]	0.43	0.22 U	0.42	0.4	0.43	0.4	0.42
Chlorobenzene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U					
Chloroethane	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.061 J	0.093 U	0.059 J	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U					
Chloroform	0.17 U	0.17 U	0.37	0.29	0.53	1	0.13 J	0.41	0.62	0.24	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U					
Chloromethane	1.7	0.98	1.1	1.3	1.2	0.71	0.8	1.4	1.3	1.1	1.1	0.98	1.2	1.4	1.1	1.2	0.91	1.1	0.97	1.0	
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.053 J	1.9	0.20 U	1.1	1.1	0.55	0.61	1.5	0.20 U	0.20 U	0.94	0.49
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U					
Cyclohexane	0.12 U	0.12 U	0.12 U	0.32	0.22	0.069 U	0.12 U	0.12 U	0.12 U	0.14	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Dibromochloromethane	0.30 U	0.30 U	0.30 U	0.3	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U					
Dichlorodifluoromethane	3.3	1.8	2.6	1.5	2	2.1	1.8	1.4	2.4	1.7	1.9	2.3	2.5	2.9	2.6	2.0	2.9	2.1	2.1	2.2	2.2

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Parameter (ug/m ³)	Indoor Air - Large Retail Space																				
	IA-2-060713 6/7/2013	IA-2-090613 9/6/2013	IA-2-121313 12/13/13	IA-2-030714 03/07/14	IA-2-061314 6/13/2014	IA-2-091214 9/12/2014	IA-2-121914 12/19/2014	IA-2-032715 3/27/2015	IA-2-061115 6/11/2015	IA-2-091615 9/16/2015	IA-3-011609 1/16/2009	IA-3-020309 2/3/2009	IA-3-021109 2/11/2009	IA-3-021809 2/18/2009	IA-3-022609 2/26/2009	IA-3-041409 4/14/2009	IA-3-042409 4/24/2009	IA-3-091709 9/17/2009	IA-3-092409 9/24/2009	IA-3-100109 10/1/2009	IA-3-100809 10/8/2009
Ethanol	66	46	89	130	240	140	27	150	220	51	5.5	9.2	13	18	7.9	4.2	9.0	6.2	7.5	4.5	5.0
Ethyl acetate	0.39	0.28	13	0.36	0.25	0.35	0.17	0.45	0.49	7.5	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.39	0.17	0.15 U	0.56	0.27	0.14	0.076 J	0.2	0.15	0.16	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23	0.22 U	0.24
Hexachlorobutadiene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	1.6	0.65	4.9	1.2	0.74	0.56 J	0.29 J	5	0.44 J	1.1 J	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47	0.37	0.71
Isopropyl alcohol	3.4 U	1.7	9.7	4.1	3.4 U	4.4	1.5 J	7.3	3.8	5.4	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9	0.25 U	0.25 U
m,p-Xylene	1.4	0.48	0.25	1.6	0.88	0.44	0.31	0.61	0.45	0.32	0.75	0.9	2.0	2.6	0.65	0.57	0.66	0.70	0.99	0.65	0.87
Methyl methacrylate	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	0.14 U	0.14 U	0.14 U												
Methylene chloride	1.5	1.1	7.7	0.65	0.65	0.56 J	0.27 J	0.6 J	0.45 J	0.59 J	2.2	31	3.1	3.5	33	1.2	3.6	2.4	0.70 U	0.70 U	0.70 U
Methyl-t-butyl ether	0.13 U	0.13 U	0.13 U	0.13 U	0.072 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.41	0.2	0.14 U	0.64	0.39	0.18	0.14 U	0.21	0.2	0.35	0.22	0.20 U	0.61	0.77	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.24
o-Xylene	0.52	0.2	0.15 U	0.66	0.34	0.17	0.088 J	0.25	0.19	0.1 J	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45	0.27	0.34
Propylene (Propene)	2.4 U	0.7	2.4 U	2.4 U	2.7	1.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	
Styrene	0.15 U	0.17	0.15 U	0.20	0.35	0.40	0.15 U	0.18	0.23	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U					
Tetrachloroethene	0.64	0.25	0.24 U	0.28	0.34	0.13	0.32	0.65	0.4	0.41	6.1 [a]	0.56	4.3	3.3	1.9	2.2	7.1 [a]	0.34 U	0.34 U	2.0	1.1
Tetrahydrofuran	0.10 U	0.10 U	0.10 U	0.058	0.12	0.09	0.1 U	0.3	0.12	0.11	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U				
Toluene	2.8	1.3	1	3.20	1.90	1.60	0.64	1.40	1.30	4.70	1.7	1.5	4.7	5.8	2.1	1	1.2	1.2	1.1	0.73	1.1
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U				
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U				
Trichloroethene	0.19 U	0.19 U	0.19 U	0.23	0.19 U	0.064	0.14 J	0.079 J	0.19 U	0.44	3.9	0.49	1.7	1.5	0.53	0.77	1.8	0.27 U	0.27 U	1.1	0.54
Trichlorofluoromethane	2.0	1.3	1.6	1.2	1.3	1.3	1.4	1.3	1.5	1.2	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2	1.2	1.2
Trichlorotrifluoroethane	1.7	0.60	0.57	0.46	0.54	0.56	0.63	0.48 J	0.62 J	0.54 J	0.60	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46	0.49	0.47
Vinyl acetate	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U					
Vinyl chloride	0.090 U	0.090 U	0.090 U	0.090 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.23	0.13 U	0.19	0.21	0.13 U	0.10 U	0.17	0.13 U	0.18	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-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	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013	IA-3-031513 3/15/2013	IA-3-060713 6/7/2013	IA-3-090613 9/6/2013	IA-3-121313 12/13/2013	
1,1,1-Trichloroethane	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	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U		
1,1,1,2-Tetrachloroethane																0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	
1,1,2,2-Tetrachloroethane	0.34 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	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U		
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U		
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 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	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U		
1,2,4-Trimethylbenzene	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.60	0.25 U	0.49	0.25 U	0.25 U	0.071	0.10	0.19	0.47	0.17 U	0.076	0.26	0.33	0.17 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	0.051	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
1,2-Dichlortetrafluoroethane	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	0.42	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	0.15 U	0.15 U	0.074	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U		
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.059	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dioxane													0.18 U										
2-Butanone	1.9	2.0	1.2	1.6	0.51	1.0	2.2	3.3	0.95	0.39	0.76 B	2.9 U	5.9 U	1.2	0.45	2.4	2.7	0.93	2.2	2.0	2.9	0.66	
2-Hexanone	0.52	0.39	0.22	0.39	0.20 U	0.29	0.52	0.67	0.20 U	0.20 U	0.20 U	0.20 U	4.1 U	0.24	0.093	0.12 U	0.33	0.22	0.14 U	0.32	0.28	0.31	0.14 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	0.15 U	0.15 U	0.074	0.15	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.38	0.34	0.20 U	0.20 U	0.20 U	0.20 U	0.084	0.12 U	0.19	0.21	0.14 U	0.14 U	0.19	0.36	0.14 U	
Acetone	14	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2	3.9	13	12	6.7	12	28	16	14	
Benzene	1.3	0.86	0.67	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.30	0.39	0.35	0.23	0.66	0.53	0.75	0.23	0.75	0.54	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 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		
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	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U		
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U		
Carbon tetrachloride	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57 [a]	0.41	0.45	0.6 [a]	0.64 [a]	0.51	0.50	0.49	0.43	0.38	0.32	0.39	0.42	0.47	0.47	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U		
Chloroform	0.24 U	0.53	0.48	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	0.079	0.073 U	0.15	0.19	0.17 U	0.075	0.17 U	0.21	0.17 U	0.17 U	
Chloromethane	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	1.1	1.4	1.3	0.95	1.3	1.3	1.1	1.0	
cis-1,2-Dichloroethene	0.59	0.20 U	0.20 U	0.59	0.20 U	1.3	0.20 U	0.51	0.20 U	1.7	0.20 U	0.20 U	0.20 U	0.17	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.19	0.14 U		
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U		
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U		
Dichlorodifluoromethane	2.3	2.5	2.5	3.0	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	2.5	1.8	2.7	1.8	2.7	

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-3-012810 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	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013	IA-3-031513 3/15/2013	IA-3-060713 6/7/2013	IA-3-090613 9/6/2013	IA-3-121313 12/13/2013	
Ethanol	13	40	17	38	3.6	5.3	5.5	7.0	8.0	2.4	9.4	3.6	5.8	2.1	2.2	4.4	6.6	2.7	2.5	21	27	11	
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	0.11 U	0.73	0.37	0.51	0.68	0.44	0.28	0.34	2.6	
Ethylbenzene	0.43	0.22 U	0.22 U	0.22 U	0.22 U	0.26	0.23	0.29	0.47	0.22 U	0.47	0.36	0.22 U	0.12	0.11	0.14	0.42	0.27	0.098	0.18	0.36	0.15 U	
Hexachlorobutadiene	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	0.32 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	
Hexane	0.55	0.44	1.0	0.29	0.19	1.4	0.55	0.45	0.58	0.35 U	1.5	2.6	7.0 U	0.35	0.37	0.74	1.4	0.89	1.0	0.68	0.94	0.76	
Isopropyl alcohol	0.25 U	9.9	0.25 U	2.0	0.64	3.4	0.12 U	0.76	8.8	1.1	1.7	1.2 U	4.9 U	2.9 U	0.56	2.9 U	1.7	0.57	0.62	3.4 U	3.4 U	1.9	
m,p-Xylene	1.2	0.69	0.43 U	0.43 U	0.46	0.80	0.99	1.3	1.6	0.43 U	1.4	0.55	0.54	0.38	0.24	0.40	1.5	1.0	0.31	0.72	1.1	0.19	
Methyl methacrylate										0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	1.4	0.70 U	2.3	0.70 U	0.70 U	0.70 U	0.35 U	1.2	0.57	0.55	4.6	8.0	1.7 U	1.5	1.1	1.3	2.7	3.3	2.1	1.1	1.2	1.3	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.22	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
n-Heptane	0.73	0.20 U	0.20 U	0.20 U	0.20 U	0.36	0.20 U	0.20 U	0.32	0.20 U	0.44	0.20 U	0.20 U	0.074	0.12 U	0.11	0.41	0.14 U	0.083	0.15	0.83	0.14 U	
o-Xylene	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	0.13	0.11	0.16	0.57	0.35	0.13	0.26	0.46	0.15 U		
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.3	1.8	2.4 U	1.1	2.4 U	2.4 U	2.4 U	
Styrene	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	0.041	0.13 U	0.10	0.14	0.15 U	0.15 U	0.15 U	0.3	0.15 U		
Tetrachloroethene	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	0.23	0.16	2.3	0.25	0.095	0.30	0.24 U	0.24 U	
Tetrahydrafuran	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	0.08	0.088 U	0.088 U	0.072	0.10 U	0.10 U	0.14	0.73	0.10 U		
Toluene	2.50	0.78	0.61	0.46	0.81	1.5	0.93	1.1	2.3	0.41	2.7	0.58	0.95	1.5	0.27	0.72	2.8	0.62	0.56	0.9	4.6	0.66	
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	0.75	0.27 U	0.27 U	0.40	0.27 U	1.5	0.27 U	0.47	0.27 U	1.7	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.17	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Trichlorofluoromethane	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	1.0	0.92	1.6	1.5	1.2	1.3	1.5	1.6	1.4	
Trichlorotrifluoroethane	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	0.44	0.56	0.54	0.59	0.65	0.65	0.62	0.61	
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U		
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.13	0.13 U	0.13 U	0.13 U	0.077 U	0.078 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U		

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Providence, Rhode Island

Parameter (ug/m³)	Indoor Air - Large Retail Space																				
	IA-3-030714 03/07/14	IA-3-061314 6/13/2014	IA-3-091214 9/12/2014	IA-3-121914 12/19/2014	IA-3-032715 3/27/2015	IA-3-061115 6/11/2015	IA-3-091615 9/16/2015	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-4-102810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010
1,1,1-Trichloroethane	0.19 U	0.19 U	0.19	0.16 J	0.05 J	0.19 U	0.092 J	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.76	0.29				
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U														
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.069 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U							
1,1,2-Trichloroethane	0.19 U	0.19 U	0.11 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U							
1,1-Dichloroethane	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.73	0.20 U	0.20 U	0.20 U	0.31	0.14 U	0.20 U	0.20 U						
1,1-Dichloroethene	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.42	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U						
1,2,4-Trichlorobenzene	0.26 U	0.26 U	0.15 U	0.26 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U							
1,2,4-Trimethylbenzene	0.53	0.23	0.32	0.12 J	0.12 J	0.13 J	0.13 J	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
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.077 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U							
1,2-Dichlorobenzene	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U							
1,2-Dichloroethane	0.14 U	0.14 U	0.032 J	0.14 U	0.14 U	0.057 J	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U							
1,2-Dichloropropane	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U						
1,2-Dichlorotetrafluoroethane								0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U							
1,3,5-Trimethylbenzene	0.17 U	0.17 U	0.069 J	0.17 U	0.038 J	0.079 J	0.041 J	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U							
1,3-Butadiene	0.55	0.078 U	0.044 U	0.078 U	0.045 J	0.078 U	0.062 J	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					
1,3-Dichlorobenzene	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U							
1,4-Dichlorobenzene	0.21 U	0.21 U	0.12 U	0.068 J	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U							
1,4-Dioxane																					
2-Butanone	1.1	1.5	2.1 J	1.1 J	1.4 J	1.5 J	0.96 J	21	4.4	6.0	3.2	2.5	1.1	1.6	1.5	2.0	1.3	1.2	0.30 U	0.69	1.2
2-Hexanone	0.14 U	0.14 U	0.21	0.14 U	0.27	0.14	0.14 U	0.20 U	0.33	0.73	0.39	0.20 U	0.14 U	0.20 U	0.29	0.45	0.32	0.27	0.20 U	0.20 U	0.20 U
4-Ethyltoluene	0.18	0.17 U	0.051 J	0.059 J	0.086 J	0.045 J	0.066 J	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U							
4-Methyl-2-pentanone	0.17	0.35	0.26	0.27	0.15	0.13 J	0.14 U	0.20 U	0.20 U	0.43	0.28	0.20 U	0.14 U	0.20 U	0.20 U	0.32	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Acetone	11	15	42	29	11	10	15	17	10	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9
Benzene	2.4	0.41	0.29	0.5	0.5	0.28	0.43	1.1	0.68	1.8	3.0	0.76	0.59	0.44	0.40	0.43	0.37	0.48	0.16 U	0.88	0.66
Benzyl chloride	0.18 U	0.18 U	0.052 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U							
Bromodichloromethane	0.24 U	0.24 U	0.067 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U							
Bromoform	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.14 U	0.16	0.099	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U						
Carbon disulfide	1.1 U	0.15	0.16 J	0.24 J	1.1 U	0.092 J	0.13 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U						
Carbon tetrachloride	0.45	0.44	0.42	0.34	0.36	0.36	0.39	0.40	0.43	0.50	0.58 [a]	0.46	0.22 U	0.45	0.41	0.40	0.46	0.40	0.31 U	0.43	0.31 U
Chlorobenzene	0.16 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U							
Chloroethane	0.093 U	0.093 U	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.41	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U						
Chloroform	0.17 U	0.24	0.28	0.4	0.065 J	0.14 J	0.21	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.24 U					
Chloromethane	1.3	1.2	0.7	0.9	1.0	1.7	1.1	1.2	0.99	1.4	1.3	1.0	1.1	1.2	0.90	1.1	1.0	1.0	1.3	1.3	1.3
cis-1,2-Dichloroethene	0.14 U	0.14 U	0.04 U	0.46	0.14 U	0.14 U	0.11 J	2.4	0.20 U	1.1	1.1	0.98	0.61	1.7	0.20 U	0.20 U	0.84	0.48	0.20 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U							
Cyclohexane	0.34	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.44	0.64	0.17 U	0.12 U	0.17 U	0.17 U						
Dibromochloromethane	0.30 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U							
Dichlorodifluoromethane	1.5	2.1	2.2	1.8	1.4	2.3	1.6	1.9	2.2	2.5	2.8	2.6	2.1	2.4	2.1	2.0	2.2	2.2	2.4	2.5	2.6

