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January 4, 2022

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

RE: Air Monitoring Report
September 2021 Semi-Annual Monitoring
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
Wood Project No. 3652210306

Dear Mr. Martella:

This letter report presents the results of semi-annual compliance sampling and analysis conducted by Wood Environment and Infrastructure Solutions, Inc. (Wood) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site). The reporting period is from April 2021 through October 2021 which includes one semi-annual compliance indoor air sampling event conducted on September 8, 2021.

The sampling, analysis and reporting are being conducted consistent with the Rhode Island Department of Environmental Management (RIDEM) 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 in an enclosure located at the north, or rear, of the large retail space (**Figure 1**).

The small retail spaces consist of the eastern, central, and western retail spaces (**Figure 1**). The mitigation systems in the central and western 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 the small retail spaces. The eastern small retail space extraction well is located along the wall of the large retail space (EW-5) and is part of the ASD system described above.

Current Monitoring Results

The following provides a discussion of results from sampling conducted on September 8, 2021. The sampling was performed consistent with the requirements of the Orders of Approval. This is the eleventh semi-annual monitoring event since the change from quarterly monitoring after February 2016, based on the historical indoor air data and performance of the existing vapor mitigation system.

The laboratory analytical report (Con-Test W. O. 21I0397) for September 8, 2021, analyses is provided in **Appendix A**, and the laboratory's detection limits are provided in **Appendix B.**

Consistent with previous reports, analytical results of the most recent 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.

Outdoor Reference Sample

One outdoor reference air sample (AA-1) was collected southwest of the property, upwind of the retail building. The results for the recent outdoor reference sample and the previous outdoor reference sample are provided in **Table 1**. All historic outdoor reference sample results are provided in **Appendix C**.

Small Retail Spaces

The September 2021 sampling event included an indoor air sample from each of the three small retail spaces (locations IA-5, IA-6, and IA-7) and one air sample collected from each of the three vapor extraction wells (EW-5, EW-6, and EW-7). The sub-slab vacuum monitoring (pressure differential measurements) was conducted at locations VMW-5, VMW-6, and VMW-7 on September 8, 2021 in conjunction with the semi-annual air sampling program. The indoor air and vapor extraction sampling and sub-slab vacuum monitoring locations are shown in **Figure 1**.

During the reporting period, the eastern small retail space (indoor air sample location IA-5) was intermittently occupied as storage/staging area for a clothing consignment shop which occupied the center small retail space (sample location IA-6). The western small retail space (sample location IA-7) was intermittently occupied as a church hall.

Analytical results for the small retail spaces are summarized in **Table 2a** (indoor air, two most recent sampling events), and **Table 2b** (extraction wells, two most recent sampling events). For reference, all analytical results for the small retail spaces from initiation of sampling in 2009, including a baseline event prior to system start-up in February 2009, and all subsequent sampling events are presented in **Appendix D1** (indoor air, small retail) and **Appendix D2** (extraction wells, small retail). The vacuum monitoring results for the small retails spaces are presented in **Table 3**.

The following conclusions are based on Site observations and the September 8, 2021 analytical results:

- The indoor air sample results for the September 8, 2021 sampling event in the small retail spaces (sample locations IA-5 through IA-7) were in compliance with TAC action levels.
- The eastern small retail space (indoor air sample location IA-5) was intermittently occupied as storage/staging area for the consignment shop during the reporting period.
- The center small retail space (sample location IA-6) was occupied as a consignment shop during the reporting period.
- The western small retail space (sample location IA-7) was intermittently occupied as a church hall.

- The mitigation systems in the small retail areas were functioning correctly during the sampling event.

Large Retail Space

The September 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) and from the manifold where air from the four vapor extraction wells is combined (EW-Combined). In addition, one sample of exhaust from the carbon treatment system (Post Carbon) was collected. The sub-slab vacuum monitoring (pressure differential measurements) was conducted on September 8, 2021 at locations VMW-1 through VMW-4 in conjunction with the air sampling program. The sampling locations are shown in **Figure 1**.

Analytical results for the large retail spaces are summarized in **Table 4a** (indoor air, two most recent samples for IA-1, IA-2, IA-3, and IA-4), and **Table 4b** (extraction wells and post-carbon treatment, two most recent sampling events). For reference, all analytical results for the large retail spaces from initiation of sampling in 2009, including a baseline event prior to system start-up in February 2009, and all subsequent sampling events are presented in **Appendix E1** (indoor air, large space) and **Appendix E2** (extraction wells, large space)**.** The vacuum monitoring results for the large retail spaces are presented in **Table 5**.

The following conclusions are based on Site observations and a review of analytical results:

- The indoor air sample results for the September 8, 2021 sampling event in the large retail spaces (sample locations IA-1 through IA-4) were in compliance with TAC action levels.
- The mitigation system in the large retail area was functioning correctly during the sampling event.
- A sample (Post Carbon) was collected from the exhaust air of the treatment system. The concentration of total VOCs was lower than the total VOC concentration in the previous sampling rounds in September 2020 and March 2021. Wood will continue to monitor the total VOCs in the exhaust air to determine when a carbon change-out may be required in the future.

ASD System Monitoring/Maintenance

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

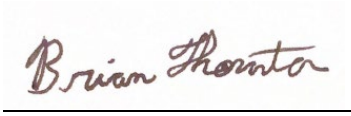
Next Reporting Period

The next Semi-Annual Report will cover the monitoring period from November 2021 through March 2022. The report will be prepared and submitted to the Rhode Island Department of Environmental Management in April 2022.

Please contact Greg Simpson, Textron, (401-457-2635) or Greg Avenia, Wood, (401-648-9243) if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

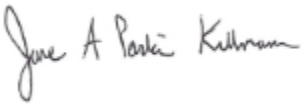
Sincerely,

Wood Environment & Infrastructure Solutions, Inc.



Brian Thornton
Technical Professional II - Geology

Gregory Avenia, PE, CFM
Project Manager



Jane Parkin Kullmann, PhD, CPH
Senior Risk Assessor

Attachments:

	Table 1.	Outdoor Air Reference Sampling
	Table 2a.	Summary of Analytical Results – Indoor Air Sampling for Small Retail Spaces
	Table 2b.	Summary of Analytical Results – Extraction Wells (Small Retail)
	Table 3.	Vacuum Monitoring Results – Small Retail Spaces
	Table 4a.	Summary of Analytical Results – Indoor Air Sampling for Large Retail Space
	Table 4b.	Summary of Analytical Results – Extraction Well and Post-Treatment Sampling for Large Retail Space
	Table 5.	Vacuum Monitoring Results – Large Retail Space
	Figure 1.	Vapor Mitigation Sample Locations
	Appendix A.	Laboratory Report
	Appendix B.	Analytical Laboratory Detection Limits
	Appendix C.	Outdoor Reference Sample Results
	Appendix D1.	Summary of All Analytical Results – Indoor Air Samples for Small Retail Space
	Appendix D2.	Summary of All Analytical Results – Extraction Well Samples for Small Retail Space
	Appendix E1.	Summary of All Analytical Results – Indoor Air Samples for Large Retail Space
	Appendix E2.	Summary of All Analytical Results – Extraction Well and Post-Treatment Samples for Large Retail Space

cc: Robert Azar, Deputy Director - Providence Planning & Development (Electronic)
G. Simpson, Textron, Inc. (Electronic)
C. Spooner, Textron, Inc. (Electronic)
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Tables

Table 1.
Summary of Analytical Results - Outdoor Air Reference Sampling
Former Gorham Manufacturing Site
Providence, Rhode Island

	Area:	Outdoor Air Reference Location	
	Location:	AA-1	
	Sample ID:	AA-1-030821	AA-1
	Sample Date:	3/8/2021	9/8/2021
Analyte	**Units**		
1,1,1,2-Tetrachloroethane	ug/m3	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.22 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	0.15 U	0.17
1,2-Dibromoethane (EDB)	ug/m3	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	0.14 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	0.15 U	0.058 J
1,3-Butadiene	ug/m3	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.18 U	0.21 U
2-Butanone	ug/m3	0.71 J	1.7 J
2-Hexanone	ug/m3	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	0.12 U	0.14 U
Acetone	ug/m3	7.8	11
Benzene	ug/m3	0.68	0.51
Benzyl chloride	ug/m3	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.2 U	0.23 U
Bromoform	ug/m3	0.31 U	0.36 U
Bromomethane	ug/m3	0.12 U	0.14 U
Carbon Disulfide	ug/m3	0.93 U	1.1 U
Carbon Tetrachloride	ug/m3	0.71	0.43
Chlorobenzene	ug/m3	0.14 U	0.16 U
Chloroethane	ug/m3	0.079 U	0.092 U
Chloroform	ug/m3	0.11 J	0.089 J
Chloromethane	ug/m3	1.8	1.2
cis-1,2-Dichloroethene	ug/m3	0.12 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	0.14 U	0.16 U
Cyclohexane	ug/m3	0.1 U	0.12 U
Dibromochloromethane	ug/m3	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	2.9	2.4
Ethanol	ug/m3	11	7.4
Ethyl Acetate	ug/m3	2.4	1.3 U
Ethylbenzene	ug/m3	0.081 J	0.18
Hexachlorobutadiene	ug/m3	0.32 U	0.37 U
Hexane	ug/m3	4.2 U	4.9 U
Isopropyl alcohol	ug/m3	0.72 J	3.4 U
m,p-Xylene	ug/m3	0.31	0.4
Methyl methacrylate	ug/m3		0.14 U
Methylene Chloride	ug/m3	5.8	0.38 J
Methyl-t-butyl ether	ug/m3	0.11 U	0.13 U
Naphthalene	ug/m3	0.16 U	
n-Heptane	ug/m3	0.12 U	0.18
o-Xylene	ug/m3	0.17	0.15
Propylene (Propene)	ug/m3	2.1 U	2.4 U
Styrene	ug/m3	0.13 U	0.15 U
Tetrachloroethene	ug/m3	0.11 J	0.24 U
Tetrahydrofuran	ug/m3	0.88 U	1 U
Toluene	ug/m3	0.45	0.86
trans-1,2-Dichloroethene	ug/m3	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	0.14 U	0.16 U
Trichloroethene	ug/m3	0.16 U	0.19 U
Trichlorofluoromethane	ug/m3	1.6	1.2
Trichlorotrifluoroethane	ug/m3	0.57 J	0.59 J
Vinyl Acetate	ug/m3	2.1 U	2.5 U
Vinyl Chloride	ug/m3	0.077 U	0.089 U