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-3-030714 03/07/14	IA-3-061314 6/13/2014	IA-3-091214 9/12/2014	IA-3-121914 12/19/2014	IA-3-032715 3/27/2015	IA-3-061115 6/11/2015	IA-3-091615 9/16/2015	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-4-012810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010
Ethanol	24	64	41	580	8.7	16	25	5.3	8.9	12	18	8.0	5.2	5.5	6.0	6.5	4.9	5.6	7.7	34	17
Ethyl acetate	2.5	0.13 U	0.25	0.47	0.27	0.13 U	4.5	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					
Ethylbenzene	0.55	0.22	0.17	0.14 J	0.13 J	0.12 J	0.15 J	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
Hexachlorobutadiene	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	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	2.1	0.44	0.43 J	0.41 J	5.1	0.45 J	0.72 J	0.90	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
Isopropyl alcohol	2.1	5.2	4.8	7.7	1.9 J	0.87 J	2.1 J	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
m,p-Xylene	1.6	0.84	0.62	0.58	0.37	0.39	0.5	0.76	0.89	2.1	2.6	0.89	0.58	0.49	0.61	0.93	0.69	1.0	0.43 U	0.81	0.43 U
Methyl methacrylate	0.14 U	0.14 U	0.16	0.14 U	0.14 U		0.14 U														
Methylene chloride	2.2	0.77	0.58 J	0.29 J	2.1	0.54 J	0.73 J	2.3	29	1.7	2.5	1.3	1.9	2.2	0.70 U	9.7	0.70 U	0.70 U	1.5	0.70 U	1.9
Methyl-t-butyl ether	0.13 U	0.13 U	0.072 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U								
n-Heptane	0.65	0.43	0.52	0.14 U	0.13 J	0.19	0.17	0.23	0.20 U	0.58	0.79	0.21	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.26	0.20 U	0.20 U	0.20 U
o-Xylene	0.62	0.30	0.22	0.18	0.14 J	0.14 J	0.19	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
Propylene (Propene)	2.4 U	2.4 U	1.8	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	
Styrene	0.18	0.16	0.15	0.12 J	0.15 U	0.033 J	0.087 J	0.21 U	0.21 U	0.22	0.23	0.21 U	0.15 U	0.21 U	0.21 U						
Tetrachloroethene	0.24 U	0.30	0.12	1.90	0.24 U	0.26	0.2 J	7.3 [a]	0.58	4.4	3.4	3.4	2.4	7.9 [a]	0.75	0.34 U	2.0	1.1	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.10 U	0.13	0.16	0.1 U	0.1 U	0.1 U	0.1 U	13	1.2	1.3	0.47	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U				
Toluene	3.4	1.8	2.5	1.3	0.63	0.77	1.3	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
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	1.1	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U							
Trichloroethene	0.26	0.19 U	0.075	0.64	0.072 J	0.19 U	0.22	4.7	0.48	1.7	1.5	0.88	0.78	2.0	0.27 U	0.27 U	1.1	0.57	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.7	1.4	1.3	1.3	1	1.7	1.3	2.0	1.3	1.6	3.0	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3	1.4
Trichlorotrifluoroethane	0.51	0.59	0.57	0.63	0.47 J	0.69 J	0.55 J	0.72	0.59	0.51	0.45	0.57	0.54	0.61	0.49	0.48	0.47	0.50	0.38 U	0.55	0.58
Vinyl acetate	2.5 U	2.5 U	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U	0.71 U						
Vinyl chloride	0.090 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.29	0.13 U	0.20	0.22	0.13 U	0.10 U	0.20	0.13 U	0.13 U	0.16	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-4-021910 2/19/2010	IA-4-032610 3/26/2010	IA-4-043010 4/30/2010	IA-4-052810 5/28/2010	IA-4-070110 7/1/2010	IA-4-091610 9/16/2010	IA-4-120710 12/7/2010	IA-4-021711 2/17/2011	IA-4-060211 6/2/2011	IA-4-091511 9/15/2011	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013	IA-4-121313 12/13/2013	IA-4-030714 3/07/2014	IA-4-061314 6/13/2014	IA-4-091214 9/12/2014	
1,1,1-Trichloroethane	0.89	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.055 U	
1,1,1,2-Tetrachloroethane										0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 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	0.069 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	0.082 U	0.16 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	0.11 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	
1,2,4-Trichlorobenzene	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 U		
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.094	0.15 U	0.19	0.38	0.90	0.13	0.47	0.20	0.17 U	0.56	0.26	0.17		
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	0.23 U	0.12 U	0.23 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	0.077 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18	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	0.12 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 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	0.069 U	0.14 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	0.046 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	0.35 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	0.15 U	0.080	0.12	0.27	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.098 U	
1,3-Butadiene	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	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.044 U		
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U		
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U													
1,4-Dioxane																							
2-Butanone	0.50	1.6	1.5	2.2	4.8	2.4	0.96	1.0 B	2.9 U	5.9 U	1.0	1.5	0.97	2.3	4.7	2.3	3.9	0.95	1.2	1.1	2.9	4.6	
2-Hexanone	0.20 U	0.20 U	0.39	0.54	1.0	0.59	0.20 U	0.20 U	0.21 J	0.35	0.086	0.32	0.098	0.18	0.19	0.25	0.51	0.14 U	0.14 U	0.15	0.36	0.2	
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	0.15 U	0.15 U	0.068	0.12	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.098 U		
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.20 U	0.43	0.45	0.20 U	0.20 U	0.20 U	0.098	0.15	0.13	0.14 U	3.3	0.28	0.56	0.47	0.16	0.48	1.3	1		
Acetone	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	9.1	12	17	44	36	18	29	29	37	38	
Benzene	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.30	0.38	0.35	0.23	0.64	0.67	0.82	0.55	0.47	0.56	2.2	0.68	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	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.052 U		
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U		
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U		
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.24	0.14 U	0.14 U	0.13	0.14 U	0.14 U	0.14 U	0.14 U	0.078 U		
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.31	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.052	1.1 U	1.6	0.52	0.38	0.39	0.15	0.19	0.62	0.46 J	
Carbon tetrachloride	0.42	0.43	0.47	0.52	0.48	0.44	0.46	0.57 [a]	0.68 [a]	0.52	0.48	0.47	0.43	0.36	0.54	0.41	0.65 [a]	0.45	0.46	0.45	0.40	0.39	
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	0.14 U	0.14 U	0.16 U	0.47	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U		
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U		
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.13	0.19	0.17 U	0.11	0.17 U	0.27	0.44	0.46	0.84	1.2		
Chloromethane	1.2	1.1	0.77	1.2	1.2	1.0	0.95	0.95	1.1	1.5	1.4	1.0	1.3	1.3	1.1	1.3	1.6	1.0	1.1	1.4	1.2	0.89	
cis-1,2-Dichloroethene	0.59	0.20 U	1.3	0.20 U	0.44	0.20 U	1.8	0.20 U	0.20 U	0.19	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 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	0.045 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	0.10 U	0.10 U	0.10 U	0.26	2.1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.033		
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.085 U		
Dichlorodifluoromethane	3.0	1.7	2.1	2.5	2.6	1.5	2.0	3.2	1.8	1.7	2.8	2.0	2.9	2.8	2.8	1.7	3.3	1.8	2.7	1.3	2.1	2.1	

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

Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-4-021910 2/19/2010	IA-4-032610 3/26/2010	IA-4-043010 4/30/2010	IA-4-052810 5/28/2010	IA-4-070110 7/1/2010	IA-4-091610 9/16/2010	IA-4-120710 12/7/2010	IA-4-021711 2/17/2011	IA-4-060211 6/2/2011	IA-4-091511 9/15/2011	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013	IA-4-121313 12/13/2013	IA-4-030714 3/07/2014	IA-4-061314 6/13/2014	IA-4-091214 9/12/2014
Ethanol	31	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7.0	2.4	2.5	9.4	7.3	7.5	46	79	71	91	83	240	150
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	0.21	0.38	2.4	0.13 U	0.73	0.94	0.13 U	0.13 U	0.88	0.26	0.38	
Ethylbenzene	0.22 U	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 U	0.16	0.17	0.14	0.38	4.1	0.32	0.43	0.19	0.15 U	0.57	0.27	0.12
Hexachlorobutadiene	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 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	0.21 U	
Hexane	0.49	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1.0	7.0 U	0.35	0.55	0.47	5.0	17	0.89	2.8	0.53	4.9 U	1.3	0.75	0.58 J
Isopropyl alcohol	1.9	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 U	2.9 U	2.9 U	1.4	2.6	3.4 U	4.0	1.6	8.4	4.4	3.9	4.8	
m,p-Xylene	0.43 U	0.49	0.80	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.41	0.27	0.38	1.2	17	1.1	1.6	0.53	0.28	1.6	0.86	0.4
Methyl methacrylate							0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.13	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U
Methylene chloride	0.71	0.70 U	0.70 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 U	1.5	2.0	0.72	12	1.3	0.97	3.1	0.89	0.69	0.72	0.61	0.64 J
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	0.11 U	0.11 U	0.11 U	0.19	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.072 U
n-Heptane	0.20 U	0.20 U	0.20 U	0.20 U	0.22	0.32	0.20 U	0.51	0.20 U	0.20 U	0.071	0.12 U	0.11	0.41	1.6	0.32	0.53	0.16	0.14 U	0.66	0.39	0.17
o-Xylene	0.22 U	0.22 U	0.30	0.44	0.50	0.57	0.22 U	0.53	0.22 U	0.22 U	0.15	0.11	0.17	0.41	5.1	0.43	0.57	0.23	0.15 U	0.66	0.33	0.16
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.7	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	3.0	1.4 U		
Styrene	0.21 U	0.21 U	0.21 U	0.22	0.29	0.21 U	0.21 U	0.21 U	0.21 U	0.077	0.092	0.55	0.093	0.52	0.099	0.15 U	0.15 U	0.15 U	0.23	0.46	0.4	
Tetrachloroethene	1.4	0.34 U	4.4	0.44	1.1	0.34 U	3.4	5.0	0.34 U	0.45	1.2	0.31	0.12	1.7	0.18	0.21	0.45	0.30	0.24 U	0.31	0.32	0.23
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.076	0.088 U	0.055	0.10 U	0.28	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.12	0.094	
Toluene	0.47	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	1.6	0.32	0.8	2.9	4.8	1.5	3	1.4	0.75	3.4	1.9	1.4
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 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	0.045 U	
Trichloroethene	0.40	0.27 U	1.4	0.27 U	0.44	0.27 U	1.8	0.27 U	0.27 U	0.27 U	0.35	0.15	0.052	0.12	0.19 U	0.057	0.19 U	0.19 U	0.24	0.19 U	0.054 U	
Trichlorofluoromethane	1.6	1.5	1.3	1.3	1.9	2.4	1.2	1.8	1.4	1.8	1.3	0.87	1.5	1.7	2.8	1.2	2.2	1.3	1.5	1.3	1.4	1.3
Trichlorotrifluoroethane	0.55	1.3	0.48	0.51	0.59	0.43	0.54	0.70	0.71	0.52	0.71	0.44	0.56	0.59	0.60	0.66	1.6	0.65	0.58	0.49	0.54	0.55
Vinyl acetate	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	2.5 U	1.4 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.026 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-4-121914 12/19/2014	IA-4-032715 3/27/2015	IA-4-061115 6/11/2015	IA-4-091615 9/16/2015	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
1,1,1-Trichloroethane	0.28	0.19 U	0.19 U	0.054 J	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.50	0.49	0.53
1,1,1,2-Tetrachloroethane	0.44 U	0.44 U	0.44 U	0.44 U										
1,1,2,2-Tetrachloroethane	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2,4-Trichlorobenzene	0.26 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.14 J	0.25	0.2	0.22	0.25 U	0.25 U	0.25 U	0.29	0.25 U					
1,2-Dibromoethane (EDB)	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,2-Dichloroethane	0.14 U	0.14 U	0.051 J	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane					0.35 U									
1,3,5-Trimethylbenzene	0.17 U	0.066 J	0.066 J	0.066 J	0.25 U									
1,3-Butadiene	0.078 U	0.078 U	0.078 U	0.16	0.11 U									
1,3-Dichlorobenzene	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,4-Dichlorobenzene	0.08 J	0.063 J	0.12 J	0.084 J	0.30 U									
1,4-Dioxane														
2-Butanone	1.1 J	1.9 J	1.9 J	1.8 J	3.3	3.4	2.1	2.6	2.0	1.6	3.1	2.5	2.6	1.4
2-Hexanone	0.14 U	0.25	0.14 U	0.14 U	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48	0.43	0.29
4-Ethyltoluene	0.055 J	0.069 J	0.041 J	0.076 J	0.25 U									
4-Methyl-2-pentanone	0.34	0.89	0.97	1.6	0.42	0.39	0.32	0.36	0.54	0.27	0.32	0.30	0.61	0.23
Acetone	27	42	28	170 E	12	13	10	11	8.5	7.7	13	11	9.8	6.9
Benzene	0.47	0.69	0.36	0.79	0.54	0.60	0.67	0.55	0.56	0.51	0.53	0.60	0.51	0.57
Benzyl chloride	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.27 J	0.31 J	0.35 J	0.44 J	0.16 U									
Carbon tetrachloride	0.37	0.35	0.31	0.41	0.7 [a]	0.68 [a]	0.71 [a]	0.68 [a]	0.68 [a]	0.63 [a]	0.68 [a]	0.7 [a]	0.64 [a]	0.66 [a]
Chlorobenzene	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.69	0.39	1.2	0.28	0.24 U									
Chloromethane	0.97	1.2	1.8	1.2	1.0	0.98	1.0	0.95	1.0	1.0	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	0.87	0.14 U	0.14 U	0.053 J	0.20 U	0.21	0.20 U	0.20 U	0.20 U					
cis-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	1.7	1.4	2.1	1.7	2.5	2.3	2.6	2.4	2.7	2.4	2.4	2.8	2.3	2.7

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Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space													
	IA-4-121914 12/19/2014	IA-4-032715 3/27/2015	IA-4-061115 6/11/2015	IA-4-091615 9/16/2015	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
Ethanol	260	190	330	57	65	9.0	6.5	5.9	6.0	5.6	5.9	14	44	14
Ethyl acetate	0.46	0.69	0.69	9.9	0.18 U									
Ethylbenzene	0.14 J	0.19	0.16	0.34	0.22 U	0.27	0.22 U							
Hexachlorobutadiene	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	0.44 J	5.6	0.45 J	1.6 J	1.1	0.21	0.18 U	0.18	0.24	0.18 U	0.19	0.21	0.20	0.18 U
Isopropyl alcohol	8.2	7.1	3.9	7.1	3.3	3.4	3.7	3.5	3.6	3.4	4.4	3.6	2.8	3.2
m,p-Xylene	0.56	0.62	0.46	1.1	0.58	0.57	0.58	0.55	0.49	0.50	0.48	0.53	1.0	0.50
Methyl methacrylate	0.14 U	0.14 U		0.14 U										
Methylene chloride	0.29 J	1.5	0.45 J	1.7	5.9	1.5	1.5	1.6	1.9	1.6	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.11 J	0.22	0.17	0.42	0.20 U									
o-Xylene	0.17	0.25	0.19	0.4	0.28	0.28	0.27	0.27	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	2.4 U	2.4 U	2.4 U	2.4 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U
Styrene	0.15 J	0.19	0.38	0.29	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	3.2	0.98	0.36	0.58	0.47	0.47	0.54	0.66	0.64	0.60	0.73	0.53	0.46	0.46
Tetrahydrofuran	0.1 U	0.24	0.11	0.11	0.15 U	0.15 U	0.15 U	0.15 U	0.20	0.15 U				
Toluene	1.4	1.4	1.2	7.1	0.73	0.7	0.58	0.59	0.51	0.53	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	1.2	0.083 J	0.19 U	0.51	0.27 U	0.28	0.27	0.29	0.34	0.27	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.4	1.4	1.3	1.3	1.3	1.2	1.1	1.4	1.3	1.1	1.4	1.0	1.4
Trichlorotrifluoroethane	0.62	0.52 J	0.65 J	0.58 J	0.63	0.60	0.65	0.62	0.64	0.57	0.59	0.68	0.62	0.58
Vinyl acetate	2.5 U	2.5 U	2.5 U	2.5 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
Vinyl chloride	0.072 J	0.09 U	0.09 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:

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

NA - not available

U - Not detected, value is the detection limit

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

D - Result from diluted analyses

J - Indicates compound was detected at an estimated value.

ug/m³ - micrograms per cubic meter

Prepared by / Date: AKN 10/12/15

Checked by / Date: DEH 10/13/15

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

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

Date	Pressure Differential (inches of water)			
	VMW-1	VMW-2	VMW-3	VMW-4
2/3/2009	-0.20	-0.62	-0.15	-0.12
2/18/2009	-0.509	-0.738	-0.650	-0.253
2/26/2009	-0.511	-0.710	-0.665	-0.273
3/6/2009	-0.507	-0.610	-0.715	-0.251
3/6/2009*	-0.120	-0.195	-0.230	-0.028
3/31/2009	-0.148	-0.221	-0.244	-0.072
4/14/2009	-0.140	-0.210	-0.215	-0.081
5/15/2009	-0.133	-0.193	-0.208	-0.087
9/17/2009	-0.132	-0.172	-0.209	-0.087
9/24/2009	-0.146	-0.189	-0.254	-0.094
10/1/2009	-0.181	-0.232	-0.233	-0.097
10/8/2009	-0.197	-0.212	-0.255	-0.087
12/29/2009**	-0.021	-0.020	-0.160	-0.023
1/28/2010	-0.947	-0.642	-0.709	-0.237
2/5/2010	-0.497	-0.714	-0.510	-0.258
2/12/2010	-0.509	-0.706	-0.537	-0.261
2/19/2010	-0.526	-0.733	-0.667	-0.242
3/26/2010	-0.636	-0.860	-0.671	-0.331
4/30/2010	-0.519	-0.713	-0.378	-0.287
5/28/2010	-0.546	-0.727	+1.371	-0.279
7/1/2010	-0.505	-0.678	+1.568	-0.272
9/16/2010	-0.496	-0.654	+0.980	-0.272
12/7/2010	-0.126	-0.202	-0.155	-0.052
2/17/2011	-0.491	-0.683	-0.737	-0.263
6/2/2011	-0.561	-0.767	-0.393	-0.290
9/15/2011	-0.517	-0.710	+1.071	-0.260
12/8/2011	-0.609	-0.826	+1.502	-0.313
3/8/2012	-0.422	-0.680	+0.329	-0.288
6/14/2012	-0.372	-0.767	+2.389	-0.280
9/13/2012	-0.543	-1.021	-0.665	-0.283
1/3/2013	-0.495	-0.628	-1.141	-0.674
3/15/2013	-0.539	-0.636	-0.754	-0.254
6/7/2013	-0.121	-0.681	-0.787	-0.223
9/6/2013	-0.421	-0.743	-0.766	-0.265
12/13/2013	-0.435	-0.580	-0.031	-0.190
3/7/2014	-0.311	-0.541	-0.741	-0.157
6/13/2014	-0.538	-0.627	-0.010	-0.058
9/12/2014	-0.549	-0.528	-0.295	-0.002
12/19/2014	-0.492	-0.427	-0.002	-0.143
3/27/2015	-0.433	-0.655	-0.011	-0.108
6/11/2015	-0.49***	-0.66***	-0.5***	-0.15***
9/16/2015	-0.535	-0.409	-0.611	-0.123

* vacuum reduced at extraction wells

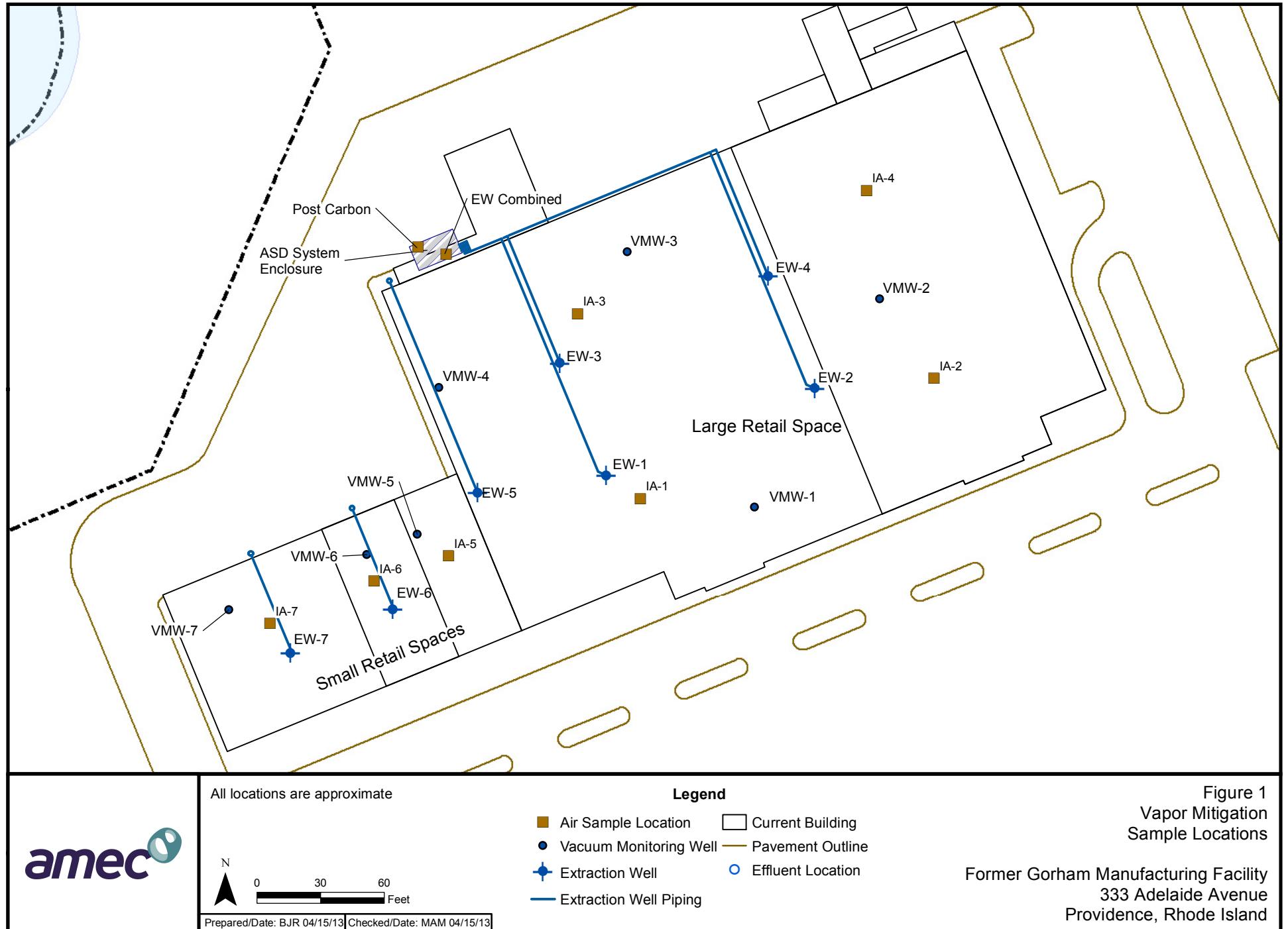
** ASD system offline

*** Due to Digital Manometer reading high range only at the time of measurement, readings are in tenths of inches of water.

Prepared by/Date: MAM 09/17/15

Checked by/Date: DEH 10/8/15

FIGURES



APPENDIX A

Laboratory Reports



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

September 25, 2015

David Heislein
AMEC - MA
271 Mill Road
Chelmsford, MA 01824

Project Location: Textron Gorham

Client Job Number:

Project Number: 3652150005

Laboratory Work Order Number: 15I0764

Enclosed are results of analyses for samples received by the laboratory on September 16, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron L. Benoit". It is written in a cursive, flowing style with some loops and variations in thickness.

Aaron L. Benoit
Project Manager

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

AMEC - MA
271 Mill Road
Chelmsford, MA 01824
ATTN: David Heislein

REPORT DATE: 9/25/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 3652150005

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15I0764

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

PROJECT LOCATION: Textron Gorham

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-091615	15I0764-01	Indoor air		EPA TO-15	
IA-2-091615	15I0764-02	Indoor air		EPA TO-15	
IA-3-091615	15I0764-03	Indoor air		EPA TO-15	
IA-4-091615	15I0764-04	Indoor air		EPA TO-15	
IA-5-091615	15I0764-05	Indoor air		EPA TO-15	
IA-6-091615	15I0764-06	Indoor air		EPA TO-15	
IA-7-091615	15I0764-07	Indoor air		EPA TO-15	
AA-1-091615	15I0764-08	Ambient Air		EPA TO-15	
EW-5-091615	15I0764-09	Sub Slab		EPA TO-15	
EW-6-091615	15I0764-10	Sub Slab		EPA TO-15	
EW-7-091615	15I0764-11	Sub Slab		EPA TO-15	
EW-Combined-091615	15I0764-12	Sub Slab		EPA TO-15	
Unused Can #1201 & Accessories	15I0764-13	Air		-	



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

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:

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.

Analyte & Samples(s) Qualified:

Bromomethane

15I0764-09[EW-5-091615], B131555-BLK1, B131555-BS1

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.

Analyte & Samples(s) Qualified:

Acetone

15I0764-01[IA-1-091615], 15I0764-02[IA-2-091615], 15I0764-03[IA-3-091615], 15I0764-04[IA-4-091615], 15I0764-05[IA-5-091615], 15I0764-06[IA-6-091615],
15I0764-07[IA-7-091615], 15I0764-08[AA-1-091615], 15I0764-10[EW-6-091615], B131554-BS1, B131554-DUP1

Isopropanol

15I0764-02[IA-2-091615], 15I0764-04[IA-4-091615], 15I0764-05[IA-5-091615], 15I0764-06[IA-6-091615], 15I0764-07[IA-7-091615], 15I0764-11[EW-7-091615],
B131554-BS1

V-05

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

Analyte & Samples(s) Qualified:

Naphthalene

15I0764-01[IA-1-091615], 15I0764-02[IA-2-091615], 15I0764-03[IA-3-091615], 15I0764-04[IA-4-091615], 15I0764-05[IA-5-091615], 15I0764-06[IA-6-091615],
15I0764-07[IA-7-091615], 15I0764-08[AA-1-091615], 15I0764-09[EW-5-091615], 15I0764-10[EW-6-091615], 15I0764-11[EW-7-091615],
15I0764-12[EW-Combined-091615], B131554-BLK1, B131554-BS1, B131554-DUP1, B131555-BLK1, B131555-BS1

V-06

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

Analyte & Samples(s) Qualified:

Isopropanol

15I0764-02[IA-2-091615], 15I0764-04[IA-4-091615], 15I0764-05[IA-5-091615], 15I0764-06[IA-6-091615], 15I0764-07[IA-7-091615], 15I0764-11[EW-7-091615],
B131554-BS1

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

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

Daren J. Damboragian
Laboratory Manager



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-1-091615
Sample ID: 15I0764-01
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 07:33

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1008
 Canister Size: 6 liter
 Flow Controller ID: 4080
 Sample Type: 30 min

Work Order: 15I0764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -10
 Receipt Vacuum(in Hg): -10.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	7.1	1.4	L-05	17	3.3		0.702	9/24/15 0:14	TPH
Benzene	0.14	0.035		0.46	0.11		0.702	9/24/15 0:14	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 0:14	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 0:14	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 0:14	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 0:14	TPH
1,3-Butadiene	0.060	0.035		0.13	0.078		0.702	9/24/15 0:14	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 0:14	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 0:14	TPH
Carbon Tetrachloride	0.077	0.035		0.49	0.22		0.702	9/24/15 0:14	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 0:14	TPH
Chloroethane	0.036	0.035		0.096	0.093		0.702	9/24/15 0:14	TPH
Chloroform	0.061	0.035		0.30	0.17		0.702	9/24/15 0:14	TPH
Chloromethane	0.56	0.070		1.2	0.14		0.702	9/24/15 0:14	TPH
Cyclohexane	ND	0.035		ND	0.12		0.702	9/24/15 0:14	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 0:14	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 0:14	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 0:14	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 0:14	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 0:14	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.035		1.7	0.17		0.702	9/24/15 0:14	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 0:14	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 0:14	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 0:14	TPH
cis-1,2-Dichloroethylene	0.038	0.035		0.15	0.14		0.702	9/24/15 0:14	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 0:14	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 0:14	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 0:14	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 0:14	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	0.036	0.035		0.26	0.25		0.702	9/24/15 0:14	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 0:14	TPH
Ethanol	11	1.4		21	2.6		0.702	9/24/15 0:14	TPH
Ethyl Acetate	0.18	0.035		0.65	0.13		0.702	9/24/15 0:14	TPH
Ethylbenzene	0.042	0.035		0.18	0.15		0.702	9/24/15 0:14	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 0:14	TPH
Heptane	0.059	0.035		0.24	0.14		0.702	9/24/15 0:14	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 0:14	TPH



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-1-091615
Sample ID: 1510764-01
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 07:33

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1008
 Canister Size: 6 liter
 Flow Controller ID: 4080
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -10
 Receipt Vacuum(in Hg): -10.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 0:14	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 0:14	TPH
Isopropanol	ND	1.4		ND	3.4	0.702	9/24/15 0:14	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 0:14	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 0:14	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	9/24/15 0:14	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 0:14	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 0:14	TPH
Styrene	ND	0.035		ND	0.15	0.702	9/24/15 0:14	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 0:14	TPH
Tetrachloroethylene	0.17	0.035		1.2	0.24	0.702	9/24/15 0:14	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	9/24/15 0:14	TPH
Toluene	0.33	0.035		1.3	0.13	0.702	9/24/15 0:14	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 0:14	TPH
1,1,1-Trichloroethane	0.051	0.035		0.28	0.19	0.702	9/24/15 0:14	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 0:14	TPH
Trichloroethylene	0.082	0.035		0.44	0.19	0.702	9/24/15 0:14	TPH
Trichlorofluoromethane (Freon 11)	0.24	0.14		1.3	0.79	0.702	9/24/15 0:14	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 0:14	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 0:14	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 0:14	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 0:14	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 0:14	TPH
m&p-Xylene	0.13	0.070		0.58	0.30	0.702	9/24/15 0:14	TPH
o-Xylene	0.051	0.035		0.22	0.15	0.702	9/24/15 0:14	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/24/15 0:14



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-2-091615
Sample ID: 1510764-02
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 10:35

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1283
 Canister Size: 6 liter
 Flow Controller ID: 4039
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -7.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	70	1.4	L-05	170	3.3		0.702	9/24/15 1:04	TPH
Benzene	0.21	0.035		0.66	0.11		0.702	9/24/15 1:04	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 1:04	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 1:04	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 1:04	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
1,3-Butadiene	0.068	0.035		0.15	0.078		0.702	9/24/15 1:04	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 1:04	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 1:04	TPH
Carbon Tetrachloride	0.051	0.035		0.32	0.22		0.702	9/24/15 1:04	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 1:04	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 1:04	TPH
Chloroform	0.048	0.035		0.24	0.17		0.702	9/24/15 1:04	TPH
Chloromethane	0.55	0.070		1.1	0.14		0.702	9/24/15 1:04	TPH
Cyclohexane	0.041	0.035		0.14	0.12		0.702	9/24/15 1:04	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 1:04	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 1:04	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:04	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:04	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:04	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.035		1.7	0.17		0.702	9/24/15 1:04	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:04	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 1:04	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 1:04	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 1:04	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 1:04	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 1:04	TPH
Ethanol	27	1.4		51	2.6		0.702	9/24/15 1:04	TPH
Ethyl Acetate	2.1	0.035		7.5	0.13		0.702	9/24/15 1:04	TPH
Ethylbenzene	0.036	0.035		0.16	0.15		0.702	9/24/15 1:04	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 1:04	TPH
Heptane	0.085	0.035		0.35	0.14		0.702	9/24/15 1:04	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 1:04	TPH



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-2-091615
Sample ID: 1510764-02
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 10:35