Notes:
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

Prepared By: AKN, 11/4/2021

Checked By: BT, 11/4/2021

Table 2a.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Eastern Small Retail Space		Small Center Retail Space		Western Small Retail Space	
		Location:	IA-5		IA-6		IA-7	
		Sample ID:	IA-5-030821	IA-5	IA-6-030821	IA-6	IA-7-030821	IA-7
		Sample Date:	3/8/2021	9/8/2021	3/8/2021	9/8/2021	3/8/2021	9/8/2021
Analyte	**Units**	**CT IACTIND 2003**						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.44 U	0.37 U	0.44 U	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.21 U	0.24 U	0.21 U	0.24 U	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.22 U	0.52 U	0.22 U	0.52 U	0.22 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.035 J	0.17	0.15 U	0.25	0.15 U	0.17
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.23 U	0.27 U	0.23 U	0.27 U	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.15 U	0.17 U	0.15 U	0.089 J	0.15 U	0.058 J
1,3-Butadiene	ug/m3	NA	0.066 U	0.077 U	0.066 U	0.077 U	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.21 U	0.18 U	0.2 J	0.18 U	0.21 U
2-Butanone	ug/m3	500	1.3 J	1.7 J	0.53 J	1.6 J	2 J	1.5 J
2-Hexanone	ug/m3	NA	0.25 U	0.29 U	0.25 U	0.29 U	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.15 U	0.17 U	0.15 U	0.17 U	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Acetone	ug/m3	500	11	12	6	15	16	13
Benzene	ug/m3	3.3	0.63	0.43	0.62	0.78	0.63	0.43
Benzyl chloride	ug/m3	NA	0.16 U	0.18 U	0.16 U	0.18 U	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.2 U	0.23 U	0.2 U	0.23 U	0.2 U	0.23 U
Bromoform	ug/m3	7.3	0.31 U	0.36 U	0.31 U	0.36 U	0.31 U	0.36 U
Bromomethane	ug/m3	NA	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Carbon Disulfide	ug/m3	NA	0.93 U	1.1 U	0.93 U	1.1 U	0.93 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.34	0.44	0.46	0.4	0.26	0.4
Chlorobenzene	ug/m3	200	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Chloroethane	ug/m3	500	0.079 U	0.092 U	0.079 U	0.092 U	0.079 U	0.092 U
Chloroform	ug/m3	0.5	0.15 U	0.12 J	0.15 U	0.17 U	0.15 U	0.17 U
Chloromethane	ug/m3	80	0.12 U	1.2	0.12 U	1.3	0.12 U	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Cyclohexane	ug/m3	NA	0.1 U	0.12 U	0.1 U	0.12 U	0.1 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.26 U	0.3 U	0.26 U	0.3 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	1.9	2.4	0.15 U	2.4	0.15 U	2.3
Ethanol	ug/m3	NA	110	18	390	140	570	150
Ethyl Acetate	ug/m3	NA	2.8	1.3 U	1.1 U	27	3.8	1.3 U
Ethylbenzene	ug/m3	290	0.083 J	0.18	0.13	0.24	0.14	0.18
Hexachlorobutadiene	ug/m3	NA	0.32 U	0.37 U	0.32 U	0.37 U	0.32 U	0.37 U
Hexane	ug/m3	NA	4.2 U	4.9 U	0.54 J	4.9 U	4.2 U	4.9 U
Isopropyl alcohol	ug/m3	NA	2 J	1.5 J	1.8 J	3.2 J	18	6.1
m,p-Xylene	ug/m3	NA	0.2 J	0.51	0.29	0.65	0.45	0.47
Methyl methacrylate	ug/m3	NA	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Methylene Chloride	ug/m3	17	2.8	0.41 J	2.4	2.4	5.2	0.57 J
Methyl-t-butyl ether	ug/m3	190	0.11 U	0.13 U	0.11 U	0.13 U	0.11 U	0.13 U
n-Heptane	ug/m3	NA	0.36	0.21	0.12 U	0.51	0.12 U	0.23
o-Xylene	ug/m3	NA	0.078 J	0.18	0.12 J	0.28	0.17	0.2
Propylene (Propene)	ug/m3	NA	2.1 U	2.4 U	2.1 U	2.4 U	2.1 U	2.4 U
Styrene	ug/m3	290	0.13 U	0.056 J	0.13 U	0.22	0.13 U	0.08 J
Tetrachloroethene	ug/m3	5	0.22	0.21 J	0.24	0.34	2	0.74
Tetrahydrofuran	ug/m3	NA	0.88 U	1 U	0.88 U	1 U	0.88 U	1 U
Toluene	ug/m3	500	0.58	1.1	0.58	2.4	0.75	1.1
trans-1,2-Dichloroethene	ug/m3	200	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Trichloroethene	ug/m3	1	0.16 U	0.2	0.16 U	0.16 J	0.16 U	0.13 J
Trichlorofluoromethane	ug/m3	500	1.1	1.3	1	1.3	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.44 J	0.59 J	0.92 U	0.67 J	0.92 U	0.63 J
Vinyl Acetate	ug/m3	NA	2.1 U	2.5 U	2.1 U	2.5 U	2.1 U	2.5 U
Vinyl Chloride	ug/m3	1.9	0.077 U	0.089 U	0.077 U	0.089 U	0.077 U	0.089 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021

Checked By: BT, 11/4/2021

Table 2b.
Summary of Analytical Results - Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Eastern Small		Extraction Well - Center Small		Extraction Well - Western Small	
Location:		EW-5		EW-6		EW-7	
Sample ID:		EW-5-030821	EW-5	EW-6-030821	EW-6	EW-7-030821	EW-7
Sample Date:		3/8/2021	9/8/2021	3/8/2021	9/8/2021	3/8/2021	9/8/2021
Analyte	**Units**						
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	11	0.55 U	0.55 U	0.55 U	42	12
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	1.6	0.4 U	0.4 U	0.4 U	2.7	1.5
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	0.74 U	1.5 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Butanone	ug/m3	130	3.5 J	6.3 J	4.2 J	21	25
2-Hexanone	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	640	16	32	35	11	7.8 J
Benzene	ug/m3	3	0.46	1.6	1.4	1.2	0.66
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Carbon Disulfide	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	66
Carbon Tetrachloride	ug/m3	0.63 U	0.43 J	0.63 U	0.43 J	0.47 J	0.44 J
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	0.3 J	0.17 J	0.49 U	0.49 U	2.9	2.6
Chloromethane	ug/m3	0.41 U	1.4	0.41 U	1.4	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	0.52	0.4 U	0.4 U	0.4 U	2.1	1.4
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	2.5	0.49 U	2.4	0.49 U	0.49 U
Ethanol	ug/m3	47	94	8.2	170	150	12
Ethyl Acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	16	0.17 J	0.43 U	0.22 J	0.16 J	0.18 J
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	14 U	14 U	14 U	14 U	14 U
Isopropyl alcohol	ug/m3	9.8 U	2.7 J	9.8 U	3 J	8.5 J	4 J
m,p-Xylene	ug/m3	67	0.59 J	0.87 U	0.56 J	0.43 J	0.52 J
Methyl methacrylate	ug/m3		0.41 U		0.41 U		0.41 U
Methylene Chloride	ug/m3	1.8 J	0.9 J	3.5 U	1 J	3.5 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3	3.4		0.52 U		0.52 U	
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	18	0.24 J	0.43 U	0.24 J	0.2 J	0.17 J
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.43 U	0.14 J	0.43 U	0.15 J	0.46	0.21 J
Tetrachloroethene	ug/m3	0.38 J	0.56 J	0.68 U	0.27 J	190	110
Tetrahydrofuran	ug/m3	820	2.9 U	2.9 U	1.5 J	1300	1700
Toluene	ug/m3	1.9	1.4	0.57	1.9	0.75	1.4
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	3.2	1.8
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	40	0.54 U	0.54 U	0.54 U	320	210
Trichlorofluoromethane	ug/m3	2 J	1.3 J	1.1 J	1.3 J	600	180
Trichlorotrifluoroethane	ug/m3	3.1 U	0.69 J	3.1 U	0.64 J	3.1 U	3.1 U
Vinyl Acetate	ug/m3	7 U	7 U	7 U	7 U	7 U	7 U
Vinyl Chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Table 3
Vacuum Monitoring Results - Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

	Pressure Differential (inches of water)		
Date	VMW-5	VMW-6	VMW-7
2/3/2009	-0.25	-0.17	0.00
2/18/2009	-0.212	-0.155	-0.011
2/26/2009	-0.230	-0.120	-0.025
3/6/2009	-0.200	-0.086	-0.012
4/14/2009	-0.108	-0.054	-0.014
5/15/2009	-0.081	-0.073	-0.016
6/11/2009	-0.090	-0.076	-0.098
9/17/2009	-0.110	-0.102	+0.074
12/29/2009**	-0.011	-0.010	-0.061
3/26/2010	-0.245	-0.142	-0.018
7/1/2010	-0.542	-0.114	-0.176
9/16/2010	-0.247	-0.874	-0.013
12/7/2010	-0.044	-0.028	+0.022
2/17/2011	-0.212	-0.599	-0.337
6/2/2011	-0.277	-0.236	-0.138**
9/15/2011	-0.234	-0.212	-0.010
12/8/2011	-0.609	-0.115	-0.009
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
12/18/2015	-0.378	-0.177	-0.005
2/18/2016	-0.228	-0.987	-0.009
8/5/2016	-0.243	-0.095	-0.088
2/13/2017	-0.0195	-0.08	-0.107
9/6/2017	-0.242	-0.045	-0.003
2/28/2018	-0.227	-0.100	-0.010
9/12/2018	-0.237	-0.058	-0.006
2/8/2019	-0.129	-0.078	-0.127
9/6/2019	-0.217	-0.107	-0.002
2/14/2020	-0.195	-0.074	-0.011
9/9/2020	-0.217	-0.109	-0.137
3/8/2021	-0.209	-0.172	-0.002
9/8/2021	-0.227	-0.392	-0.027