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1283
 Canister Size: 6 liter
 Flow Controller ID: 4039
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -7.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 1:04	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 1:04	TPH
Isopropanol	2.2	1.4	L-05, V-06	5.4	3.4	0.702	9/24/15 1:04	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 1:04	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 1:04	TPH
4-Methyl-2-pentanone (MIBK)	0.28	0.035		1.2	0.14	0.702	9/24/15 1:04	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 1:04	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 1:04	TPH
Styrene	ND	0.035		ND	0.15	0.702	9/24/15 1:04	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 1:04	TPH
Tetrachloroethylene	0.060	0.035		0.41	0.24	0.702	9/24/15 1:04	TPH
Tetrahydrofuran	0.037	0.035		0.11	0.10	0.702	9/24/15 1:04	TPH
Toluene	1.2	0.035		4.7	0.13	0.702	9/24/15 1:04	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 1:04	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 1:04	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 1:04	TPH
Trichloroethylene	0.083	0.035		0.44	0.19	0.702	9/24/15 1:04	TPH
Trichlorofluoromethane (Freon 11)	0.21	0.14		1.2	0.79	0.702	9/24/15 1:04	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 1:04	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 1:04	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 1:04	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 1:04	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 1:04	TPH
m&p-Xylene	0.074	0.070		0.32	0.30	0.702	9/24/15 1:04	TPH
o-Xylene	ND	0.035		ND	0.15	0.702	9/24/15 1:04	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	9/24/15 1:04



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-3-091615
Sample ID: 1510764-03
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 07:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1258
 Canister Size: 6 liter
 Flow Controller ID: 4079
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	6.3	1.4	L-05	15	3.3		0.702	9/24/15 1:49	TPH
Benzene	0.13	0.035		0.43	0.11		0.702	9/24/15 1:49	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 1:49	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 1:49	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 1:49	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
1,3-Butadiene	ND	0.035		ND	0.078		0.702	9/24/15 1:49	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 1:49	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 1:49	TPH
Carbon Tetrachloride	0.062	0.035		0.39	0.22		0.702	9/24/15 1:49	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 1:49	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 1:49	TPH
Chloroform	0.042	0.035		0.21	0.17		0.702	9/24/15 1:49	TPH
Chloromethane	0.54	0.070		1.1	0.14		0.702	9/24/15 1:49	TPH
Cyclohexane	ND	0.035		ND	0.12		0.702	9/24/15 1:49	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 1:49	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 1:49	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:49	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:49	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 1:49	TPH
Dichlorodifluoromethane (Freon 12)	0.33	0.035		1.6	0.17		0.702	9/24/15 1:49	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 1:49	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 1:49	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 1:49	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 1:49	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 1:49	TPH
Ethanol	13	1.4		25	2.6		0.702	9/24/15 1:49	TPH
Ethyl Acetate	1.3	0.035		4.5	0.13		0.702	9/24/15 1:49	TPH
Ethylbenzene	ND	0.035		ND	0.15		0.702	9/24/15 1:49	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 1:49	TPH
Heptane	0.041	0.035		0.17	0.14		0.702	9/24/15 1:49	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 1:49	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-3-091615
Sample ID: 1510764-03
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 07:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1258
 Canister Size: 6 liter
 Flow Controller ID: 4079
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Hexane	ND	1.4		ND	4.9		0.702	9/24/15 1:49	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
Isopropanol	ND	1.4		ND	3.4		0.702	9/24/15 1:49	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13		0.702	9/24/15 1:49	TPH
Methylene Chloride	ND	0.35		ND	1.2		0.702	9/24/15 1:49	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14		0.702	9/24/15 1:49	TPH
Naphthalene	0.055	0.035	V-05	0.29	0.18		0.702	9/24/15 1:49	TPH
Propene	ND	1.4		ND	2.4		0.702	9/24/15 1:49	TPH
Styrene	ND	0.035		ND	0.15		0.702	9/24/15 1:49	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24		0.702	9/24/15 1:49	TPH
Tetrachloroethylene	ND	0.035		ND	0.24		0.702	9/24/15 1:49	TPH
Tetrahydrofuran	ND	0.035		ND	0.10		0.702	9/24/15 1:49	TPH
Toluene	0.33	0.035		1.3	0.13		0.702	9/24/15 1:49	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26		0.702	9/24/15 1:49	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19		0.702	9/24/15 1:49	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19		0.702	9/24/15 1:49	TPH
Trichloroethylene	0.041	0.035		0.22	0.19		0.702	9/24/15 1:49	TPH
Trichlorofluoromethane (Freon 11)	0.23	0.14		1.3	0.79		0.702	9/24/15 1:49	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1		0.702	9/24/15 1:49	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17		0.702	9/24/15 1:49	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17		0.702	9/24/15 1:49	TPH
Vinyl Acetate	ND	0.70		ND	2.5		0.702	9/24/15 1:49	TPH
Vinyl Chloride	ND	0.035		ND	0.090		0.702	9/24/15 1:49	TPH
m&p-Xylene	0.11	0.070		0.50	0.30		0.702	9/24/15 1:49	TPH
o-Xylene	0.044	0.035		0.19	0.15		0.702	9/24/15 1:49	TPH

Surrogates	% Recovery	% REC Limits
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4-Bromofluorobenzene (1)	102	70-130
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9/24/15 1:49



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-4-091615
Sample ID: 1510764-04
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 10:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1211
 Canister Size: 6 liter
 Flow Controller ID: 4107
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.4
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	73	1.4	L-05	170	3.3		0.702	9/24/15 2:36	TPH
Benzene	0.25	0.035		0.79	0.11		0.702	9/24/15 2:36	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 2:36	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 2:36	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 2:36	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
1,3-Butadiene	0.074	0.035		0.16	0.078		0.702	9/24/15 2:36	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 2:36	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 2:36	TPH
Carbon Tetrachloride	0.065	0.035		0.41	0.22		0.702	9/24/15 2:36	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 2:36	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 2:36	TPH
Chloroform	0.058	0.035		0.28	0.17		0.702	9/24/15 2:36	TPH
Chloromethane	0.57	0.070		1.2	0.14		0.702	9/24/15 2:36	TPH
Cyclohexane	ND	0.035		ND	0.12		0.702	9/24/15 2:36	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 2:36	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 2:36	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 2:36	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 2:36	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 2:36	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.035		1.7	0.17		0.702	9/24/15 2:36	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 2:36	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 2:36	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 2:36	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 2:36	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 2:36	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 2:36	TPH
Ethanol	31	1.4		57	2.6		0.702	9/24/15 2:36	TPH
Ethyl Acetate	2.7	0.035		9.9	0.13		0.702	9/24/15 2:36	TPH
Ethylbenzene	0.079	0.035		0.34	0.15		0.702	9/24/15 2:36	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 2:36	TPH
Heptane	0.10	0.035		0.42	0.14		0.702	9/24/15 2:36	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 2:36	TPH



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

ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-4-091615
Sample ID: 1510764-04
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 10:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1211
 Canister Size: 6 liter
 Flow Controller ID: 4107
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.4
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 2:36	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 2:36	TPH
Isopropanol	2.9	1.4	L-05, V-06	7.1	3.4	0.702	9/24/15 2:36	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 2:36	TPH
Methylene Chloride	0.48	0.35		1.7	1.2	0.702	9/24/15 2:36	TPH
4-Methyl-2-pentanone (MIBK)	0.39	0.035		1.6	0.14	0.702	9/24/15 2:36	TPH
Naphthalene	0.044	0.035	V-05	0.23	0.18	0.702	9/24/15 2:36	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 2:36	TPH
Styrene	0.068	0.035		0.29	0.15	0.702	9/24/15 2:36	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 2:36	TPH
Tetrachloroethylene	0.085	0.035		0.58	0.24	0.702	9/24/15 2:36	TPH
Tetrahydrofuran	0.036	0.035		0.11	0.10	0.702	9/24/15 2:36	TPH
Toluene	1.9	0.035		7.1	0.13	0.702	9/24/15 2:36	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 2:36	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 2:36	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 2:36	TPH
Trichloroethylene	0.095	0.035		0.51	0.19	0.702	9/24/15 2:36	TPH
Trichlorofluoromethane (Freon 11)	0.23	0.14		1.3	0.79	0.702	9/24/15 2:36	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 2:36	TPH
1,2,4-Trimethylbenzene	0.046	0.035		0.22	0.17	0.702	9/24/15 2:36	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 2:36	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 2:36	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 2:36	TPH
m&p-Xylene	0.25	0.070		1.1	0.30	0.702	9/24/15 2:36	TPH
o-Xylene	0.093	0.035		0.40	0.15	0.702	9/24/15 2:36	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	9/24/15 2:36

ANALYTICAL RESULTS

Project Location: Textron Gorham
Date Received: 9/16/2015
Field Sample #: IA-5-091615
Sample ID: 1510764-05
Sample Matrix: Indoor air
Sampled: 9/16/2015 08:10

Sample Description/Location:
Sub Description/Location:
Canister ID: 1945
Canister Size: 6 liter
Flow Controller ID: 4294
Sample Type: 30 min

Work Order: 1510764
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -6
Receipt Vacuum(in Hg): -5.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	7.5	1.4	L-05	18	3.3		0.702	9/24/15 3:23	TPH
Benzene	0.24	0.035		0.76	0.11		0.702	9/24/15 3:23	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 3:23	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 3:23	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 3:23	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
1,3-Butadiene	0.086	0.035		0.19	0.078		0.702	9/24/15 3:23	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 3:23	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 3:23	TPH
Carbon Tetrachloride	0.069	0.035		0.44	0.22		0.702	9/24/15 3:23	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 3:23	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 3:23	TPH
Chloroform	0.039	0.035		0.19	0.17		0.702	9/24/15 3:23	TPH
Chloromethane	0.51	0.070		1.1	0.14		0.702	9/24/15 3:23	TPH
Cyclohexane	0.051	0.035		0.18	0.12		0.702	9/24/15 3:23	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 3:23	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 3:23	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 3:23	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 3:23	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 3:23	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.035		1.7	0.17		0.702	9/24/15 3:23	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 3:23	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 3:23	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 3:23	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 3:23	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 3:23	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 3:23	TPH
Ethanol	7.0	1.4		13	2.6		0.702	9/24/15 3:23	TPH
Ethyl Acetate	0.17	0.035		0.61	0.13		0.702	9/24/15 3:23	TPH
Ethylbenzene	0.077	0.035		0.34	0.15		0.702	9/24/15 3:23	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 3:23	TPH
Heptane	0.086	0.035		0.35	0.14		0.702	9/24/15 3:23	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 3:23	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-5-091615
Sample ID: 1510764-05
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 08:10

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1945
 Canister Size: 6 liter
 Flow Controller ID: 4294
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 3:23	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 3:23	TPH
Isopropanol	2.1	1.4	L-05, V-06	5.3	3.4	0.702	9/24/15 3:23	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 3:23	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 3:23	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	9/24/15 3:23	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 3:23	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 3:23	TPH
Styrene	0.042	0.035		0.18	0.15	0.702	9/24/15 3:23	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 3:23	TPH
Tetrachloroethylene	ND	0.035		ND	0.24	0.702	9/24/15 3:23	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	9/24/15 3:23	TPH
Toluene	0.72	0.035		2.7	0.13	0.702	9/24/15 3:23	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 3:23	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 3:23	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 3:23	TPH
Trichloroethylene	ND	0.035		ND	0.19	0.702	9/24/15 3:23	TPH
Trichlorofluoromethane (Freon 11)	0.23	0.14		1.3	0.79	0.702	9/24/15 3:23	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 3:23	TPH
1,2,4-Trimethylbenzene	0.046	0.035		0.23	0.17	0.702	9/24/15 3:23	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 3:23	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 3:23	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 3:23	TPH
m&p-Xylene	0.24	0.070		1.0	0.30	0.702	9/24/15 3:23	TPH
o-Xylene	0.084	0.035		0.36	0.15	0.702	9/24/15 3:23	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/24/15 3:23



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-6-091615
Sample ID: 1510764-06
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 09:50

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1259
 Canister Size: 6 liter
 Flow Controller ID: 4298
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -5.9
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	7.2	1.4	L-05	17	3.3		0.702	9/24/15 4:09	TPH
Benzene	0.18	0.035		0.56	0.11		0.702	9/24/15 4:09	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 4:09	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 4:09	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 4:09	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
1,3-Butadiene	0.062	0.035		0.14	0.078		0.702	9/24/15 4:09	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 4:09	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 4:09	TPH
Carbon Tetrachloride	0.066	0.035		0.41	0.22		0.702	9/24/15 4:09	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 4:09	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 4:09	TPH
Chloroform	0.037	0.035		0.18	0.17		0.702	9/24/15 4:09	TPH
Chloromethane	0.52	0.070		1.1	0.14		0.702	9/24/15 4:09	TPH
Cyclohexane	ND	0.035		ND	0.12		0.702	9/24/15 4:09	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 4:09	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 4:09	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:09	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:09	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:09	TPH
Dichlorodifluoromethane (Freon 12)	0.33	0.035		1.7	0.17		0.702	9/24/15 4:09	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:09	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 4:09	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 4:09	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 4:09	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 4:09	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 4:09	TPH
Ethanol	17	1.4		31	2.6		0.702	9/24/15 4:09	TPH
Ethyl Acetate	0.14	0.035		0.51	0.13		0.702	9/24/15 4:09	TPH
Ethylbenzene	0.051	0.035		0.22	0.15		0.702	9/24/15 4:09	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 4:09	TPH
Heptane	0.060	0.035		0.24	0.14		0.702	9/24/15 4:09	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 4:09	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-6-091615
Sample ID: 1510764-06
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 09:50

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1259
 Canister Size: 6 liter
 Flow Controller ID: 4298
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -5.9
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 4:09	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 4:09	TPH
Isopropanol	3.1	1.4	L-05, V-06	7.7	3.4	0.702	9/24/15 4:09	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 4:09	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 4:09	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	9/24/15 4:09	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 4:09	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 4:09	TPH
Styrene	ND	0.035		ND	0.15	0.702	9/24/15 4:09	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 4:09	TPH
Tetrachloroethylene	0.050	0.035		0.34	0.24	0.702	9/24/15 4:09	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	9/24/15 4:09	TPH
Toluene	0.47	0.035		1.8	0.13	0.702	9/24/15 4:09	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 4:09	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 4:09	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 4:09	TPH
Trichloroethylene	0.081	0.035		0.44	0.19	0.702	9/24/15 4:09	TPH
Trichlorofluoromethane (Freon 11)	0.23	0.14		1.3	0.79	0.702	9/24/15 4:09	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 4:09	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 4:09	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 4:09	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 4:09	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 4:09	TPH
m&p-Xylene	0.12	0.070		0.53	0.30	0.702	9/24/15 4:09	TPH
o-Xylene	0.040	0.035		0.17	0.15	0.702	9/24/15 4:09	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	9/24/15 4:09



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-7-091615
Sample ID: 1510764-07
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 09:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1204
 Canister Size: 6 liter
 Flow Controller ID: 4200
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -3.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	16	1.4	L-05	39	3.3		0.702	9/24/15 4:53	TPH
Benzene	0.28	0.035		0.91	0.11		0.702	9/24/15 4:53	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 4:53	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 4:53	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 4:53	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 4:53	TPH
1,3-Butadiene	ND	0.035		ND	0.078		0.702	9/24/15 4:53	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 4:53	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 4:53	TPH
Carbon Tetrachloride	0.062	0.035		0.39	0.22		0.702	9/24/15 4:53	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 4:53	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 4:53	TPH
Chloroform	0.046	0.035		0.23	0.17		0.702	9/24/15 4:53	TPH
Chloromethane	0.63	0.070		1.3	0.14		0.702	9/24/15 4:53	TPH
Cyclohexane	0.035	0.035		0.12	0.12		0.702	9/24/15 4:53	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 4:53	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 4:53	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:53	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:53	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 4:53	TPH
Dichlorodifluoromethane (Freon 12)	0.36	0.035		1.8	0.17		0.702	9/24/15 4:53	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 4:53	TPH
1,2-Dichloroethane	0.045	0.035		0.18	0.14		0.702	9/24/15 4:53	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:53	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:53	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 4:53	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 4:53	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 4:53	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 4:53	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 4:53	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 4:53	TPH
Ethanol	230	1.4		440	2.6		0.702	9/24/15 4:53	TPH
Ethyl Acetate	0.30	0.035		1.1	0.13		0.702	9/24/15 4:53	TPH
Ethylbenzene	0.068	0.035		0.30	0.15		0.702	9/24/15 4:53	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 4:53	TPH
Heptane	0.062	0.035		0.25	0.14		0.702	9/24/15 4:53	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 4:53	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: IA-7-091615
Sample ID: 1510764-07
 Sample Matrix: Indoor air
 Sampled: 9/16/2015 09:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1204
 Canister Size: 6 liter
 Flow Controller ID: 4200
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -3.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 4:53	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 4:53	TPH
Isopropanol	12	1.4	L-05, V-06	30	3.4	0.702	9/24/15 4:53	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 4:53	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 4:53	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	9/24/15 4:53	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 4:53	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 4:53	TPH
Styrene	0.065	0.035		0.27	0.15	0.702	9/24/15 4:53	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 4:53	TPH
Tetrachloroethylene	ND	0.035		ND	0.24	0.702	9/24/15 4:53	TPH
Tetrahydrofuran	0.038	0.035		0.11	0.10	0.702	9/24/15 4:53	TPH
Toluene	0.55	0.035		2.1	0.13	0.702	9/24/15 4:53	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 4:53	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 4:53	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 4:53	TPH
Trichloroethylene	0.057	0.035		0.31	0.19	0.702	9/24/15 4:53	TPH
Trichlorofluoromethane (Freon 11)	0.23	0.14		1.3	0.79	0.702	9/24/15 4:53	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 4:53	TPH
1,2,4-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 4:53	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 4:53	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 4:53	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 4:53	TPH
m&p-Xylene	0.15	0.070		0.64	0.30	0.702	9/24/15 4:53	TPH
o-Xylene	0.053	0.035		0.23	0.15	0.702	9/24/15 4:53	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	9/24/15 4:53



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: AA-1-091615
Sample ID: 1510764-08
 Sample Matrix: Ambient Air
 Sampled: 9/16/2015 08:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1749
 Canister Size: 6 liter
 Flow Controller ID: 4213
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	5.3	1.4	L-05	13	3.3		0.702	9/24/15 5:38	TPH
Benzene	0.26	0.035		0.82	0.11		0.702	9/24/15 5:38	TPH
Benzyl chloride	ND	0.035		ND	0.18		0.702	9/24/15 5:38	TPH
Bromodichloromethane	ND	0.035		ND	0.24		0.702	9/24/15 5:38	TPH
Bromoform	ND	0.035		ND	0.36		0.702	9/24/15 5:38	TPH
Bromomethane	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
1,3-Butadiene	0.081	0.035		0.18	0.078		0.702	9/24/15 5:38	TPH
2-Butanone (MEK)	ND	1.4		ND	4.1		0.702	9/24/15 5:38	TPH
Carbon Disulfide	ND	0.35		ND	1.1		0.702	9/24/15 5:38	TPH
Carbon Tetrachloride	0.068	0.035		0.43	0.22		0.702	9/24/15 5:38	TPH
Chlorobenzene	ND	0.035		ND	0.16		0.702	9/24/15 5:38	TPH
Chloroethane	ND	0.035		ND	0.093		0.702	9/24/15 5:38	TPH
Chloroform	0.037	0.035		0.18	0.17		0.702	9/24/15 5:38	TPH
Chloromethane	0.52	0.070		1.1	0.14		0.702	9/24/15 5:38	TPH
Cyclohexane	ND	0.035		ND	0.12		0.702	9/24/15 5:38	TPH
Dibromochloromethane	ND	0.035		ND	0.30		0.702	9/24/15 5:38	TPH
1,2-Dibromoethane (EDB)	ND	0.035		ND	0.27		0.702	9/24/15 5:38	TPH
1,2-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 5:38	TPH
1,3-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 5:38	TPH
1,4-Dichlorobenzene	ND	0.035		ND	0.21		0.702	9/24/15 5:38	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.035		1.7	0.17		0.702	9/24/15 5:38	TPH
1,1-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
1,2-Dichloroethane	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
1,1-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
cis-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
trans-1,2-Dichloroethylene	ND	0.035		ND	0.14		0.702	9/24/15 5:38	TPH
1,2-Dichloropropane	ND	0.035		ND	0.16		0.702	9/24/15 5:38	TPH
cis-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 5:38	TPH
trans-1,3-Dichloropropene	ND	0.035		ND	0.16		0.702	9/24/15 5:38	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035		ND	0.25		0.702	9/24/15 5:38	TPH
1,4-Dioxane	ND	0.35		ND	1.3		0.702	9/24/15 5:38	TPH
Ethanol	6.3	1.4		12	2.6		0.702	9/24/15 5:38	TPH
Ethyl Acetate	0.19	0.035		0.68	0.13		0.702	9/24/15 5:38	TPH
Ethylbenzene	0.086	0.035		0.37	0.15		0.702	9/24/15 5:38	TPH
4-Ethyltoluene	ND	0.035		ND	0.17		0.702	9/24/15 5:38	TPH
Heptane	0.094	0.035		0.39	0.14		0.702	9/24/15 5:38	TPH
Hexachlorobutadiene	ND	0.035		ND	0.37		0.702	9/24/15 5:38	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: AA-1-091615
Sample ID: 1510764-08
 Sample Matrix: Ambient Air
 Sampled: 9/16/2015 08:45

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1749
 Canister Size: 6 liter
 Flow Controller ID: 4213
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	1.4		ND	4.9	0.702	9/24/15 5:38	TPH
2-Hexanone (MBK)	ND	0.035		ND	0.14	0.702	9/24/15 5:38	TPH
Isopropanol	ND	1.4		ND	3.4	0.702	9/24/15 5:38	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.035		ND	0.13	0.702	9/24/15 5:38	TPH
Methylene Chloride	ND	0.35		ND	1.2	0.702	9/24/15 5:38	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035		ND	0.14	0.702	9/24/15 5:38	TPH
Naphthalene	ND	0.035	V-05	ND	0.18	0.702	9/24/15 5:38	TPH
Propene	ND	1.4		ND	2.4	0.702	9/24/15 5:38	TPH
Styrene	ND	0.035		ND	0.15	0.702	9/24/15 5:38	TPH
1,1,2,2-Tetrachloroethane	ND	0.035		ND	0.24	0.702	9/24/15 5:38	TPH
Tetrachloroethylene	0.051	0.035		0.35	0.24	0.702	9/24/15 5:38	TPH
Tetrahydrofuran	ND	0.035		ND	0.10	0.702	9/24/15 5:38	TPH
Toluene	0.77	0.035		2.9	0.13	0.702	9/24/15 5:38	TPH
1,2,4-Trichlorobenzene	ND	0.035		ND	0.26	0.702	9/24/15 5:38	TPH
1,1,1-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 5:38	TPH
1,1,2-Trichloroethane	ND	0.035		ND	0.19	0.702	9/24/15 5:38	TPH
Trichloroethylene	0.20	0.035		1.1	0.19	0.702	9/24/15 5:38	TPH
Trichlorofluoromethane (Freon 11)	0.22	0.14		1.2	0.79	0.702	9/24/15 5:38	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14		ND	1.1	0.702	9/24/15 5:38	TPH
1,2,4-Trimethylbenzene	0.060	0.035		0.29	0.17	0.702	9/24/15 5:38	TPH
1,3,5-Trimethylbenzene	ND	0.035		ND	0.17	0.702	9/24/15 5:38	TPH
Vinyl Acetate	ND	0.70		ND	2.5	0.702	9/24/15 5:38	TPH
Vinyl Chloride	ND	0.035		ND	0.090	0.702	9/24/15 5:38	TPH
m&p-Xylene	0.27	0.070		1.2	0.30	0.702	9/24/15 5:38	TPH
o-Xylene	0.093	0.035		0.40	0.15	0.702	9/24/15 5:38	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	9/24/15 5:38

ANALYTICAL RESULTS

Project Location: Textron Gorham
Date Received: 9/16/2015
Field Sample #: EW-5-091615
Sample ID: 1510764-09
Sample Matrix: Sub Slab
Sampled: 9/16/2015 08:06

Sample Description/Location:
Sub Description/Location:
Canister ID: 1930
Canister Size: 6 liter
Flow Controller ID: 4295
Sample Type: 30 min

Work Order: 1510764
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -5.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Acetone	230	20		550	48	10	9/25/15 15:07	TPH
Benzene	0.92	0.50		2.9	1.6	10	9/25/15 15:07	TPH
Benzyl chloride	ND	0.50		ND	2.6	10	9/25/15 15:07	TPH
Bromodichloromethane	ND	0.50		ND	3.4	10	9/25/15 15:07	TPH
Bromoform	ND	0.50		ND	5.2	10	9/25/15 15:07	TPH
Bromomethane	ND	0.50	L-03	ND	1.9	10	9/25/15 15:07	TPH
1,3-Butadiene	ND	0.50		ND	1.1	10	9/25/15 15:07	TPH
2-Butanone (MEK)	2400	120		7100	350	60	9/24/15 6:55	TPH
Carbon Disulfide	18	5.0		56	16	10	9/25/15 15:07	TPH
Carbon Tetrachloride	ND	0.50		ND	3.1	10	9/25/15 15:07	TPH
Chlorobenzene	ND	0.50		ND	2.3	10	9/25/15 15:07	TPH
Chloroethane	ND	0.50		ND	1.3	10	9/25/15 15:07	TPH
Chloroform	ND	0.50		ND	2.4	10	9/25/15 15:07	TPH
Chloromethane	ND	1.0		ND	2.1	10	9/25/15 15:07	TPH
Cyclohexane	ND	0.50		ND	1.7	10	9/25/15 15:07	TPH
Dibromochloromethane	ND	0.50		ND	4.3	10	9/25/15 15:07	TPH
1,2-Dibromoethane (EDB)	ND	0.50		ND	3.8	10	9/25/15 15:07	TPH
1,2-Dichlorobenzene	ND	0.50		ND	3.0	10	9/25/15 15:07	TPH
1,3-Dichlorobenzene	ND	0.50		ND	3.0	10	9/25/15 15:07	TPH
1,4-Dichlorobenzene	ND	0.50		ND	3.0	10	9/25/15 15:07	TPH
Dichlorodifluoromethane (Freon 12)	ND	0.50		ND	2.5	10	9/25/15 15:07	TPH
1,1-Dichloroethane	1.7	0.50		6.9	2.0	10	9/25/15 15:07	TPH
1,2-Dichloroethane	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
1,1-Dichloroethylene	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
cis-1,2-Dichloroethylene	1.0	0.50		4.0	2.0	10	9/25/15 15:07	TPH
trans-1,2-Dichloroethylene	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
1,2-Dichloropropane	ND	0.50		ND	2.3	10	9/25/15 15:07	TPH
cis-1,3-Dichloropropene	ND	0.50		ND	2.3	10	9/25/15 15:07	TPH
trans-1,3-Dichloropropene	ND	0.50		ND	2.3	10	9/25/15 15:07	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.50		ND	3.5	10	9/25/15 15:07	TPH
1,4-Dioxane	ND	5.0		ND	18	10	9/25/15 15:07	TPH
Ethanol	ND	20		ND	38	10	9/25/15 15:07	TPH
Ethyl Acetate	ND	0.50		ND	1.8	10	9/25/15 15:07	TPH
Ethylbenzene	ND	0.50		ND	2.2	10	9/25/15 15:07	TPH
4-Ethyltoluene	ND	0.50		ND	2.5	10	9/25/15 15:07	TPH
Heptane	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
Hexachlorobutadiene	ND	0.50		ND	5.3	10	9/25/15 15:07	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: EW-5-091615
Sample ID: 1510764-09
 Sample Matrix: Sub Slab
 Sampled: 9/16/2015 08:06

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1930
 Canister Size: 6 liter
 Flow Controller ID: 4295
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -5.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	20		ND	70	10	9/25/15 15:07	TPH
2-Hexanone (MBK)	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
Isopropanol	ND	20		ND	49	10	9/25/15 15:07	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.50		ND	1.8	10	9/25/15 15:07	TPH
Methylene Chloride	ND	5.0		ND	17	10	9/25/15 15:07	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.50		ND	2.0	10	9/25/15 15:07	TPH
Naphthalene	ND	0.50	V-05	ND	2.6	10	9/25/15 15:07	TPH
Propene	ND	20		ND	34	10	9/25/15 15:07	TPH
Styrene	ND	0.50		ND	2.1	10	9/25/15 15:07	TPH
1,1,2,2-Tetrachloroethane	ND	0.50		ND	3.4	10	9/25/15 15:07	TPH
Tetrachloroethylene	0.83	0.50		5.6	3.4	10	9/25/15 15:07	TPH
Tetrahydrofuran	2100	3.0		6100	8.8	60	9/24/15 6:55	TPH
Toluene	ND	0.50		ND	1.9	10	9/25/15 15:07	TPH
1,2,4-Trichlorobenzene	ND	0.50		ND	3.7	10	9/25/15 15:07	TPH
1,1,1-Trichloroethane	10	0.50		55	2.7	10	9/25/15 15:07	TPH
1,1,2-Trichloroethane	ND	0.50		ND	2.7	10	9/25/15 15:07	TPH
Trichloroethylene	30	0.50		160	2.7	10	9/25/15 15:07	TPH
Trichlorofluoromethane (Freon 11)	ND	2.0		ND	11	10	9/25/15 15:07	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	2.0		ND	15	10	9/25/15 15:07	TPH
1,2,4-Trimethylbenzene	ND	0.50		ND	2.5	10	9/25/15 15:07	TPH
1,3,5-Trimethylbenzene	ND	0.50		ND	2.5	10	9/25/15 15:07	TPH
Vinyl Acetate	ND	10		ND	35	10	9/25/15 15:07	TPH
Vinyl Chloride	ND	0.50		ND	1.3	10	9/25/15 15:07	TPH
m&p-Xylene	ND	1.0		ND	4.3	10	9/25/15 15:07	TPH
o-Xylene	ND	0.50		ND	2.2	10	9/25/15 15:07	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	9/24/15 6:55
4-Bromofluorobenzene (1)	102	70-130	9/25/15 15:07



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: EW-6-091615
Sample ID: 1510764-10
 Sample Matrix: Sub Slab
 Sampled: 9/16/2015 09:51

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1238
 Canister Size: 6 liter
 Flow Controller ID: 4299
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag/Qual	Results	RL				
Acetone	18	8.0	L-05	44	19		4	9/24/15 7:33	TPH
Benzene	ND	0.20		ND	0.64		4	9/24/15 7:33	TPH
Benzyl chloride	ND	0.20		ND	1.0		4	9/24/15 7:33	TPH
Bromodichloromethane	ND	0.20		ND	1.3		4	9/24/15 7:33	TPH
Bromoform	ND	0.20		ND	2.1		4	9/24/15 7:33	TPH
Bromomethane	ND	0.20		ND	0.78		4	9/24/15 7:33	TPH
1,3-Butadiene	ND	0.20		ND	0.44		4	9/24/15 7:33	TPH
2-Butanone (MEK)	ND	8.0		ND	24		4	9/24/15 7:33	TPH
Carbon Disulfide	6.2	2.0		19	6.2		4	9/24/15 7:33	TPH
Carbon Tetrachloride	ND	0.20		ND	1.3		4	9/24/15 7:33	TPH
Chlorobenzene	ND	0.20		ND	0.92		4	9/24/15 7:33	TPH
Chloroethane	ND	0.20		ND	0.53		4	9/24/15 7:33	TPH
Chloroform	ND	0.20		ND	0.98		4	9/24/15 7:33	TPH
Chloromethane	1.6	0.40		3.3	0.83		4	9/24/15 7:33	TPH
Cyclohexane	ND	0.20		ND	0.69		4	9/24/15 7:33	TPH
Dibromochloromethane	ND	0.20		ND	1.7		4	9/24/15 7:33	TPH
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5		4	9/24/15 7:33	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2		4	9/24/15 7:33	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2		4	9/24/15 7:33	TPH
1,4-Dichlorobenzene	ND	0.20		ND	1.2		4	9/24/15 7:33	TPH
Dichlorodifluoromethane (Freon 12)	0.56	0.20		2.7	0.99		4	9/24/15 7:33	TPH
1,1-Dichloroethane	0.26	0.20		1.1	0.81		4	9/24/15 7:33	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81		4	9/24/15 7:33	TPH
1,1-Dichloroethylene	ND	0.20		ND	0.79		4	9/24/15 7:33	TPH
cis-1,2-Dichloroethylene	ND	0.20		ND	0.79		4	9/24/15 7:33	TPH
trans-1,2-Dichloroethylene	ND	0.20		ND	0.79		4	9/24/15 7:33	TPH
1,2-Dichloropropane	ND	0.20		ND	0.92		4	9/24/15 7:33	TPH
cis-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/24/15 7:33	TPH
trans-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/24/15 7:33	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4		4	9/24/15 7:33	TPH
1,4-Dioxane	ND	2.0		ND	7.2		4	9/24/15 7:33	TPH
Ethanol	15	8.0		28	15		4	9/24/15 7:33	TPH
Ethyl Acetate	ND	0.20		ND	0.72		4	9/24/15 7:33	TPH
Ethylbenzene	ND	0.20		ND	0.87		4	9/24/15 7:33	TPH
4-Ethyltoluene	ND	0.20		ND	0.98		4	9/24/15 7:33	TPH
Heptane	ND	0.20		ND	0.82		4	9/24/15 7:33	TPH
Hexachlorobutadiene	ND	0.20		ND	2.1		4	9/24/15 7:33	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: EW-6-091615
Sample ID: 1510764-10
 Sample Matrix: Sub Slab
 Sampled: 9/16/2015 09:51