** ASD system offline.
NM = Not Measured

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

Prepared by/Date: BPT 11/01/2021
Checked by/Date: JPK 1/4/2021

Table 4a.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space							
		Location:	IA-1		IA-2		IA-3		IA-4	
		Sample ID:	IA-1-030821	IA-1	IA-2-030821	IA-2	IA-3-030821	IA-3	IA-4-030821	IA-4
		Sample Date:	3/8/2021	9/8/2021	3/8/2021	9/8/2021	3/8/2021	9/8/2021	3/8/2021	9/8/2021
Analyte	**Units**	**CT IACTIND 2003**								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.44 U	0.37 U	0.44 U	0.37 U	0.44 U	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.21 U	0.24 U	0.21 U	0.24 U	0.21 U	0.24 U	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.22 U	0.52 U	0.22 U	0.52 U	0.22 U	0.52 U	0.22 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.15 U	0.23	0.15 U	0.23	0.15 U	0.24	0.15 U	0.21
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.23 U	0.27 U	0.23 U	0.27 U	0.23 U	0.27 U	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.15 U	0.089 J	0.15 U	0.093 J	0.15 U	0.099 J	0.15 U	0.086 J
1,3-Butadiene	ug/m3	NA	0.066 U	0.077 U	0.066 U	0.077 U	0.066 U	0.077 U	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
2-Butanone	ug/m3	500	2 J	4.2	0.77 J	2.5 J	3.1 J	2.9 J	3.5 U	2.6 J
2-Hexanone	ug/m3	NA	0.25 U	0.29 U	0.25 U	0.29 U	0.25 U	0.29 U	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.15 U	0.17 U	0.15 U	0.17 U	0.15 U	0.17 U	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.12 U	0.14 U	0.12 U	2.2	0.12 U	0.14 U	0.12 U	0.14 U
Acetone	ug/m3	500	8.9	19	4.8	16	15	16	6.6	15
Benzene	ug/m3	3.3	0.59	0.55	0.51	0.45	0.6	0.46	0.5	0.41
Benzyl chloride	ug/m3	NA	0.16 U	0.18 U	0.16 U	0.18 U	0.16 U	0.18 U	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.2 U	0.23 U	0.2 U	0.23 U	0.2 U	0.23 U	0.2 U	0.23 U
Bromoform	ug/m3	7.3	0.31 U	0.36 U	0.31 U	0.36 U	0.31 U	0.36 U	0.31 U	0.36 U
Bromomethane	ug/m3	NA	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Carbon Disulfide	ug/m3	NA	0.93 U	1.1 U	0.93 U	0.37 J	0.93 U	1.1 U	0.93 U	0.31 J
Carbon Tetrachloride	ug/m3	0.54	**0.55**	0.44	0.46	0.43	0.15 J	0.43	0.51	0.42
Chlorobenzene	ug/m3	200	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Chloroethane	ug/m3	500	0.079 U	0.092 U	0.079 U	0.092 U	0.079 U	0.092 U	0.079 U	0.092 U
Chloroform	ug/m3	0.5	0.15 U	0.13 J	0.097 J	0.21	0.15	0.16 J	0.091 J	0.18
Chloromethane	ug/m3	80	0.12 U	1.3	0.12 U	1.5	0.12 U	1.2	0.12 U	1.5
cis-1,2-Dichloroethene	ug/m3	100	0.12 U	0.14 U	0.12 U	0.13 J	0.12 U	0.14 U	0.12 U	0.11 J
cis-1,3-Dichloropropene	ug/m3	NA	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Cyclohexane	ug/m3	NA	0.1 U	0.12 U	0.1 U	0.12 U	0.1 U	0.12 U	0.1 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.26 U	0.3 U	0.26 U	0.3 U	0.26 U	0.3 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	0.15 U	2.4	2	2.3	0.15 U	2.4	0.15 U	2.5
Ethanol	ug/m3	NA	23	110	5	53	19	110	5.6	45
Ethyl Acetate	ug/m3	NA	7.5	1.3 U	1.1 U	1.3 U	1.1 U	1.3 U	1.1 U	1.3 U
Ethylbenzene	ug/m3	290	0.1 J	0.22	0.07 J	0.17	0.11 J	0.21	0.07 J	0.16
Hexachlorobutadiene	ug/m3	NA	0.32 U	0.37 U	0.32 U	0.37 U	0.32 U	0.37 U	0.32 U	0.37 U
Hexane	ug/m3	NA	4.2 U	4.9 U	4.2 U	4.9 U	4.2 U	4.9 U	4.2 U	4.9 U
Isopropyl alcohol	ug/m3	NA	2.9 U	3.2 J	2.9 U	2 J	2.9 U	3 J	2.9 U	1.9 J
m,p-Xylene	ug/m3	NA	0.3	0.71	0.2 J	0.55	0.31	0.61	0.18 J	0.5
Methyl methacrylate	ug/m3	NA	0.12 U	0.14 U	0.12 U	0.61	0.12 U	0.14 U	0.12 U	0.14 U
Methylene Chloride	ug/m3	17	2.2	0.93 J	1.5	0.79 J	4.1	1.1 J	1.2	0.74 J
Methyl-t-butyl ether	ug/m3	190	0.11 U	0.13 U	0.11 U	0.13 U	0.11 U	0.13 U	0.11 U	0.13 U
n-Heptane	ug/m3	NA	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.32	0.12 U	0.21
o-Xylene	ug/m3	NA	0.15	0.26	0.086 J	0.23	0.13 J	0.25	0.073 J	0.22
Propylene (Propene)	ug/m3	NA	2.1 U	2.4 U	2.1 U	2.4 U	2.1 U	2.4 U	2.1 U	2.4 U
Styrene	ug/m3	290	0.13 U	0.1 J	0.13 U	0.51	0.13 U	0.095 J	0.13 U	0.56
Tetrachloroethene	ug/m3	5	0.28	0.39	0.14 J	0.58	0.28	0.43	0.14 J	0.52
Tetrahydrofuran	ug/m3	NA	0.88 U	1 U	0.88 U	1 U	0.88 U	1 U	0.88 U	1 U
Toluene	ug/m3	500	0.53	1.2	0.45	1.3	0.56	1.3	0.41	1.1
trans-1,2-Dichloroethene	ug/m3	200	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Trichloroethene	ug/m3	1	0.1 J	0.13 J	0.16 U	0.22	0.13 J	0.14 J	0.16 U	0.21
Trichlorofluoromethane	ug/m3	500	1.1	1.3	1.1	1.3	0.99	1.4	1.1	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.53 J	0.63 J	0.39 J	0.7 J	0.4 J	0.61 J	0.47 J	0.6 J
Vinyl Acetate	ug/m3	NA	2.1 U	2.5 U	2.1 U	2.5 U	2.1 U	2.5 U	2.1 U	2.5 U
Vinyl Chloride	ug/m3	1.9	0.077 U	0.089 U	0.077 U	0.089 U	0.077 U	0.089 U	0.077 U	0.089 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Table 4b.
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Large Retail		Post Treatment - Large Retail	
Location:		EW-Combined		PostCarbon	
Sample ID:		EW-Combined-030821	EW-Combined	Post Carbon-030821	Post Carbon
Sample Date:		3/8/2021	9/8/2021	3/8/2021	9/8/2021
Analyte	**Units**				
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	97	300	730	0.55 U
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	9	34	16	52
1,1-Dichloroethene	ug/m3	7.4	16	9.8	37
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
2-Butanone	ug/m3	12 U	1.2 J	12 U	12 U
2-Hexanone	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	9.5 U	9.5 U	6.8 J	9.5 U
Benzene	ug/m3	0.4	0.95	0.12 J	0.32 U
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.39 U
Carbon Disulfide	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U
Carbon Tetrachloride	ug/m3	0.63 U	0.44 J	0.63 U	0.63 U
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	0.6	5	3	0.58
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	4.6	22	17	40
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
Ethanol	ug/m3	10	53	9.7	2.3 J
Ethyl Acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	14 U	1.4 J	14 U
Isopropyl alcohol	ug/m3	9.8 U	9.8 U	9.8 U	5.7 J
m,p-Xylene	ug/m3	0.87 U	0.25 J	0.87 U	0.87 U
Methyl methacrylate	ug/m3		0.41 U		0.41 U
Methylene Chloride	ug/m3	3.5 U	3.5 U	14	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3	0.52 U		0.52 U	
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.43 U	0.38 J	0.43 U	0.43 U
Tetrachloroethene	ug/m3	17	150	1.9	1.2
Tetrahydrofuran	ug/m3	2.9 U	0.94 J	2.9 U	2.9 U
Toluene	ug/m3	0.28 J	1.1	0.23 J	0.45
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.58	0.41	0.86
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	43	440	600	0.63
Trichlorofluoromethane	ug/m3	36	190	50	280
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U
Vinyl Acetate	ug/m3	7 U	7 U	7 U	7 U
Vinyl Chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021