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1238
 Canister Size: 6 liter
 Flow Controller ID: 4299
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -5
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	8.0		ND	28	4	9/24/15 7:33	TPH
2-Hexanone (MBK)	ND	0.20		ND	0.82	4	9/24/15 7:33	TPH
Isopropanol	ND	8.0		ND	20	4	9/24/15 7:33	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/24/15 7:33	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	9/24/15 7:33	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/24/15 7:33	TPH
Naphthalene	ND	0.20	V-05	ND	1.0	4	9/24/15 7:33	TPH
Propene	ND	8.0		ND	14	4	9/24/15 7:33	TPH
Styrene	ND	0.20		ND	0.85	4	9/24/15 7:33	TPH
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/24/15 7:33	TPH
Tetrachloroethylene	ND	0.20		ND	1.4	4	9/24/15 7:33	TPH
Tetrahydrofuran	59	0.20		170	0.59	4	9/24/15 7:33	TPH
Toluene	0.24	0.20		0.92	0.75	4	9/24/15 7:33	TPH
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/24/15 7:33	TPH
1,1,1-Trichloroethane	1.1	0.20		5.9	1.1	4	9/24/15 7:33	TPH
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/24/15 7:33	TPH
Trichloroethylene	0.45	0.20		2.4	1.1	4	9/24/15 7:33	TPH
Trichlorofluoromethane (Freon 11)	ND	0.80		ND	4.5	4	9/24/15 7:33	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/24/15 7:33	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 7:33	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 7:33	TPH
Vinyl Acetate	ND	4.0		ND	14	4	9/24/15 7:33	TPH
Vinyl Chloride	ND	0.20		ND	0.51	4	9/24/15 7:33	TPH
m&p-Xylene	ND	0.40		ND	1.7	4	9/24/15 7:33	TPH
o-Xylene	ND	0.20		ND	0.87	4	9/24/15 7:33	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/24/15 7:33



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: EW-7-091615
Sample ID: 1510764-11
 Sample Matrix: Sub Slab
 Sampled: 9/16/2015 09:42

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1745
 Canister Size: 6 liter
 Flow Controller ID: 4301
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.4
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Acetone	ND	8.0		ND	19	4	9/24/15 8:51	TPH
Benzene	0.73	0.20		2.3	0.64	4	9/24/15 8:51	TPH
Benzyl chloride	ND	0.20		ND	1.0	4	9/24/15 8:51	TPH
Bromodichloromethane	ND	0.20		ND	1.3	4	9/24/15 8:51	TPH
Bromoform	ND	0.20		ND	2.1	4	9/24/15 8:51	TPH
Bromomethane	ND	0.20		ND	0.78	4	9/24/15 8:51	TPH
1,3-Butadiene	ND	0.20		ND	0.44	4	9/24/15 8:51	TPH
2-Butanone (MEK)	ND	8.0		ND	24	4	9/24/15 8:51	TPH
Carbon Disulfide	ND	2.0		ND	6.2	4	9/24/15 8:51	TPH
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/24/15 8:51	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	9/24/15 8:51	TPH
Chloroethane	ND	0.20		ND	0.53	4	9/24/15 8:51	TPH
Chloroform	0.85	0.20		4.1	0.98	4	9/24/15 8:51	TPH
Chloromethane	ND	0.40		ND	0.83	4	9/24/15 8:51	TPH
Cyclohexane	ND	0.20		ND	0.69	4	9/24/15 8:51	TPH
Dibromochloromethane	ND	0.20		ND	1.7	4	9/24/15 8:51	TPH
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/24/15 8:51	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 8:51	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 8:51	TPH
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 8:51	TPH
Dichlorodifluoromethane (Freon 12)	0.58	0.20		2.9	0.99	4	9/24/15 8:51	TPH
1,1-Dichloroethane	4.0	0.20		16	0.81	4	9/24/15 8:51	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/24/15 8:51	TPH
1,1-Dichloroethylene	ND	0.20		ND	0.79	4	9/24/15 8:51	TPH
cis-1,2-Dichloroethylene	2.3	0.20		9.1	0.79	4	9/24/15 8:51	TPH
trans-1,2-Dichloroethylene	5.6	0.20		22	0.79	4	9/24/15 8:51	TPH
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/24/15 8:51	TPH
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/24/15 8:51	TPH
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/24/15 8:51	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/24/15 8:51	TPH
1,4-Dioxane	ND	2.0		ND	7.2	4	9/24/15 8:51	TPH
Ethanol	50	8.0		93	15	4	9/24/15 8:51	TPH
Ethyl Acetate	ND	0.20		ND	0.72	4	9/24/15 8:51	TPH
Ethylbenzene	ND	0.20		ND	0.87	4	9/24/15 8:51	TPH
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/24/15 8:51	TPH
Heptane	ND	0.20		ND	0.82	4	9/24/15 8:51	TPH
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/24/15 8:51	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham
 Date Received: 9/16/2015
Field Sample #: EW-7-091615
Sample ID: 1510764-11
 Sample Matrix: Sub Slab
 Sampled: 9/16/2015 09:42

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1745
 Canister Size: 6 liter
 Flow Controller ID: 4301
 Sample Type: 30 min

Work Order: 1510764
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.4
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	8.0		ND	28	4	9/24/15 8:51	TPH
2-Hexanone (MBK)	ND	0.20		ND	0.82	4	9/24/15 8:51	TPH
Isopropanol	8.8	8.0	L-05, V-06	22	20	4	9/24/15 8:51	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/24/15 8:51	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	9/24/15 8:51	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/24/15 8:51	TPH
Naphthalene	ND	0.20	V-05	ND	1.0	4	9/24/15 8:51	TPH
Propene	ND	8.0		ND	14	4	9/24/15 8:51	TPH
Styrene	ND	0.20		ND	0.85	4	9/24/15 8:51	TPH
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/24/15 8:51	TPH
Tetrachloroethylene	57	0.20		390	1.4	4	9/24/15 8:51	TPH
Tetrahydrofuran	1.2	0.20		3.5	0.59	4	9/24/15 8:51	TPH
Toluene	ND	0.20		ND	0.75	4	9/24/15 8:51	TPH
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/24/15 8:51	TPH
1,1,1-Trichloroethane	12	0.20		63	1.1	4	9/24/15 8:51	TPH
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/24/15 8:51	TPH
Trichloroethylene	110	0.20		610	1.1	4	9/24/15 8:51	TPH
Trichlorofluoromethane (Freon 11)	330	12		1900	67	60	9/24/15 9:30	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/24/15 8:51	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 8:51	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 8:51	TPH
Vinyl Acetate	ND	4.0		ND	14	4	9/24/15 8:51	TPH
Vinyl Chloride	ND	0.20		ND	0.51	4	9/24/15 8:51	TPH
m&p-Xylene	ND	0.40		ND	1.7	4	9/24/15 8:51	TPH
o-Xylene	ND	0.20		ND	0.87	4	9/24/15 8:51	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.8	70-130	9/24/15 9:30
4-Bromofluorobenzene (1)	101	70-130	9/24/15 8:51



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ANALYTICAL RESULTS

Project Location: Textron Gorham

Date Received: 9/16/2015

Field Sample #: EW-Combined-091615

Sample ID: 1510764-12

Sample Matrix: Sub Slab

Sampled: 9/16/2015 08:42

Sample Description/Location:

Sub Description/Location:

Canister ID: 1869

Canister Size: 6 liter

Flow Controller ID: 4212

Sample Type: 30 min

Work Order: 1510764

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -4

Receipt Vacuum(in Hg): -3.7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Acetone	ND	8.0		ND	19	4	9/24/15 10:09	TPH
Benzene	ND	0.20		ND	0.64	4	9/24/15 10:09	TPH
Benzyl chloride	ND	0.20		ND	1.0	4	9/24/15 10:09	TPH
Bromodichloromethane	ND	0.20		ND	1.3	4	9/24/15 10:09	TPH
Bromoform	ND	0.20		ND	2.1	4	9/24/15 10:09	TPH
Bromomethane	ND	0.20		ND	0.78	4	9/24/15 10:09	TPH
1,3-Butadiene	ND	0.20		ND	0.44	4	9/24/15 10:09	TPH
2-Butanone (MEK)	ND	8.0		ND	24	4	9/24/15 10:09	TPH
Carbon Disulfide	ND	2.0		ND	6.2	4	9/24/15 10:09	TPH
Carbon Tetrachloride	ND	0.20		ND	1.3	4	9/24/15 10:09	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	9/24/15 10:09	TPH
Chloroethane	1.0	0.20		2.7	0.53	4	9/24/15 10:09	TPH
Chloroform	0.84	0.20		4.1	0.98	4	9/24/15 10:09	TPH
Chloromethane	ND	0.40		ND	0.83	4	9/24/15 10:09	TPH
Cyclohexane	ND	0.20		ND	0.69	4	9/24/15 10:09	TPH
Dibromochloromethane	ND	0.20		ND	1.7	4	9/24/15 10:09	TPH
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5	4	9/24/15 10:09	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 10:09	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 10:09	TPH
1,4-Dichlorobenzene	ND	0.20		ND	1.2	4	9/24/15 10:09	TPH
Dichlorodifluoromethane (Freon 12)	0.53	0.20		2.6	0.99	4	9/24/15 10:09	TPH
1,1-Dichloroethane	47	0.20		190	0.81	4	9/24/15 10:09	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	9/24/15 10:09	TPH
1,1-Dichloroethylene	41	0.20		160	0.79	4	9/24/15 10:09	TPH
cis-1,2-Dichloroethylene	10	0.20		41	0.79	4	9/24/15 10:09	TPH
trans-1,2-Dichloroethylene	0.24	0.20		0.97	0.79	4	9/24/15 10:09	TPH
1,2-Dichloropropane	ND	0.20		ND	0.92	4	9/24/15 10:09	TPH
cis-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/24/15 10:09	TPH
trans-1,3-Dichloropropene	ND	0.20		ND	0.91	4	9/24/15 10:09	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20		ND	1.4	4	9/24/15 10:09	TPH
1,4-Dioxane	ND	2.0		ND	7.2	4	9/24/15 10:09	TPH
Ethanol	10	8.0		20	15	4	9/24/15 10:09	TPH
Ethyl Acetate	ND	0.20		ND	0.72	4	9/24/15 10:09	TPH
Ethylbenzene	ND	0.20		ND	0.87	4	9/24/15 10:09	TPH
4-Ethyltoluene	ND	0.20		ND	0.98	4	9/24/15 10:09	TPH
Heptane	ND	0.20		ND	0.82	4	9/24/15 10:09	TPH
Hexachlorobutadiene	ND	0.20		ND	2.1	4	9/24/15 10:09	TPH



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ANALYTICAL RESULTS

Project Location: Textron Gorham

Date Received: 9/16/2015

Field Sample #: EW-Combined-091615

Sample ID: 1510764-12

Sample Matrix: Sub Slab

Sampled: 9/16/2015 08:42

Sample Description/Location:

Sub Description/Location:

Canister ID: 1869

Canister Size: 6 liter

Flow Controller ID: 4212

Sample Type: 30 min

Work Order: 1510764

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -4

Receipt Vacuum(in Hg): -3.7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv		ug/m3		Dilution	Date/Time Analyzed	Analyst	
	Results	RL	Flag/Qual	Results	RL			
Hexane	ND	8.0		ND	28	4	9/24/15 10:09	TPH
2-Hexanone (MBK)	ND	0.20		ND	0.82	4	9/24/15 10:09	TPH
Isopropanol	ND	8.0		ND	20	4	9/24/15 10:09	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	9/24/15 10:09	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	9/24/15 10:09	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82	4	9/24/15 10:09	TPH
Naphthalene	ND	0.20	V-05	ND	1.0	4	9/24/15 10:09	TPH
Propene	ND	8.0		ND	14	4	9/24/15 10:09	TPH
Styrene	ND	0.20		ND	0.85	4	9/24/15 10:09	TPH
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4	4	9/24/15 10:09	TPH
Tetrachloroethylene	9.4	0.20		63	1.4	4	9/24/15 10:09	TPH
Tetrahydrofuran	ND	0.20		ND	0.59	4	9/24/15 10:09	TPH
Toluene	0.31	0.20		1.2	0.75	4	9/24/15 10:09	TPH
1,2,4-Trichlorobenzene	ND	0.20		ND	1.5	4	9/24/15 10:09	TPH
1,1,1-Trichloroethane	1400	3.0		7700	16	60	9/24/15 10:48	TPH
1,1,2-Trichloroethane	ND	0.20		ND	1.1	4	9/24/15 10:09	TPH
Trichloroethylene	350	3.0		1900	16	60	9/24/15 10:48	TPH
Trichlorofluoromethane (Freon 11)	60	0.80		340	4.5	4	9/24/15 10:09	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80		ND	6.1	4	9/24/15 10:09	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 10:09	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	9/24/15 10:09	TPH
Vinyl Acetate	ND	4.0		ND	14	4	9/24/15 10:09	TPH
Vinyl Chloride	0.20	0.20		0.51	0.51	4	9/24/15 10:09	TPH
m&p-Xylene	ND	0.40		ND	1.7	4	9/24/15 10:09	TPH
o-Xylene	ND	0.20		ND	0.87	4	9/24/15 10:09	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/24/15 10:48
4-Bromofluorobenzene (1)	102	70-130	9/24/15 10:09



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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
15I0764-01 [IA-1-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-02 [IA-2-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-03 [IA-3-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-04 [IA-4-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-05 [IA-5-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-06 [IA-6-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-07 [IA-7-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-08 [AA-1-091615]	B131554	1.5	1	N/A	1000	400	855	09/23/15
15I0764-09RE1 [EW-5-091615]	B131554	1.5	1	N/A	1000	400	10	09/23/15
15I0764-10 [EW-6-091615]	B131554	1.5	1	N/A	1000	400	150	09/23/15
15I0764-11 [EW-7-091615]	B131554	1.5	1	N/A	1000	400	150	09/23/15
15I0764-11RE1 [EW-7-091615]	B131554	1.5	1	N/A	1000	400	10	09/23/15
15I0764-12 [EW-Combined-091615]	B131554	1.5	1	N/A	1000	400	150	09/23/15
15I0764-12RE1 [EW-Combined-091615]	B131554	1.5	1	N/A	1000	400	10	09/23/15

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
15I0764-09 [EW-5-091615]	B131555	1.5	1	N/A	1000	400	60	09/24/15



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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/Qual
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Batch B131554 - TO-15 Prep**Blank (B131554-BLK1)**

Prepared & Analyzed: 09/23/15

Acetone	ND	1.4
Benzene	ND	0.035
Benzyl chloride	ND	0.035
Bromodichloromethane	ND	0.035
Bromoform	ND	0.035
Bromomethane	ND	0.035
1,3-Butadiene	ND	0.035
2-Butanone (MEK)	ND	1.4
Carbon Disulfide	ND	0.35
Carbon Tetrachloride	ND	0.035
Chlorobenzene	ND	0.035
Chloroethane	ND	0.035
Chloroform	ND	0.035
Chloromethane	ND	0.070
Cyclohexane	ND	0.035
Dibromochloromethane	ND	0.035
1,2-Dibromoethane (EDB)	ND	0.035
1,2-Dichlorobenzene	ND	0.035
1,3-Dichlorobenzene	ND	0.035
1,4-Dichlorobenzene	ND	0.035
Dichlorodifluoromethane (Freon 12)	ND	0.035
1,1-Dichloroethane	ND	0.035
1,2-Dichloroethane	ND	0.035
1,1-Dichloroethylene	ND	0.035
cis-1,2-Dichloroethylene	ND	0.035
trans-1,2-Dichloroethylene	ND	0.035
1,2-Dichloropropane	ND	0.035
cis-1,3-Dichloropropene	ND	0.035
trans-1,3-Dichloropropene	ND	0.035
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.035
1,4-Dioxane	ND	0.35
Ethanol	ND	1.4
Ethyl Acetate	ND	0.035
Ethylbenzene	ND	0.035
4-Ethyltoluene	ND	0.035
Heptane	ND	0.035
Hexachlorobutadiene	ND	0.035
Hexane	ND	1.4
2-Hexanone (MBK)	ND	0.035
Isopropanol	ND	1.4
Methyl tert-Butyl Ether (MTBE)	ND	0.035
Methylene Chloride	ND	0.35
4-Methyl-2-pentanone (MIBK)	ND	0.035
Naphthalene	ND	0.035
Propene	ND	1.4
Styrene	ND	0.035

V-05



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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	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B131554 - TO-15 Prep

Blank (B131554-BLK1)	Prepared & Analyzed: 09/23/15									
1,1,2,2-Tetrachloroethane	ND	0.035								
Tetrachloroethylene	ND	0.035								
Tetrahydrofuran	ND	0.035								
Toluene	ND	0.035								
1,2,4-Trichlorobenzene	ND	0.035								
1,1,1-Trichloroethane	ND	0.035								
1,1,2-Trichloroethane	ND	0.035								
Trichloroethylene	ND	0.035								
Trichlorofluoromethane (Freon 11)	ND	0.14								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14								
1,2,4-Trimethylbenzene	ND	0.035								
1,3,5-Trimethylbenzene	ND	0.035								
Vinyl Acetate	ND	0.70								
Vinyl Chloride	ND	0.035								
m&p-Xylene	ND	0.070								
o-Xylene	ND	0.035								
<i>Surrogate: 4-Bromofluorobenzene (I)</i>	<i>8.09</i>		<i>8.00</i>		<i>101</i>		<i>70-130</i>			

LCS (B131554-BS1)	Prepared & Analyzed: 09/23/15									
Acetone	6.54		5.00		131	*	70-130			L-05
Benzene	4.71		5.00		94.2		70-130			
Benzyl chloride	4.86		5.00		97.2		70-130			
Bromodichloromethane	5.28		5.00		106		70-130			
Bromoform	5.46		5.00		109		70-130			
Bromomethane	4.34		5.00		86.8		70-130			
1,3-Butadiene	5.11		5.00		102		70-130			
2-Butanone (MEK)	4.64		5.00		92.7		70-130			
Carbon Disulfide	5.32		5.00		106		70-130			
Carbon Tetrachloride	5.09		5.00		102		70-130			
Chlorobenzene	5.12		5.00		102		70-130			
Chloroethane	5.27		5.00		105		70-130			
Chloroform	5.28		5.00		106		70-130			
Chloromethane	4.93		5.00		98.5		70-130			
Cyclohexane	4.91		5.00		98.2		70-130			
Dibromochloromethane	5.22		5.00		104		70-130			
1,2-Dibromoethane (EDB)	5.27		5.00		105		70-130			
1,2-Dichlorobenzene	5.09		5.00		102		70-130			
1,3-Dichlorobenzene	5.19		5.00		104		70-130			
1,4-Dichlorobenzene	4.97		5.00		99.4		70-130			
Dichlorodifluoromethane (Freon 12)	5.60		5.00		112		70-130			
1,1-Dichloroethane	5.24		5.00		105		70-130			
1,2-Dichloroethane	5.15		5.00		103		70-130			
1,1-Dichloroethylene	5.39		5.00		108		70-130			
cis-1,2-Dichloroethylene	5.19		5.00		104		70-130			
trans-1,2-Dichloroethylene	5.01		5.00		100		70-130			
1,2-Dichloropropane	5.16		5.00		103		70-130			



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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	Limit	Flag/Qual
Batch B131554 - TO-15 Prep											
LCS (B131554-BS1)											
Prepared & Analyzed: 09/23/15											
cis-1,3-Dichloropropene	5.31		5.00		106	70-130					
trans-1,3-Dichloropropene	4.79		5.00		95.8	70-130					
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	4.65		5.00		93.0	70-130					
1,4-Dioxane	5.40		5.00		108	70-130					
Ethanol	6.12		5.00		122	70-130					
Ethyl Acetate	4.84		5.00		96.9	70-130					
Ethylbenzene	5.03		5.00		101	70-130					
4-Ethyltoluene	5.02		5.00		100	70-130					
Heptane	5.25		5.00		105	70-130					
Hexachlorobutadiene	5.39		5.00		108	70-130					
Hexane	5.09		5.00		102	70-130					
2-Hexanone (MBK)	4.74		5.00		94.9	70-130					
Isopropanol	7.03		5.00		141 *	70-130					L-05, V-06
Methyl tert-Butyl Ether (MTBE)	4.57		5.00		91.4	70-130					
Methylene Chloride	5.13		5.00		103	70-130					
4-Methyl-2-pentanone (MIBK)	4.91		5.00		98.1	70-130					
Naphthalene	4.55		5.00		90.9	70-130					V-05
Propene	4.79		5.00		95.9	70-130					
Styrene	5.13		5.00		103	70-130					
1,1,2,2-Tetrachloroethane	5.54		5.00		111	70-130					
Tetrachloroethylene	5.16		5.00		103	70-130					
Tetrahydrofuran	4.95		5.00		98.9	70-130					
Toluene	5.10		5.00		102	70-130					
1,2,4-Trichlorobenzene	5.44		5.00		109	70-130					
1,1,1-Trichloroethane	4.85		5.00		97.0	70-130					
1,1,2-Trichloroethane	5.38		5.00		108	70-130					
Trichloroethylene	5.15		5.00		103	70-130					
Trichlorofluoromethane (Freon 11)	5.22		5.00		104	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.82		5.00		116	70-130					
1,2,4-Trimethylbenzene	5.11		5.00		102	70-130					
1,3,5-Trimethylbenzene	5.13		5.00		103	70-130					
Vinyl Acetate	5.02		5.00		100	70-130					
Vinyl Chloride	4.98		5.00		99.6	70-130					
m&p-Xylene	11.2		10.0		112	70-130					
o-Xylene	4.99		5.00		99.7	70-130					
<i>Surrogate: 4-Bromofluorobenzene (I)</i>	8.12		8.00		102	70-130					



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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	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B131554 - TO-15 Prep

Duplicate (B131554-DUP1)	Source: 1510764-10				Prepared: 09/23/15 Analyzed: 09/24/15						
Acetone	18	8.0	43	19		18			1.01	25	L-05
Benzene	ND	0.20	ND	0.64		ND				25	
Benzyl chloride	ND	0.20	ND	1.0		ND				25	
Bromodichloromethane	ND	0.20	ND	1.3		ND				25	
Bromoform	ND	0.20	ND	2.1		ND				25	
Bromomethane	ND	0.20	ND	0.78		ND				25	
1,3-Butadiene	ND	0.20	ND	0.44		ND				25	
2-Butanone (MEK)	ND	8.0	ND	24		2.4				25	
Carbon Disulfide	6.3	2.0	20	6.2		6.2		1.66		25	
Carbon Tetrachloride	ND	0.20	ND	1.3		ND				25	
Chlorobenzene	ND	0.20	ND	0.92		ND				25	
Chloroethane	ND	0.20	ND	0.53		ND				25	
Chloroform	ND	0.20	ND	0.98		ND				25	
Chloromethane	1.7	0.40	3.4	0.83		1.6		4.20		25	
Cyclohexane	ND	0.20	ND	0.69		ND				25	
Dibromochloromethane	ND	0.20	ND	1.7		ND				25	
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5		ND				25	
1,2-Dichlorobenzene	ND	0.20	ND	1.2		ND				25	
1,3-Dichlorobenzene	ND	0.20	ND	1.2		ND				25	
1,4-Dichlorobenzene	ND	0.20	ND	1.2		ND				25	
Dichlorodifluoromethane (Freon 12)	0.57	0.20	2.8	0.99		0.56		2.14		25	
1,1-Dichloroethane	0.27	0.20	1.1	0.81		0.26		4.51		25	
1,2-Dichloroethane	ND	0.20	ND	0.81		ND				25	
1,1-Dichloroethylene	ND	0.20	ND	0.79		ND				25	
cis-1,2-Dichloroethylene	ND	0.20	ND	0.79		ND				25	
trans-1,2-Dichloroethylene	ND	0.20	ND	0.79		ND				25	
1,2-Dichloropropane	ND	0.20	ND	0.92		ND				25	
cis-1,3-Dichloropropene	ND	0.20	ND	0.91		ND				25	
trans-1,3-Dichloropropene	ND	0.20	ND	0.91		ND				25	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.20	ND	1.4		ND				25	
1,4-Dioxane	ND	2.0	ND	7.2		ND				25	
Ethanol	15	8.0	28	15		15		0.843		25	
Ethyl Acetate	ND	0.20	ND	0.72		ND				25	
Ethylbenzene	ND	0.20	ND	0.87		ND				25	
4-Ethyltoluene	ND	0.20	ND	0.98		ND				25	
Heptane	ND	0.20	ND	0.82		ND				25	
Hexachlorobutadiene	ND	0.20	ND	2.1		ND				25	
Hexane	ND	8.0	ND	28		ND				25	
2-Hexanone (MBK)	ND	0.20	ND	0.82		ND				25	
Isopropanol	1.7	8.0	4.1	20		1.8		5.32		25	
Methyl tert-Butyl Ether (MTBE)	ND	0.20	ND	0.72		ND				25	
Methylene Chloride	ND	2.0	ND	6.9		ND				25	
4-Methyl-2-pentanone (MIBK)	ND	0.20	ND	0.82		ND				25	
Naphthalene	ND	0.20	ND	1.0		ND				25	V-05
Propene	ND	8.0	ND	14		ND				25	
Styrene	ND	0.20	ND	0.85		ND				25	



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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	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B131554 - TO-15 Prep

Duplicate (B131554-DUP1)	Source: 1510764-10				Prepared: 09/23/15 Analyzed: 09/24/15						
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4		ND					25
Tetrachloroethylene	ND	0.20	ND	1.4		ND					25
Tetrahydrofuran	59	0.20	180	0.59		59			0.365		25
Toluene	0.24	0.20	0.90	0.75		0.24			1.65		25
1,2,4-Trichlorobenzene	ND	0.20	ND	1.5		ND					25
1,1,1-Trichloroethane	1.1	0.20	5.9	1.1		1.1			0.371		25
1,1,2-Trichloroethane	ND	0.20	ND	1.1		ND					25
Trichloroethylene	0.47	0.20	2.5	1.1		0.45			4.33		25
Trichlorofluoromethane (Freon 11)	0.79	0.80	4.4	4.5		0.78			1.02		25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	ND	6.1		ND					25
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98		ND					25
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98		ND					25
Vinyl Acetate	ND	4.0	ND	14		ND					25
Vinyl Chloride	ND	0.20	ND	0.51		ND					25
m&p-Xylene	ND	0.40	ND	1.7		ND					25
o-Xylene	ND	0.20	ND	0.87		ND					25

Surrogate: 4-Bromofluorobenzene (I) 8.14 8.00 102 70-130

Batch B131555 - TO-15 Prep

Blank (B131555-BLK1)	Prepared & Analyzed: 09/24/15						
Acetone	ND	1.4					
Benzene	ND	0.034					
Benzyl chloride	ND	0.034					
Bromodichloromethane	ND	0.034					
Bromoform	ND	0.034					
Bromomethane	ND	0.034					L-03
1,3-Butadiene	ND	0.034					
2-Butanone (MEK)	ND	1.4					
Carbon Disulfide	ND	0.34					
Carbon Tetrachloride	ND	0.034					
Chlorobenzene	ND	0.034					
Chloroethane	ND	0.034					
Chloroform	ND	0.034					
Chloromethane	ND	0.068					
Cyclohexane	ND	0.034					
Dibromochloromethane	ND	0.034					
1,2-Dibromoethane (EDB)	ND	0.034					
1,2-Dichlorobenzene	ND	0.034					
1,3-Dichlorobenzene	ND	0.034					
1,4-Dichlorobenzene	ND	0.034					
Dichlorodifluoromethane (Freon 12)	ND	0.034					
1,1-Dichloroethane	ND	0.034					
1,2-Dichloroethane	ND	0.034					
1,1-Dichloroethylene	ND	0.034					
cis-1,2-Dichloroethylene	ND	0.034					



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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	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B131555 - TO-15 Prep

Blank (B131555-BLK1)	Prepared & Analyzed: 09/24/15									
trans-1,2-Dichloroethylene	ND	0.034								
1,2-Dichloropropane	ND	0.034								
cis-1,3-Dichloropropene	ND	0.034								
trans-1,3-Dichloropropene	ND	0.034								
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.034								
1,4-Dioxane	ND	0.34								
Ethanol	ND	1.4								
Ethyl Acetate	ND	0.034								
Ethylbenzene	ND	0.034								
4-Ethyltoluene	ND	0.034								
Heptane	ND	0.034								
Hexachlorobutadiene	ND	0.034								
Hexane	ND	1.4								
2-Hexanone (MBK)	ND	0.034								
Isopropanol	ND	1.4								
Methyl tert-Butyl Ether (MTBE)	ND	0.034								
Methylene Chloride	ND	0.34								
4-Methyl-2-pentanone (MIBK)	ND	0.034								
Naphthalene	ND	0.034								V-05
Propene	ND	1.4								
Styrene	ND	0.034								
1,1,2,2-Tetrachloroethane	ND	0.034								
Tetrachloroethylene	ND	0.034								
Tetrahydrofuran	ND	0.034								
Toluene	ND	0.034								
1,2,4-Trichlorobenzene	ND	0.034								
1,1,1-Trichloroethane	ND	0.034								
1,1,2-Trichloroethane	ND	0.034								
Trichloroethylene	ND	0.034								
Trichlorofluoromethane (Freon 11)	ND	0.14								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14								
1,2,4-Trimethylbenzene	ND	0.034								
1,3,5-Trimethylbenzene	ND	0.034								
Vinyl Acetate	ND	0.68								
Vinyl Chloride	ND	0.034								
m&p-Xylene	ND	0.068								
o-Xylene	ND	0.034								
<i>Surrogate: 4-Bromofluorobenzene (I)</i>	7.97		8.00		99.6		70-130			

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

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	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B131555 - TO-15 Prep