Checked By: BT, 11/4/2021

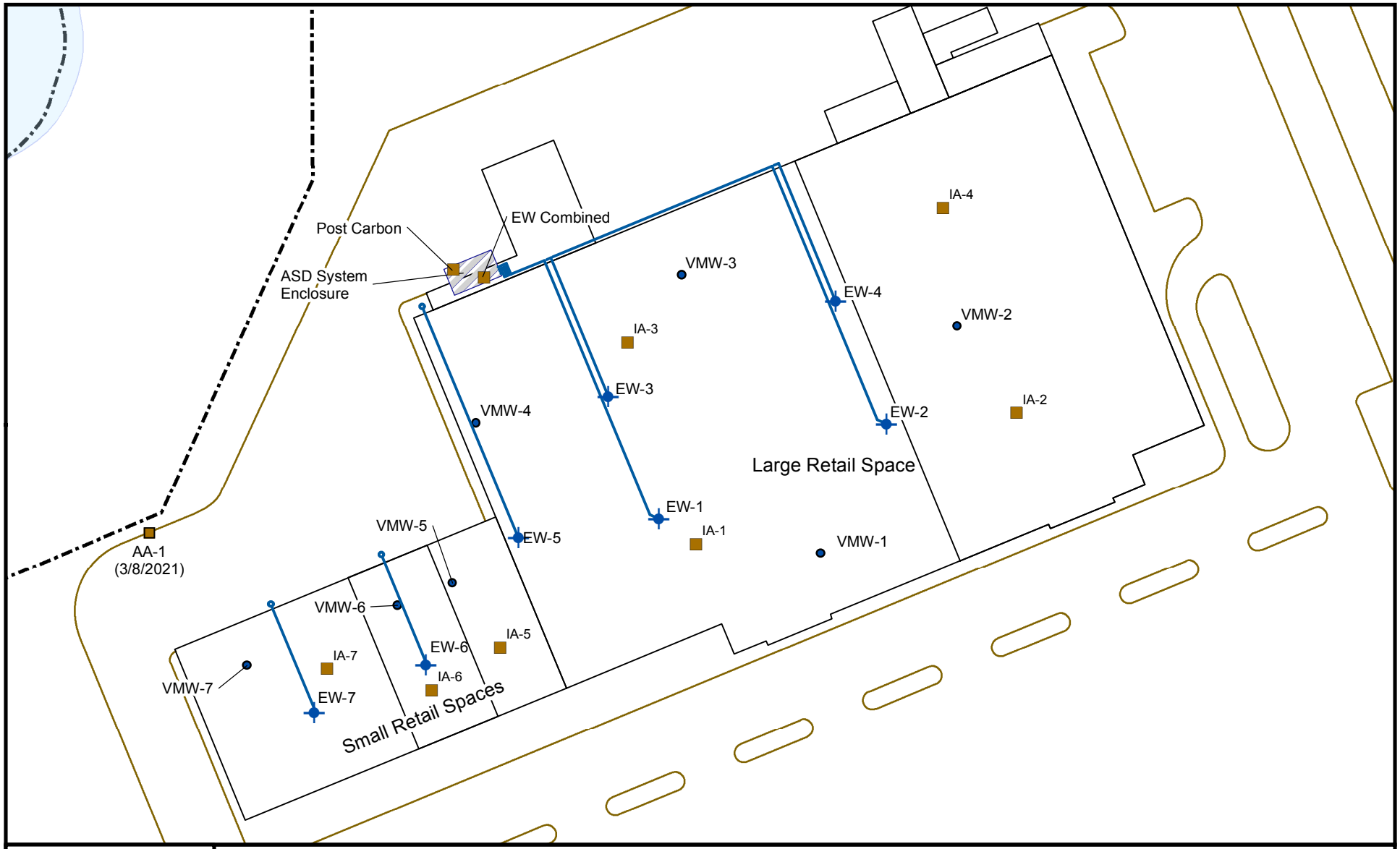
Table 5
Vacuum Monitoring Results - Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

	Pressure Differential (inches of water)			
Date	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
12/18/2015	-0.436	-0.495	-0.692	-0.181
2/20/2016	-0.49	-0.592	-0.804	-0.0225
8/5/2016	-0.542	-0.503	-0.746	-0.165
2/13/2017	-0.39	-0.602	-0.494	-0.206
9/6/2017	-0.593	-0.649	-0.031	-0.290
2/28/2018	-0.489	-0.677	-0.779	-0.241
9/12/2018	-0.512	-0.723	-0.477	-0.071
2/8/2019	-0.274	-0.633	-0.677	-0.229
4/11/2019	NM	-0.681	NM	NM
9/12/2019	-0.525	-0.68	-0.131	-0.267
2/14/2020	-0.564	-0.728	-0.003	-0.271
9/9/2020	-0.476	-0.659	-0.560	-0.251
3/8/2021	-0.461	-0.646	-0.742	-0.227
9/8/2021	-0.459	-0.572	-0.418	-0.080

* vacuum reduced at extraction wells
** ASD system offline
*** Due to Digital Manometer reading high range only at the time of measurement, readings are in hundredths of inches of water.
NM - not measured

Prepared by/Date: BPT 11/01/2021
Checked by/Date: JPK 1/4/2022

Figures



All locations are approximate.

N

0 30 60 Feet

Legend

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

Prepared/Date: EFG 04/08/21 | Checked/Date: MAM 04/08/21

Figure 1
Vapor Mitigation
Sample Locations

Former Gorham Manufacturing Facility
333 Adelaide Avenue
Providence, Rhode Island

Document: P:\old_Wakefield_Data\projects\TEXTRON\GORHAM\GIS\MapDocuments\StopShopVI.mxd

Appendix A

Laboratory Report

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A Pace Analytical® Laboratory

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

September 20, 2021

Gregory Avenia
WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824

Project Location: Providence, RI
Client Job Number:
Project Number: 365211036
Laboratory Work Order Number: 21I0397

Enclosed are results of analyses for samples received by the laboratory on September 9, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerry K. McGee
Project Manager

QA Officer
Katherine Allen

Laboratory Manager
Daren Damboragian

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

WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
ATTN: Gregory Avenia

REPORT DATE: 9/20/2021

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 365211036

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21I0397

The results of analyses performed on the following samples submitted to Con-Test, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Providence, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1	21I0397-01	Air		EPA TO-15	
IA-2	21I0397-02	Air		EPA TO-15	
IA-3	21I0397-03	Air		EPA TO-15	
IA-4	21I0397-04	Air		EPA TO-15	
IA-5	21I0397-05	Air		EPA TO-15	
IA-6	21I0397-06	Air		EPA TO-15	
IA-7	21I0397-07	Air		EPA TO-15	
AA-1	21I0397-08	Air		EPA TO-15	
EW-5	21I0397-09	Air		EPA TO-15	
EW-6	21I0397-10	Air		EPA TO-15	
EW-7	21I0397-11	Air		EPA TO-15	
EW-Combined	21I0397-12	Air		EPA TO-15	
Post Carbon	21I0397-13	Air		EPA TO-15	

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CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

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

Analyte & Samples(s) Qualified:

Ethyl Acetate, Hexachlorobutadiene

21I0397-01[IA-1], 21I0397-02[IA-2], 21I0397-03[IA-3], 21I0397-04[IA-4], 21I0397-05[IA-5], 21I0397-06[IA-6], 21I0397-07[IA-7], 21I0397-08[AA-1], 21I0397-09[EW-5], 21I0397-10[EW-6], 21I0397-11[EW-7], 21I0397-12[EW-Combined], 21I0397-13[Post Carbon], B290526-BLK1, B290526-BS1, B290526-DUP1

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:

1,1,1,2-Tetrachloroethane

21I0397-01[IA-1], 21I0397-02[IA-2], 21I0397-03[IA-3], 21I0397-04[IA-4], 21I0397-05[IA-5], 21I0397-06[IA-6], 21I0397-07[IA-7], 21I0397-08[AA-1], 21I0397-09[EW-5], 21I0397-10[EW-6], 21I0397-11[EW-7], 21I0397-12[EW-Combined], 21I0397-13[Post Carbon], B290526-BLK1, B290526-BS1, B290526-DUP1

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene

21I0397-01[IA-1], 21I0397-02[IA-2], 21I0397-03[IA-3], 21I0397-04[IA-4], 21I0397-05[IA-5], 21I0397-06[IA-6], 21I0397-07[IA-7], 21I0397-08[AA-1], 21I0397-09[EW-5], 21I0397-10[EW-6], 21I0397-11[EW-7], 21I0397-12[EW-Combined], 21I0397-13[Post Carbon], B290526-BLK1, B290526-BS1, B290526-DUP1, S063385-CCV1

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Hexachlorobutadiene

21I0397-01[IA-1], 21I0397-02[IA-2], 21I0397-03[IA-3], 21I0397-04[IA-4], 21I0397-05[IA-5], 21I0397-06[IA-6], 21I0397-07[IA-7], 21I0397-08[AA-1], 21I0397-09[EW-5], 21I0397-10[EW-6], 21I0397-11[EW-7], 21I0397-12[EW-Combined], 21I0397-13[Post Carbon], B290526-BLK1, B290526-BS1, B290526-DUP1, S063385-CCV1

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:

Ethyl Acetate

21I0397-01[IA-1], 21I0397-02[IA-2], 21I0397-03[IA-3], 21I0397-04[IA-4], 21I0397-05[IA-5], 21I0397-06[IA-6], 21I0397-07[IA-7], 21I0397-08[AA-1], 21I0397-09[EW-5], 21I0397-10[EW-6], 21I0397-11[EW-7], 21I0397-12[EW-Combined], 21I0397-13[Post Carbon], B290526-BLK1, B290526-BS1, B290526-DUP1, S063385-CCV1

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

Analyte & Samples(s) Qualified:

Vinyl Acetate

B290526-BS1, S063385-CCV1

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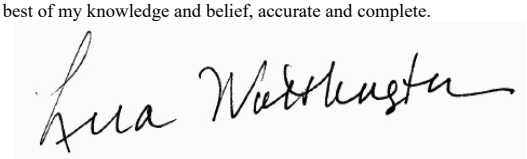
The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in 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.



Lisa A. Worthington
Technical Representative

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

ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-1
Sample ID: 21I0397-01
Sample Matrix: Air
Sampled: 9/8/2021 11:29

Sample Description/Location:
Sub Description/Location:
Canister ID: 2208
Canister Size: 6 liter
Flow Controller ID: 4206
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	7.8	1.4	0.84		19	3.3	2.0	0.698	9/17/21 12:59	BRF
Benzene	0.17	0.035	0.0084		0.55	0.11	0.027	0.698	9/17/21 12:59	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 12:59	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 12:59	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 12:59	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 12:59	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 12:59	BRF
2-Butanone (MEK)	1.4	1.4	0.12		4.2	4.1	0.34	0.698	9/17/21 12:59	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 12:59	BRF
Carbon Tetrachloride	0.070	0.035	0.011		0.44	0.22	0.066	0.698	9/17/21 12:59	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 12:59	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 12:59	BRF
Chloroform	0.027	0.035	0.0084	J	0.13	0.17	0.041	0.698	9/17/21 12:59	BRF
Chloromethane	0.65	0.070	0.014		1.3	0.14	0.030	0.698	9/17/21 12:59	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 12:59	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 12:59	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 12:59	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 12:59	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 12:59	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 12:59	BRF
Dichlorodifluoromethane (Freon 12)	0.48	0.035	0.011		2.4	0.17	0.053	0.698	9/17/21 12:59	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 12:59	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 12:59	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 12:59	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 12:59	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 12:59	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 12:59	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 12:59	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 12:59	BRF
Ethanol	58	20	6.1		110	38	11	10	9/17/21 13:24	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 12:59	BRF
Ethylbenzene	0.051	0.035	0.0090		0.22	0.15	0.039	0.698	9/17/21 12:59	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 12:59	BRF
Heptane	ND	0.035	0.014		ND	0.14	0.059	0.698	9/17/21 12:59	BRF
Hexachlorobutadiene	ND	0.035	0.019	V-05, L-03	ND	0.37	0.21	0.698	9/17/21 12:59	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 12:59	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 12:59	BRF
Isopropanol	1.3	1.4	0.32	J	3.2	3.4	0.79	0.698	9/17/21 12:59	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 12:59	BRF
Methylene Chloride	0.27	0.35	0.080	J	0.93	1.2	0.28	0.698	9/17/21 12:59	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 12:59	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 12:59	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 12:59	BRF
Styrene	0.024	0.035	0.011	J	0.10	0.15	0.047	0.698	9/17/21 12:59	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 12:59	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 12:59	BRF
Tetrachloroethylene	0.058	0.035	0.010		0.39	0.24	0.070	0.698	9/17/21 12:59	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-1
Sample ID: 21I0397-01
Sample Matrix: Air
Sampled: 9/8/2021 11:29

Sample Description/Location:
Sub Description/Location:
Canister ID: 2208
Canister Size: 6 liter
Flow Controller ID: 4206
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 12:59	BRF
Toluene	0.33	0.035	0.015		1.2	0.13	0.055	0.698	9/17/21 12:59	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 12:59	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 12:59	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 12:59	BRF
Trichloroethylene	0.024	0.035	0.013	J	0.13	0.19	0.069	0.698	9/17/21 12:59	BRF
Trichlorofluoromethane (Freon 11)	0.24	0.14	0.014		1.3	0.78	0.078	0.698	9/17/21 12:59	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.082	0.14	0.012	J	0.63	1.1	0.095	0.698	9/17/21 12:59	BRF
1,2,4-Trimethylbenzene	0.046	0.035	0.010		0.23	0.17	0.051	0.698	9/17/21 12:59	BRF
1,3,5-Trimethylbenzene	0.018	0.035	0.0096	J	0.089	0.17	0.047	0.698	9/17/21 12:59	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 12:59	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 12:59	BRF
m&p-Xylene	0.16	0.070	0.019		0.71	0.30	0.084	0.698	9/17/21 12:59	BRF
o-Xylene	0.059	0.035	0.0093		0.26	0.15	0.041	0.698	9/17/21 12:59	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.6	70-130	9/17/21 13:24
4-Bromofluorobenzene (1)	93.6	70-130	9/17/21 12:59
4-Bromofluorobenzene (2)	80.6	70-130	9/17/21 13:24
4-Bromofluorobenzene (2)	82.0	70-130	9/17/21 12:59

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-2
Sample ID: 21I0397-02
Sample Matrix: Air
Sampled: 9/8/2021 12:26

Sample Description/Location:
Sub Description/Location:
Canister ID: 1730
Canister Size: 6 liter
Flow Controller ID: 4177
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.6	1.4	0.84		16	3.3	2.0	0.698	9/17/21 13:56	BRF
Benzene	0.14	0.035	0.0084		0.45	0.11	0.027	0.698	9/17/21 13:56	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 13:56	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 13:56	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 13:56	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 13:56	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 13:56	BRF
2-Butanone (MEK)	0.86	1.4	0.12	J	2.5	4.1	0.34	0.698	9/17/21 13:56	BRF
Carbon Disulfide	0.12	0.35	0.089	J	0.37	1.1	0.28	0.698	9/17/21 13:56	BRF
Carbon Tetrachloride	0.068	0.035	0.011		0.43	0.22	0.066	0.698	9/17/21 13:56	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 13:56	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 13:56	BRF
Chloroform	0.043	0.035	0.0084		0.21	0.17	0.041	0.698	9/17/21 13:56	BRF
Chloromethane	0.73	0.070	0.014		1.5	0.14	0.030	0.698	9/17/21 13:56	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 13:56	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 13:56	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 13:56	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 13:56	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 13:56	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 13:56	BRF
Dichlorodifluoromethane (Freon 12)	0.47	0.035	0.011		2.3	0.17	0.053	0.698	9/17/21 13:56	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 13:56	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 13:56	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 13:56	BRF
cis-1,2-Dichloroethylene	0.032	0.035	0.012	J	0.13	0.14	0.047	0.698	9/17/21 13:56	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 13:56	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 13:56	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 13:56	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 13:56	BRF
Ethanol	28	1.4	0.42		53	2.6	0.80	0.698	9/17/21 13:56	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 13:56	BRF
Ethylbenzene	0.039	0.035	0.0090		0.17	0.15	0.039	0.698	9/17/21 13:56	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 13:56	BRF
Heptane	ND	0.035	0.014		ND	0.14	0.059	0.698	9/17/21 13:56	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 13:56	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 13:56	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 13:56	BRF
Isopropanol	0.81	1.4	0.32	J	2.0	3.4	0.79	0.698	9/17/21 13:56	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 13:56	BRF
Methylene Chloride	0.23	0.35	0.080	J	0.79	1.2	0.28	0.698	9/17/21 13:56	BRF
Methyl methacrylate	0.15	0.035	0.021		0.61	0.14	0.085	0.698	9/17/21 13:56	BRF
4-Methyl-2-pentanone (MIBK)	0.53	0.035	0.018		2.2	0.14	0.073	0.698	9/17/21 13:56	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 13:56	BRF
Styrene	0.12	0.035	0.011		0.51	0.15	0.047	0.698	9/17/21 13:56	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 13:56	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 13:56	BRF
Tetrachloroethylene	0.086	0.035	0.010		0.58	0.24	0.070	0.698	9/17/21 13:56	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-2
Sample ID: 21I0397-02
Sample Matrix: Air
Sampled: 9/8/2021 12:26

Sample Description/Location:
Sub Description/Location:
Canister ID: 1730
Canister Size: 6 liter
Flow Controller ID: 4177
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 13:56	BRF
Toluene	0.34	0.035	0.015		1.3	0.13	0.055	0.698	9/17/21 13:56	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 13:56	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 13:56	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 13:56	BRF
Trichloroethylene	0.040	0.035	0.013		0.22	0.19	0.069	0.698	9/17/21 13:56	BRF
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.014		1.3	0.78	0.078	0.698	9/17/21 13:56	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.091	0.14	0.012	J	0.70	1.1	0.095	0.698	9/17/21 13:56	BRF
1,2,4-Trimethylbenzene	0.046	0.035	0.010		0.23	0.17	0.051	0.698	9/17/21 13:56	BRF
1,3,5-Trimethylbenzene	0.019	0.035	0.0096	J	0.093	0.17	0.047	0.698	9/17/21 13:56	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 13:56	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 13:56	BRF
m&p-Xylene	0.13	0.070	0.019		0.55	0.30	0.084	0.698	9/17/21 13:56	BRF
o-Xylene	0.054	0.035	0.0093		0.23	0.15	0.041	0.698	9/17/21 13:56	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	94.9	70-130	9/17/21 13:56
4-Bromofluorobenzene (2)	82.0	70-130	9/17/21 13:56

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-3
Sample ID: 21I0397-03
Sample Matrix: Air
Sampled: 9/8/2021 11:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 1923
Canister Size: 6 liter
Flow Controller ID: 4315
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.8	1.4	0.84		16	3.3	2.0	0.698	9/17/21 14:54	BRF
Benzene	0.14	0.035	0.0084		0.46	0.11	0.027	0.698	9/17/21 14:54	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 14:54	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 14:54	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 14:54	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 14:54	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 14:54	BRF
2-Butanone (MEK)	0.99	1.4	0.12	J	2.9	4.1	0.34	0.698	9/17/21 14:54	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 14:54	BRF
Carbon Tetrachloride	0.069	0.035	0.011		0.43	0.22	0.066	0.698	9/17/21 14:54	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 14:54	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 14:54	BRF
Chloroform	0.033	0.035	0.0084	J	0.16	0.17	0.041	0.698	9/17/21 14:54	BRF
Chloromethane	0.59	0.070	0.014		1.2	0.14	0.030	0.698	9/17/21 14:54	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 14:54	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 14:54	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 14:54	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 14:54	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 14:54	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 14:54	BRF
Dichlorodifluoromethane (Freon 12)	0.49	0.035	0.011		2.4	0.17	0.053	0.698	9/17/21 14:54	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 14:54	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 14:54	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 14:54	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 14:54	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 14:54	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 14:54	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 14:54	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 14:54	BRF
Ethanol	56	20	6.1		110	38	11	10	9/17/21 15:19	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 14:54	BRF
Ethylbenzene	0.047	0.035	0.0090		0.21	0.15	0.039	0.698	9/17/21 14:54	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 14:54	BRF
Heptane	0.079	0.035	0.014		0.32	0.14	0.059	0.698	9/17/21 14:54	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 14:54	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 14:54	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 14:54	BRF
Isopropanol	1.2	1.4	0.32	J	3.0	3.4	0.79	0.698	9/17/21 14:54	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 14:54	BRF
Methylene Chloride	0.32	0.35	0.080	J	1.1	1.2	0.28	0.698	9/17/21 14:54	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 14:54	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 14:54	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 14:54	BRF
Styrene	0.022	0.035	0.011	J	0.095	0.15	0.047	0.698	9/17/21 14:54	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 14:54	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 14:54	BRF
Tetrachloroethylene	0.063	0.035	0.010		0.43	0.24	0.070	0.698	9/17/21 14:54	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-3
Sample ID: 21I0397-03
Sample Matrix: Air
Sampled: 9/8/2021 11:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 1923
Canister Size: 6 liter
Flow Controller ID: 4315
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -6.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 14:54	BRF
Toluene	0.34	0.035	0.015		1.3	0.13	0.055	0.698	9/17/21 14:54	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 14:54	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 14:54	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 14:54	BRF
Trichloroethylene	0.026	0.035	0.013	J	0.14	0.19	0.069	0.698	9/17/21 14:54	BRF
Trichlorofluoromethane (Freon 11)	0.24	0.14	0.014		1.4	0.78	0.078	0.698	9/17/21 14:54	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.080	0.14	0.012	J	0.61	1.1	0.095	0.698	9/17/21 14:54	BRF
1,2,4-Trimethylbenzene	0.049	0.035	0.010		0.24	0.17	0.051	0.698	9/17/21 14:54	BRF
1,3,5-Trimethylbenzene	0.020	0.035	0.0096	J	0.099	0.17	0.047	0.698	9/17/21 14:54	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 14:54	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 14:54	BRF
m&p-Xylene	0.14	0.070	0.019		0.61	0.30	0.084	0.698	9/17/21 14:54	BRF
o-Xylene	0.058	0.035	0.0093		0.25	0.15	0.041	0.698	9/17/21 14:54	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.6	70-130	9/17/21 15:19
4-Bromofluorobenzene (1)	95.2	70-130	9/17/21 14:54
4-Bromofluorobenzene (2)	81.3	70-130	9/17/21 15:19
4-Bromofluorobenzene (2)	84.2	70-130	9/17/21 14:54