LCS (B131555-BS1)	Prepared & Analyzed: 09/24/15									
Acetone	4.95			5.00		99.0	70-130			
Benzene	3.63			5.00		72.6	70-130			
Benzyl chloride	3.72			5.00		74.4	70-130			
Bromodichloromethane	4.02			5.00		80.4	70-130			
Bromoform	4.19			5.00		83.8	70-130			
Bromomethane	3.42			5.00		68.4 *	70-130			L-03
1,3-Butadiene	3.96			5.00		79.1	70-130			
2-Butanone (MEK)	3.57			5.00		71.4	70-130			
Carbon Disulfide	4.17			5.00		83.4	70-130			
Carbon Tetrachloride	3.94			5.00		78.8	70-130			
Chlorobenzene	3.91			5.00		78.2	70-130			
Chloroethane	4.12			5.00		82.3	70-130			
Chloroform	4.08			5.00		81.6	70-130			
Chloromethane	3.85			5.00		76.9	70-130			
Cyclohexane	3.85			5.00		77.0	70-130			
Dibromochloromethane	4.00			5.00		80.0	70-130			
1,2-Dibromoethane (EDB)	4.07			5.00		81.5	70-130			
1,2-Dichlorobenzene	3.95			5.00		78.9	70-130			
1,3-Dichlorobenzene	3.98			5.00		79.7	70-130			
1,4-Dichlorobenzene	3.87			5.00		77.4	70-130			
Dichlorodifluoromethane (Freon 12)	4.30			5.00		86.0	70-130			
1,1-Dichloroethane	4.04			5.00		80.7	70-130			
1,2-Dichloroethane	3.94			5.00		78.8	70-130			
1,1-Dichloroethylene	4.18			5.00		83.5	70-130			
cis-1,2-Dichloroethylene	4.01			5.00		80.2	70-130			
trans-1,2-Dichloroethylene	3.91			5.00		78.1	70-130			
1,2-Dichloropropane	3.91			5.00		78.3	70-130			
cis-1,3-Dichloropropene	4.04			5.00		80.7	70-130			
trans-1,3-Dichloropropene	3.73			5.00		74.6	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	3.61			5.00		72.2	70-130			
1,4-Dioxane	4.09			5.00		81.7	70-130			
Ethanol	4.50			5.00		90.1	70-130			
Ethyl Acetate	3.79			5.00		75.8	70-130			
Ethylbenzene	3.89			5.00		77.8	70-130			
4-Ethyltoluene	3.81			5.00		76.1	70-130			
Heptane	3.94			5.00		78.8	70-130			
Hexachlorobutadiene	4.19			5.00		83.8	70-130			
Hexane	3.96			5.00		79.1	70-130			
2-Hexanone (MBK)	3.57			5.00		71.3	70-130			
Isopropanol	5.26			5.00		105	70-130			
Methyl tert-Butyl Ether (MTBE)	3.51			5.00		70.1	70-130			
Methylene Chloride	4.00			5.00		79.9	70-130			
4-Methyl-2-pentanone (MIBK)	3.64			5.00		72.9	70-130			
Naphthalene	3.71			5.00		74.1	70-130			V-05
Propene	3.85			5.00		77.0	70-130			
Styrene	3.98			5.00		79.5	70-130			



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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	RPD Limits	RPD RPD	Limit	Flag/Qual
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Batch B131555 - TO-15 Prep

LCS (B131555-BS1)	Prepared & Analyzed: 09/24/15						
1,1,2,2-Tetrachloroethane	4.24		5.00		84.8	70-130	
Tetrachloroethylene	3.92		5.00		78.3	70-130	
Tetrahydrofuran	3.77		5.00		75.4	70-130	
Toluene	3.88		5.00		77.6	70-130	
1,2,4-Trichlorobenzene	4.34		5.00		86.7	70-130	
1,1,1-Trichloroethane	3.70		5.00		74.0	70-130	
1,1,2-Trichloroethane	4.14		5.00		82.7	70-130	
Trichloroethylene	3.94		5.00		78.8	70-130	
Trichlorofluoromethane (Freon 11)	4.06		5.00		81.3	70-130	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.48		5.00		89.6	70-130	
1,2,4-Trimethylbenzene	3.93		5.00		78.6	70-130	
1,3,5-Trimethylbenzene	3.91		5.00		78.2	70-130	
Vinyl Acetate	3.89		5.00		77.8	70-130	
Vinyl Chloride	3.93		5.00		78.6	70-130	
m&p-Xylene	8.57		10.0		85.7	70-130	
o-Xylene	3.81		5.00		76.2	70-130	
<i>Surrogate: 4-Bromofluorobenzene (l)</i>	8.24		8.00		103	70-130	



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FLAG/QUALIFIER SUMMARY

* QC result is outside of established limits.

† Wide recovery limits established for difficult compound.

‡ Wide RPD limits established for difficult compound.

Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

L-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.

V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound.

Increased uncertainty is associated with the reported value which is likely to be biased on the high side.



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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY,ME
Benzene	AIHA,FL,NJ,NY,VA,ME
Benzyl chloride	AIHA,FL,NJ,NY,VA,ME
Bromodichloromethane	AIHA,NJ,NY,VA,ME
Bromoform	AIHA,NJ,NY,VA,ME
Bromomethane	AIHA,FL,NJ,NY,ME
1,3-Butadiene	AIHA,NJ,NY,VA,ME
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA,ME
Carbon Disulfide	AIHA,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloroform	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
Cyclohexane	AIHA,NJ,NY,VA,ME
Dibromochloromethane	AIHA,NY,ME
1,2-Dibromoethane (EDB)	AIHA,NJ,NY,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
Dichlorodifluoromethane (Freon 12)	AIHA,NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA,ME
trans-1,3-Dichloropropene	AIHA,NY,ME
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	AIHA,NJ,NY,VA,ME
1,4-Dioxane	AIHA,NJ,NY,VA,ME
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA,ME
Hexachlorobutadiene	AIHA,NJ,NY,VA,ME
Hexane	AIHA,FL,NJ,NY,VA,ME
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY,ME
Naphthalene	NY,ME
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA,ME
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA,ME



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

CERTIFICATIONS

Certified Analyses included in this Report

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	10/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

1510704



Phone: 413-525-2332

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http://www.contestlabs.com

CHAIN OF CUSTODY RECORD (AIR)

Email: info@contestlabs.com

Doc #378 Rev 0 5/8/15

39 Spruce Street

East Longmeadow, MA 01028

Project Name: Texton GrahamProject Location: Providence, RIProject Number: 365215002Project Manager: Dave H. J. Hart

Con-Test Bid:

Invoice Recipient: Mark MessierSampled By: Mark Messier

Comments:

7-Day 10-Day Other: Requester Releaser Retriever Retainer Other 1-Day 3-Day 4-Day 2-Day 5-Day 6-Day 7-Day 8-Day 9-Day 10-Day 11-Day 12-Day 13-Day 14-Day 15-Day 16-Day 17-Day 18-Day 19-Day 20-Day 21-Day 22-Day 23-Day 24-Day 25-Day 26-Day 27-Day 28-Day 29-Day 30-Day 31-Day 32-Day 33-Day 34-Day 35-Day 36-Day 37-Day 38-Day 39-Day 40-Day 41-Day 42-Day 43-Day 44-Day 45-Day 46-Day 47-Day 48-Day 49-Day 50-Day 51-Day 52-Day 53-Day 54-Day 55-Day 56-Day 57-Day 58-Day 59-Day 60-Day 61-Day 62-Day 63-Day 64-Day 65-Day 66-Day 67-Day 68-Day 69-Day 70-Day 71-Day 72-Day 73-Day 74-Day 75-Day 76-Day 77-Day 78-Day 79-Day 80-Day 81-Day 82-Day 83-Day 84-Day 85-Day 86-Day 87-Day 88-Day 89-Day 90-Day 91-Day 92-Day 93-Day 94-Day 95-Day 96-Day 97-Day 98-Day 99-Day 100-Day 101-Day 102-Day 103-Day 104-Day 105-Day 106-Day 107-Day 108-Day 109-Day 110-Day 111-Day 112-Day 113-Day 114-Day 115-Day 116-Day 117-Day 118-Day 119-Day 120-Day 121-Day 122-Day 123-Day 124-Day 125-Day 126-Day 127-Day 128-Day 129-Day 130-Day 131-Day 132-Day 133-Day 134-Day 135-Day 136-Day 137-Day 138-Day 139-Day 140-Day 141-Day 142-Day 143-Day 144-Day 145-Day 146-Day 147-Day 148-Day 149-Day 150-Day 151-Day 152-Day 153-Day 154-Day 155-Day 156-Day 157-Day 158-Day 159-Day 160-Day 161-Day 162-Day 163-Day 164-Day 165-Day 166-Day 167-Day 168-Day 169-Day 170-Day 171-Day 172-Day 173-Day 174-Day 175-Day 176-Day 177-Day 178-Day 179-Day 180-Day 181-Day 182-Day 183-Day 184-Day 185-Day 186-Day 187-Day 188-Day 189-Day 190-Day 191-Day 192-Day 193-Day 194-Day 195-Day 196-Day 197-Day 198-Day 199-Day 200-Day 201-Day 202-Day 203-Day 204-Day 205-Day 206-Day 207-Day 208-Day 209-Day 210-Day 211-Day 212-Day 213-Day 214-Day 215-Day 216-Day 217-Day 218-Day 219-Day 220-Day 221-Day 222-Day 223-Day 224-Day 225-Day 226-Day 227-Day 228-Day 229-Day 230-Day 231-Day 232-Day 233-Day 234-Day 235-Day 236-Day 237-Day 238-Day 239-Day 240-Day 241-Day 242-Day 243-Day 244-Day 245-Day 246-Day 247-Day 248-Day 249-Day 250-Day 251-Day 252-Day 253-Day 254-Day 255-Day 256-Day 257-Day 258-Day 259-Day 260-Day 261-Day 262-Day 263-Day 264-Day 265-Day 266-Day 267-Day 268-Day 269-Day 270-Day



AIR Only Receipt Checklist

CLIENT NAME: AMEC

RECEIVED BY: PB

DATE: 9-16-15

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

Yes No

2) Does the chain agree with the samples?

Yes No

If not, explain:

3) Are all the samples in good condition?

Yes No

If not, explain:

4) Are there any samples "On Hold"?

Yes No Stored where:

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

Yes No

Who was notified _____ Date _____ Time _____

6) Location where samples are stored:

Air Lab

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

7) Number of cans Individually Certified or Batch Certified? None

Containers received at Con-Test

	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	13	6 Lit
Tediar Bags		
TO-17 Tubes		
Regulators	13	30 min
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009) (TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

1201 / 4300 = -29
1238 / 4299 = -5

Unused Regulators:

4 Nut/Ferrels
4 Ft of tubing

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

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

Laboratory Comments:	1204	1745	4212	4300	4294	4200
1008	1211	1749	4213	4301	4295	
1283	1945	1930	4039	4298	4079	
1258	1259	1238	4107	4299	4080	

Page 2 of 2
Login Sample Receipt Checklist
(Rejection Criteria Listing - Using Sample Acceptance Policy)
Any False statement will be brought to the attention of Client

Question	Answer (True/False)		Comment
	T/F/NA		
1) The coolers'/boxes' custody seal, if present, is intact.	N/A		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	N/A		
4) Cooler Temperature is acceptable.	N/A		
5) Cooler Temperature is recorded.	N/A		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) Samples are received within Holding Time.	T		
10) Sample containers have legible labels.	T		
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	T		
12) Sample collection date/times are provided.	T		
13) Appropriate sample/media containers are used.	T		
14) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
15) Trip blanks provided if applicable.	T		

Doc #278 Rev. 5 October 2014

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

Date/Time:
 Date/Time: 9/16/15
 17:15

APPENDIX B

Analytical Laboratory Detection Limits

Con-Test Analytical Laboratory

1/30/2015

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Blank Spike / LCS %R	Blank Spike / LCS RPD
TO-15 ppbv low level in Air (EPA TO-15)							
Preservation: NA							
Container: SUMMA Canister							
			Amount Required:		Hold Time: 30 days		
Acetone	0.69	2.0 ppbv		25		70 - 130	
Benzene	0.026	0.050 ppbv		25		70 - 130	
Benzyl chloride	0.0097	0.050 ppbv		25		70 - 130	
Bromodichloromethane	0.011	0.050 ppbv		25		70 - 130	
Bromoform	0.0096	0.050 ppbv		25		70 - 130	
Bromomethane	0.034	0.050 ppbv		25		70 - 130	
1,3-Butadiene	0.026	0.050 ppbv		25		70 - 130	
2-Butanone (MEK)	0.037	2.0 ppbv		25		70 - 130	
Carbon Disulfide	0.017	0.50 ppbv		25		70 - 130	
Carbon Tetrachloride	0.012	0.050 ppbv		25		70 - 130	
Chlorobenzene	0.017	0.050 ppbv		25		70 - 130	
Chloroethane	0.019	0.050 ppbv		25		70 - 130	
Chloroform	0.012	0.050 ppbv		25		70 - 130	
Chloromethane	0.022	0.10 ppbv		25		70 - 130	
Cyclohexane	0.029	0.050 ppbv		25		70 - 130	
Dibromochloromethane	0.013	0.050 ppbv		25		70 - 130	
1,2-Dibromoethane (EDB)	0.011	0.050 ppbv		25		70 - 130	
1,2-Dichlorobenzene	0.013	0.050 ppbv		25		70 - 130	
1,3-Dichlorobenzene	0.011	0.050 ppbv		25		70 - 130	
1,4-Dichlorobenzene	0.013	0.050 ppbv		25		70 - 130	
Dichlorodifluoromethane (Freon 12)	0.022	0.050 ppbv		25		70 - 130	
1,1-Dichloroethane	0.014	0.050 ppbv		25		70 - 130	
1,2-Dichloroethane	0.014	0.050 ppbv		25		70 - 130	
1,1-Dichloroethylene	0.012	0.050 ppbv		25		70 - 130	
cis-1,2-Dichloroethylene	0.019	0.050 ppbv		25		70 - 130	
trans-1,2-Dichloroethylene	0.013	0.050 ppbv		25		70 - 130	
1,2-Dichloropropane	0.017	0.050 ppbv		25		70 - 130	
cis-1,3-Dichloropropene	0.013	0.050 ppbv		25		70 - 130	
trans-1,3-Dichloropropene	0.013	0.050 ppbv		25		70 - 130	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 113)	0.012	0.050 ppbv		25		70 - 130	
1,4-Dioxane	0.32	0.50 ppbv		25		70 - 130	
Ethanol	0.89	2.0 ppbv		25		70 - 130	
Ethyl Acetate	0.037	0.050 ppbv		25		70 - 130	
Ethylbenzene	0.014	0.050 ppbv		25		70 - 130	
4-Ethyltoluene	0.011	0.050 ppbv		25		70 - 130	
Heptane	0.016	0.050 ppbv		25		70 - 130	
Hexachlorobutadiene	0.019	0.050 ppbv		25		70 - 130	
Hexane	0.088	2.0 ppbv		25		70 - 130	
2-Hexanone (MBK)	0.013	0.050 ppbv		25		70 - 130	
Isopropanol	0.061	2.0 ppbv		25		70 - 130	
Methyl tert-Butyl Ether (MTBE)	0.015	0.050 ppbv		25		70 - 130	
Methylene Chloride	0.061	0.50 ppbv		25		70 - 130	
4-Methyl-2-pentanone (MIBK)	0.012	0.050 ppbv		25		70 - 130	
Naphthalene	0.027	0.050 ppbv		25		70 - 130	
Propene	0.15	2.0 ppbv		25		70 - 130	
Styrene	0.0097	0.050 ppbv		25		70 - 130	

Con-Test Analytical Laboratory

1/30/2015

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Blank Spike / LCS %R	RPD
1,1,2,2-Tetrachloroethane	0.012	0.050 ppbv		25		70 - 130	
Tetrachloroethylene	0.014	0.050 ppbv		25		70 - 130	
Tetrahydrofuran	0.021	0.050 ppbv		25		70 - 130	
Toluene	0.016	0.050 ppbv		25		70 - 130	
1,2,4-Trichlorobenzene	0.019	0.050 ppbv		25		70 - 130	
1,1,1-Trichloroethane	0.0090	0.050 ppbv		25		70 - 130	
1,1,2-Trichloroethane	0.015	0.050 ppbv		25		70 - 130	
Trichloroethylene	0.015	0.050 ppbv		25		70 - 130	
Trichlorofluoromethane (Freon 11)	0.017	0.050 ppbv		25		70 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freo	0.014	0.050 ppbv		25		70 - 130	
1,2,4-Trimethylbenzene	0.012	0.050 ppbv		25		70 - 130	
1,3,5-Trimethylbenzene	0.010	0.050 ppbv		25		70 - 130	
Vinyl Acetate	0.025	1.0 ppbv		25		70 - 130	
Vinyl Chloride	0.021	0.050 ppbv		25		70 - 130	
m&p-Xylene	0.025	0.10 ppbv		25		70 - 130	
o-Xylene	0.014	0.050 ppbv		25		70 - 130	
surr: 4-Bromofluorobenzene (1)			70 - 130				
Bromochloromethane (1)							
1,4-Difluorobenzene (1)							
Chlorobenzene-d5 (1)							