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-4
Sample ID: 21I0397-04
Sample Matrix: Air
Sampled: 9/8/2021 12:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1831
Canister Size: 6 liter
Flow Controller ID: 4179
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.3	1.4	0.84		15	3.3	2.0	0.698	9/17/21 15:51	BRF
Benzene	0.13	0.035	0.0084		0.41	0.11	0.027	0.698	9/17/21 15:51	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 15:51	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 15:51	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 15:51	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 15:51	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 15:51	BRF
2-Butanone (MEK)	0.87	1.4	0.12	J	2.6	4.1	0.34	0.698	9/17/21 15:51	BRF
Carbon Disulfide	0.10	0.35	0.089	J	0.31	1.1	0.28	0.698	9/17/21 15:51	BRF
Carbon Tetrachloride	0.067	0.035	0.011		0.42	0.22	0.066	0.698	9/17/21 15:51	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 15:51	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 15:51	BRF
Chloroform	0.036	0.035	0.0084		0.18	0.17	0.041	0.698	9/17/21 15:51	BRF
Chloromethane	0.71	0.070	0.014		1.5	0.14	0.030	0.698	9/17/21 15:51	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 15:51	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 15:51	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 15:51	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 15:51	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 15:51	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 15:51	BRF
Dichlorodifluoromethane (Freon 12)	0.51	0.035	0.011		2.5	0.17	0.053	0.698	9/17/21 15:51	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 15:51	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 15:51	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 15:51	BRF
cis-1,2-Dichloroethylene	0.027	0.035	0.012	J	0.11	0.14	0.047	0.698	9/17/21 15:51	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 15:51	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 15:51	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 15:51	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 15:51	BRF
Ethanol	24	1.4	0.42		45	2.6	0.80	0.698	9/17/21 15:51	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 15:51	BRF
Ethylbenzene	0.037	0.035	0.0090		0.16	0.15	0.039	0.698	9/17/21 15:51	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 15:51	BRF
Heptane	0.051	0.035	0.014		0.21	0.14	0.059	0.698	9/17/21 15:51	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 15:51	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 15:51	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 15:51	BRF
Isopropanol	0.78	1.4	0.32	J	1.9	3.4	0.79	0.698	9/17/21 15:51	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 15:51	BRF
Methylene Chloride	0.21	0.35	0.080	J	0.74	1.2	0.28	0.698	9/17/21 15:51	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 15:51	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 15:51	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 15:51	BRF
Styrene	0.13	0.035	0.011		0.56	0.15	0.047	0.698	9/17/21 15:51	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 15:51	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 15:51	BRF
Tetrachloroethylene	0.076	0.035	0.010		0.52	0.24	0.070	0.698	9/17/21 15:51	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-4
Sample ID: 21I0397-04
Sample Matrix: Air
Sampled: 9/8/2021 12:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1831
Canister Size: 6 liter
Flow Controller ID: 4179
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -5
Receipt Vacuum(in Hg): -5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 15:51	BRF
Toluene	0.29	0.035	0.015		1.1	0.13	0.055	0.698	9/17/21 15:51	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 15:51	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 15:51	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 15:51	BRF
Trichloroethylene	0.040	0.035	0.013		0.21	0.19	0.069	0.698	9/17/21 15:51	BRF
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.014		1.3	0.78	0.078	0.698	9/17/21 15:51	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.079	0.14	0.012	J	0.60	1.1	0.095	0.698	9/17/21 15:51	BRF
1,2,4-Trimethylbenzene	0.042	0.035	0.010		0.21	0.17	0.051	0.698	9/17/21 15:51	BRF
1,3,5-Trimethylbenzene	0.017	0.035	0.0096	J	0.086	0.17	0.047	0.698	9/17/21 15:51	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 15:51	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 15:51	BRF
m&p-Xylene	0.11	0.070	0.019		0.50	0.30	0.084	0.698	9/17/21 15:51	BRF
o-Xylene	0.050	0.035	0.0093		0.22	0.15	0.041	0.698	9/17/21 15:51	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.8	70-130	9/17/21 15:51
4-Bromofluorobenzene (2)	81.0	70-130	9/17/21 15:51

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-5
Sample ID: 21I0397-05
Sample Matrix: Air
Sampled: 9/8/2021 09:22

Sample Description/Location:
Sub Description/Location:
Canister ID: 1951
Canister Size: 6 liter
Flow Controller ID: 4042
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -8
Receipt Vacuum(in Hg): -7.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	5.3	1.4	0.84		12	3.3	2.0	0.698	9/17/21 16:48	BRF
Benzene	0.13	0.035	0.0084		0.43	0.11	0.027	0.698	9/17/21 16:48	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 16:48	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 16:48	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 16:48	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 16:48	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 16:48	BRF
2-Butanone (MEK)	0.57	1.4	0.12	J	1.7	4.1	0.34	0.698	9/17/21 16:48	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 16:48	BRF
Carbon Tetrachloride	0.070	0.035	0.011		0.44	0.22	0.066	0.698	9/17/21 16:48	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 16:48	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 16:48	BRF
Chloroform	0.024	0.035	0.0084	J	0.12	0.17	0.041	0.698	9/17/21 16:48	BRF
Chloromethane	0.60	0.070	0.014		1.2	0.14	0.030	0.698	9/17/21 16:48	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 16:48	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 16:48	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 16:48	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 16:48	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 16:48	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 16:48	BRF
Dichlorodifluoromethane (Freon 12)	0.49	0.035	0.011		2.4	0.17	0.053	0.698	9/17/21 16:48	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 16:48	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 16:48	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 16:48	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 16:48	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 16:48	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 16:48	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 16:48	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 16:48	BRF
Ethanol	9.6	1.4	0.42		18	2.6	0.80	0.698	9/17/21 16:48	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 16:48	BRF
Ethylbenzene	0.042	0.035	0.0090		0.18	0.15	0.039	0.698	9/17/21 16:48	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 16:48	BRF
Heptane	0.051	0.035	0.014		0.21	0.14	0.059	0.698	9/17/21 16:48	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 16:48	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 16:48	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 16:48	BRF
Isopropanol	0.62	1.4	0.32	J	1.5	3.4	0.79	0.698	9/17/21 16:48	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 16:48	BRF
Methylene Chloride	0.12	0.35	0.080	J	0.41	1.2	0.28	0.698	9/17/21 16:48	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 16:48	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 16:48	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 16:48	BRF
Styrene	0.013	0.035	0.011	J	0.056	0.15	0.047	0.698	9/17/21 16:48	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 16:48	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 16:48	BRF
Tetrachloroethylene	0.031	0.035	0.010	J	0.21	0.24	0.070	0.698	9/17/21 16:48	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-5
Sample ID: 21I0397-05
Sample Matrix: Air
Sampled: 9/8/2021 09:22

Sample Description/Location:
Sub Description/Location:
Canister ID: 1951
Canister Size: 6 liter
Flow Controller ID: 4042
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -8
Receipt Vacuum(in Hg): -7.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 16:48	BRF
Toluene	0.29	0.035	0.015		1.1	0.13	0.055	0.698	9/17/21 16:48	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 16:48	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 16:48	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 16:48	BRF
Trichloroethylene	0.038	0.035	0.013		0.20	0.19	0.069	0.698	9/17/21 16:48	BRF
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.014		1.3	0.78	0.078	0.698	9/17/21 16:48	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.077	0.14	0.012	J	0.59	1.1	0.095	0.698	9/17/21 16:48	BRF
1,2,4-Trimethylbenzene	0.035	0.035	0.010		0.17	0.17	0.051	0.698	9/17/21 16:48	BRF
1,3,5-Trimethylbenzene	ND	0.035	0.0096		ND	0.17	0.047	0.698	9/17/21 16:48	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 16:48	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 16:48	BRF
m&p-Xylene	0.12	0.070	0.019		0.51	0.30	0.084	0.698	9/17/21 16:48	BRF
o-Xylene	0.040	0.035	0.0093		0.18	0.15	0.041	0.698	9/17/21 16:48	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.0	70-130	9/17/21 16:48
4-Bromofluorobenzene (2)	79.8	70-130	9/17/21 16:48

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-6
Sample ID: 21I0397-06
Sample Matrix: Air
Sampled: 9/8/2021 09:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1959
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -27
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -3.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.3	1.4	0.84		15	3.3	2.0	0.698	9/17/21 17:46	BRF
Benzene	0.24	0.035	0.0084		0.78	0.11	0.027	0.698	9/17/21 17:46	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 17:46	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 17:46	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 17:46	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 17:46	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 17:46	BRF
2-Butanone (MEK)	0.53	1.4	0.12	J	1.6	4.1	0.34	0.698	9/17/21 17:46	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 17:46	BRF
Carbon Tetrachloride	0.064	0.035	0.011		0.40	0.22	0.066	0.698	9/17/21 17:46	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 17:46	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 17:46	BRF
Chloroform	ND	0.035	0.0084		ND	0.17	0.041	0.698	9/17/21 17:46	BRF
Chloromethane	0.64	0.070	0.014		1.3	0.14	0.030	0.698	9/17/21 17:46	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 17:46	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 17:46	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 17:46	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 17:46	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 17:46	BRF
1,4-Dichlorobenzene	0.033	0.035	0.014	J	0.20	0.21	0.085	0.698	9/17/21 17:46	BRF
Dichlorodifluoromethane (Freon 12)	0.49	0.035	0.011		2.4	0.17	0.053	0.698	9/17/21 17:46	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 17:46	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 17:46	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 17:46	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 17:46	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 17:46	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 17:46	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 17:46	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 17:46	BRF
Ethanol	76	20	6.1		140	38	11	10	9/17/21 18:11	BRF
Ethyl Acetate	7.5	0.35	0.21	L-03, V-34	27	1.3	0.75	0.698	9/17/21 17:46	BRF
Ethylbenzene	0.054	0.035	0.0090		0.24	0.15	0.039	0.698	9/17/21 17:46	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 17:46	BRF
Heptane	0.12	0.035	0.014		0.51	0.14	0.059	0.698	9/17/21 17:46	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 17:46	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 17:46	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 17:46	BRF
Isopropanol	1.3	1.4	0.32	J	3.2	3.4	0.79	0.698	9/17/21 17:46	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 17:46	BRF
Methylene Chloride	0.68	0.35	0.080		2.4	1.2	0.28	0.698	9/17/21 17:46	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 17:46	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 17:46	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 17:46	BRF
Styrene	0.051	0.035	0.011		0.22	0.15	0.047	0.698	9/17/21 17:46	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 17:46	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 17:46	BRF
Tetrachloroethylene	0.050	0.035	0.010		0.34	0.24	0.070	0.698	9/17/21 17:46	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-6
Sample ID: 21I0397-06
Sample Matrix: Air
Sampled: 9/8/2021 09:24

Sample Description/Location:
Sub Description/Location:
Canister ID: 1959
Canister Size: 6 liter
Flow Controller ID: 4280
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -27
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -3.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 17:46	BRF
Toluene	0.65	0.035	0.015		2.4	0.13	0.055	0.698	9/17/21 17:46	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 17:46	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 17:46	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 17:46	BRF
Trichloroethylene	0.029	0.035	0.013	J	0.16	0.19	0.069	0.698	9/17/21 17:46	BRF
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.014		1.3	0.78	0.078	0.698	9/17/21 17:46	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.087	0.14	0.012	J	0.67	1.1	0.095	0.698	9/17/21 17:46	BRF
1,2,4-Trimethylbenzene	0.051	0.035	0.010		0.25	0.17	0.051	0.698	9/17/21 17:46	BRF
1,3,5-Trimethylbenzene	0.018	0.035	0.0096	J	0.089	0.17	0.047	0.698	9/17/21 17:46	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 17:46	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 17:46	BRF
m&p-Xylene	0.15	0.070	0.019		0.65	0.30	0.084	0.698	9/17/21 17:46	BRF
o-Xylene	0.065	0.035	0.0093		0.28	0.15	0.041	0.698	9/17/21 17:46	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.5	70-130	9/17/21 18:11
4-Bromofluorobenzene (1)	95.7	70-130	9/17/21 17:46
4-Bromofluorobenzene (2)	80.2	70-130	9/17/21 18:11
4-Bromofluorobenzene (2)	83.6	70-130	9/17/21 17:46

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-7
Sample ID: 21I0397-07
Sample Matrix: Air
Sampled: 9/8/2021 10:14

Sample Description/Location:
Sub Description/Location:
Canister ID: 1931
Canister Size: 6 liter
Flow Controller ID: 4205
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -2
Receipt Vacuum(in Hg): -1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	5.3	1.4	0.84		13	3.3	2.0	0.698	9/17/21 18:43	BRF
Benzene	0.13	0.035	0.0084		0.43	0.11	0.027	0.698	9/17/21 18:43	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 18:43	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 18:43	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 18:43	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 18:43	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 18:43	BRF
2-Butanone (MEK)	0.51	1.4	0.12	J	1.5	4.1	0.34	0.698	9/17/21 18:43	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 18:43	BRF
Carbon Tetrachloride	0.063	0.035	0.011		0.40	0.22	0.066	0.698	9/17/21 18:43	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 18:43	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 18:43	BRF
Chloroform	ND	0.035	0.0084		ND	0.17	0.041	0.698	9/17/21 18:43	BRF
Chloromethane	0.59	0.070	0.014		1.2	0.14	0.030	0.698	9/17/21 18:43	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 18:43	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 18:43	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 18:43	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 18:43	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 18:43	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 18:43	BRF
Dichlorodifluoromethane (Freon 12)	0.47	0.035	0.011		2.3	0.17	0.053	0.698	9/17/21 18:43	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 18:43	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 18:43	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 18:43	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 18:43	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 18:43	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 18:43	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 18:43	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 18:43	BRF
Ethanol	78	20	6.1		150	38	11	10	9/17/21 19:08	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 18:43	BRF
Ethylbenzene	0.040	0.035	0.0090		0.18	0.15	0.039	0.698	9/17/21 18:43	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 18:43	BRF
Heptane	0.055	0.035	0.014		0.23	0.14	0.059	0.698	9/17/21 18:43	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 18:43	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 18:43	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 18:43	BRF
Isopropanol	2.5	1.4	0.32		6.1	3.4	0.79	0.698	9/17/21 18:43	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 18:43	BRF
Methylene Chloride	0.17	0.35	0.080	J	0.57	1.2	0.28	0.698	9/17/21 18:43	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 18:43	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 18:43	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 18:43	BRF
Styrene	0.019	0.035	0.011	J	0.080	0.15	0.047	0.698	9/17/21 18:43	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 18:43	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 18:43	BRF
Tetrachloroethylene	0.11	0.035	0.010		0.74	0.24	0.070	0.698	9/17/21 18:43	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: IA-7
Sample ID: 21I0397-07
Sample Matrix: Air
Sampled: 9/8/2021 10:14

Sample Description/Location:
Sub Description/Location:
Canister ID: 1931
Canister Size: 6 liter
Flow Controller ID: 4205
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -28
Final Vacuum(in Hg): -2
Receipt Vacuum(in Hg): -1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 18:43	BRF
Toluene	0.29	0.035	0.015		1.1	0.13	0.055	0.698	9/17/21 18:43	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 18:43	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 18:43	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 18:43	BRF
Trichloroethylene	0.024	0.035	0.013	J	0.13	0.19	0.069	0.698	9/17/21 18:43	BRF
Trichlorofluoromethane (Freon 11)	0.21	0.14	0.014		1.2	0.78	0.078	0.698	9/17/21 18:43	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.082	0.14	0.012	J	0.63	1.1	0.095	0.698	9/17/21 18:43	BRF
1,2,4-Trimethylbenzene	0.036	0.035	0.010		0.17	0.17	0.051	0.698	9/17/21 18:43	BRF
1,3,5-Trimethylbenzene	0.012	0.035	0.0096	J	0.058	0.17	0.047	0.698	9/17/21 18:43	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 18:43	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 18:43	BRF
m&p-Xylene	0.11	0.070	0.019		0.47	0.30	0.084	0.698	9/17/21 18:43	BRF
o-Xylene	0.047	0.035	0.0093		0.20	0.15	0.041	0.698	9/17/21 18:43	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.8	70-130	9/17/21 18:43
4-Bromofluorobenzene (1)	91.8	70-130	9/17/21 19:08
4-Bromofluorobenzene (2)	81.3	70-130	9/17/21 18:43
4-Bromofluorobenzene (2)	78.4	70-130	9/17/21 19:08

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: AA-1
Sample ID: 21I0397-08
Sample Matrix: Air
Sampled: 9/8/2021 12:52

Sample Description/Location:
Sub Description/Location:
Canister ID: 1943
Canister Size: 6 liter
Flow Controller ID: 4194
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	4.6	1.4	0.84		11	3.3	2.0	0.698	9/17/21 19:40	BRF
Benzene	0.16	0.035	0.0084		0.51	0.11	0.027	0.698	9/17/21 19:40	BRF
Benzyl chloride	ND	0.035	0.016		ND	0.18	0.081	0.698	9/17/21 19:40	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.23	0.085	0.698	9/17/21 19:40	BRF
Bromoform	ND	0.035	0.013		ND	0.36	0.13	0.698	9/17/21 19:40	BRF
Bromomethane	ND	0.035	0.028		ND	0.14	0.11	0.698	9/17/21 19:40	BRF
1,3-Butadiene	ND	0.035	0.024		ND	0.077	0.054	0.698	9/17/21 19:40	BRF
2-Butanone (MEK)	0.57	1.4	0.12	J	1.7	4.1	0.34	0.698	9/17/21 19:40	BRF
Carbon Disulfide	ND	0.35	0.089		ND	1.1	0.28	0.698	9/17/21 19:40	BRF
Carbon Tetrachloride	0.068	0.035	0.011		0.43	0.22	0.066	0.698	9/17/21 19:40	BRF
Chlorobenzene	ND	0.035	0.010		ND	0.16	0.048	0.698	9/17/21 19:40	BRF
Chloroethane	ND	0.035	0.025		ND	0.092	0.067	0.698	9/17/21 19:40	BRF
Chloroform	0.018	0.035	0.0084	J	0.089	0.17	0.041	0.698	9/17/21 19:40	BRF
Chloromethane	0.58	0.070	0.014		1.2	0.14	0.030	0.698	9/17/21 19:40	BRF
Cyclohexane	ND	0.035	0.023		ND	0.12	0.079	0.698	9/17/21 19:40	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.100	0.698	9/17/21 19:40	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.0098		ND	0.27	0.075	0.698	9/17/21 19:40	BRF
1,2-Dichlorobenzene	ND	0.035	0.013		ND	0.21	0.078	0.698	9/17/21 19:40	BRF
1,3-Dichlorobenzene	ND	0.035	0.0084		ND	0.21	0.051	0.698	9/17/21 19:40	BRF
1,4-Dichlorobenzene	ND	0.035	0.014		ND	0.21	0.085	0.698	9/17/21 19:40	BRF
Dichlorodifluoromethane (Freon 12)	0.48	0.035	0.011		2.4	0.17	0.053	0.698	9/17/21 19:40	BRF
1,1-Dichloroethane	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 19:40	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.052	0.698	9/17/21 19:40	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.054	0.698	9/17/21 19:40	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.047	0.698	9/17/21 19:40	BRF
trans-1,2-Dichloroethylene	ND	0.035	0.012		ND	0.14	0.048	0.698	9/17/21 19:40	BRF
1,2-Dichloropropane	ND	0.035	0.013		ND	0.16	0.058	0.698	9/17/21 19:40	BRF
cis-1,3-Dichloropropene	ND	0.035	0.016		ND	0.16	0.073	0.698	9/17/21 19:40	BRF
trans-1,3-Dichloropropene	ND	0.035	0.011		ND	0.16	0.049	0.698	9/17/21 19:40	BRF
Ethanol	4.0	1.4	0.42		7.4	2.6	0.80	0.698	9/17/21 19:40	BRF
Ethyl Acetate	ND	0.35	0.21	L-03, V-34	ND	1.3	0.75	0.698	9/17/21 19:40	BRF
Ethylbenzene	0.040	0.035	0.0090		0.18	0.15	0.039	0.698	9/17/21 19:40	BRF
4-Ethyltoluene	ND	0.035	0.011		ND	0.17	0.053	0.698	9/17/21 19:40	BRF
Heptane	0.043	0.035	0.014		0.18	0.14	0.059	0.698	9/17/21 19:40	BRF
Hexachlorobutadiene	ND	0.035	0.019	L-03, V-05	ND	0.37	0.21	0.698	9/17/21 19:40	BRF
Hexane	ND	1.4	0.11		ND	4.9	0.40	0.698	9/17/21 19:40	BRF
2-Hexanone (MBK)	ND	0.070	0.018		ND	0.29	0.072	0.698	9/17/21 19:40	BRF
Isopropanol	ND	1.4	0.32		ND	3.4	0.79	0.698	9/17/21 19:40	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.014		ND	0.13	0.050	0.698	9/17/21 19:40	BRF
Methylene Chloride	0.11	0.35	0.080	J	0.38	1.2	0.28	0.698	9/17/21 19:40	BRF
Methyl methacrylate	ND	0.035	0.021		ND	0.14	0.085	0.698	9/17/21 19:40	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.018		ND	0.14	0.073	0.698	9/17/21 19:40	BRF
Propene	ND	1.4	0.12		ND	2.4	0.20	0.698	9/17/21 19:40	BRF
Styrene	ND	0.035	0.011		ND	0.15	0.047	0.698	9/17/21 19:40	BRF
1,1,1,2-Tetrachloroethane	ND	0.063	0.023	L-05	ND	0.44	0.16	0.698	9/17/21 19:40	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.011		ND	0.24	0.073	0.698	9/17/21 19:40	BRF
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.070	0.698	9/17/21 19:40	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: AA-1
Sample ID: 21I0397-08
Sample Matrix: Air
Sampled: 9/8/2021 12:52

Sample Description/Location:
Sub Description/Location:
Canister ID: 1943
Canister Size: 6 liter
Flow Controller ID: 4194
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	0.35	0.086		ND	1.0	0.25	0.698	9/17/21 19:40	BRF
Toluene	0.23	0.035	0.015		0.86	0.13	0.055	0.698	9/17/21 19:40	BRF
1,2,4-Trichlorobenzene	ND	0.070	0.024	V-04	ND	0.52	0.18	0.698	9/17/21 19:40	BRF
1,1,1-Trichloroethane	ND	0.035	0.016		ND	0.19	0.088	0.698	9/17/21 19:40	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.076	0.698	9/17/21 19:40	BRF
Trichloroethylene	ND	0.035	0.013		ND	0.19	0.069	0.698	9/17/21 19:40	BRF
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.014		1.2	0.78	0.078	0.698	9/17/21 19:40	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.077	0.14	0.012	J	0.59	1.1	0.095	0.698	9/17/21 19:40	BRF
1,2,4-Trimethylbenzene	0.035	0.035	0.010		0.17	0.17	0.051	0.698	9/17/21 19:40	BRF
1,3,5-Trimethylbenzene	0.012	0.035	0.0096	J	0.058	0.17	0.047	0.698	9/17/21 19:40	BRF
Vinyl Acetate	ND	0.70	0.065		ND	2.5	0.23	0.698	9/17/21 19:40	BRF
Vinyl Chloride	ND	0.035	0.014		ND	0.089	0.035	0.698	9/17/21 19:40	BRF
m&p-Xylene	0.091	0.070	0.019		0.40	0.30	0.084	0.698	9/17/21 19:40	BRF
o-Xylene	0.036	0.035	0.0093		0.15	0.15	0.041	0.698	9/17/21 19:40	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.4	70-130	9/17/21 19:40
4-Bromofluorobenzene (2)	79.5	70-130	9/17/21 19:40

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-5
Sample ID: 21I0397-09
Sample Matrix: Air
Sampled: 9/8/2021 11:36

Sample Description/Location:
Sub Description/Location:
Canister ID: 1115
Canister Size: 6 liter
Flow Controller ID: 4285
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.9	4.0	2.4		16	9.5	5.7	2	9/17/21 20:32	BRF
Benzene	0.14	0.10	0.024		0.46	0.32	0.077	2	9/17/21 20:32	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	9/17/21 20:32	BRF
Bromodichloromethane	ND	0.10	0.036		ND	0.67	0.24	2	9/17/21 20:32	BRF
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	9/17/21 20:32	BRF
Bromomethane	ND	0.10	0.082		ND	0.39	0.32	2	9/17/21 20:32	BRF
1,3-Butadiene	ND	0.10	0.070		ND	0.22	0.15	2	9/17/21 20:32	BRF
2-Butanone (MEK)	1.2	4.0	0.33	J	3.5	12	0.98	2	9/17/21 20:32	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	9/17/21 20:32	BRF
Carbon Tetrachloride	0.068	0.10	0.030	J	0.43	0.63	0.19	2	9/17/21 20:32	BRF
Chlorobenzene	ND	0.10	0.030		ND	0.46	0.14	2	9/17/21 20:32	BRF
Chloroethane	ND	0.10	0.073		ND	0.26	0.19	2	9/17/21 20:32	BRF
Chloroform	0.034	0.10	0.024	J	0.17	0.49	0.12	2	9/17/21 20:32	BRF
Chloromethane	0.69	0.20	0.041		1.4	0.41	0.085	2	9/17/21 20:32	BRF
Cyclohexane	ND	0.10	0.066		ND	0.34	0.23	2	9/17/21 20:32	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	9/17/21 20:32	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77	0.22	2	9/17/21 20:32	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	9/17/21 20:32	BRF
1,3-Dichlorobenzene	ND	0.10	0.024		ND	0.60	0.15	2	9/17/21 20:32	BRF
1,4-Dichlorobenzene	ND	0.10	0.041		ND	0.60	0.24	2	9/17/21 20:32	BRF
Dichlorodifluoromethane (Freon 12)	0.51	0.10	0.031		2.5	0.49	0.15	2	9/17/21 20:32	BRF
1,1-Dichloroethane	ND	0.10	0.034		ND	0.40	0.14	2	9/17/21 20:32	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	9/17/21 20:32	BRF
1,1-Dichloroethylene	ND	0.10	0.039		ND	0.40	0.16	2	9/17/21 20:32	BRF
cis-1,2-Dichloroethylene	ND	0.10	0.034		ND	0.40	0.13	2	9/17/21 20:32	BRF
trans-1,2-Dichloroethylene	ND	0.10	0.035		ND	0.40	0.14	2	9/17/21 20:32	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	9/17/21 20:32	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	9/17/21 20:32	BRF
trans-1,3-Dichloropropene	ND	0.10	0.031		ND	0.45	0.14	2	9/17/21 20:32	BRF
Ethanol	50	4.0	1.2		94	7.5	2.3	2	9/17/21 20:32	BRF
Ethyl Acetate	ND	1.0	0.59	L-03, V-34	ND	3.6	2.1	2	9/17/21 20:32	BRF
Ethylbenzene	0.040	0.10	0.026	J	0.17	0.43	0.11	2	9/17/21 20:32	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 20:32	BRF
Heptane	ND	0.10	0.041		ND	0.41	0.17	2	9/17/21 20:32	BRF
Hexachlorobutadiene	ND	0.10	0.056	L-03, V-05	ND	1.1	0.59	2	9/17/21 20:32	BRF
Hexane	ND	4.0	0.33		ND	14	1.2	2	9/17/21 20:32	BRF
2-Hexanone (MBK)	ND	0.20	0.050		ND	0.82	0.21	2	9/17/21 20:32	BRF
Isopropanol	1.1	4.0	0.92	J	2.7	9.8	2.3	2	9/17/21 20:32	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	9/17/21 20:32	BRF
Methylene Chloride	0.26	1.0	0.23	J	0.90	3.5	0.80	2	9/17/21 20:32	BRF
Methyl methacrylate	ND	0.10	0.059		ND	0.41	0.24	2	9/17/21 20:32	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.051		ND	0.41	0.21	2	9/17/21 20:32	BRF
Propene	ND	4.0	0.33		ND	6.9	0.58	2	9/17/21 20:32	BRF
Styrene	0.034	0.10	0.032	J	0.14	0.43	0.13	2	9/17/21 20:32	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066	L-05	ND	1.2	0.45	2	9/17/21 20:32	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.031		ND	0.69	0.21	2	9/17/21 20:32	BRF
Tetrachloroethylene	0.082	0.10	0.030	J	0.56	0.68	0.20	2	9/17/21 20:32	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-5
Sample ID: 21I0397-09
Sample Matrix: Air
Sampled: 9/8/2021 11:36

Sample Description/Location:
Sub Description/Location:
Canister ID: 1115
Canister Size: 6 liter
Flow Controller ID: 4285
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -4.6
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	1.0	0.25		ND	2.9	0.73	2	9/17/21 20:32	BRF
Toluene	0.38	0.10	0.042		1.4	0.38	0.16	2	9/17/21 20:32	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.070	V-04	ND	1.5	0.52	2	9/17/21 20:32	BRF
1,1,1-Trichloroethane	ND	0.10	0.046		ND	0.55	0.25	2	9/17/21 20:32	BRF
1,1,2-Trichloroethane	ND	0.10	0.040		ND	0.55	0.22	2	9/17/21 20:32	BRF
Trichloroethylene	ND	0.10	0.037		ND	0.54	0.20	2	9/17/21 20:32	BRF
Trichlorofluoromethane (Freon 11)	0.23	0.40	0.040	J	1.3	2.2	0.22	2	9/17/21 20:32	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.090	0.40	0.035	J	0.69	3.1	0.27	2	9/17/21 20:32	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.030		ND	0.49	0.15	2	9/17/21 20:32	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.027		ND	0.49	0.13	2	9/17/21 20:32	BRF
Vinyl Acetate	ND	2.0	0.19		ND	7.0	0.66	2	9/17/21 20:32	BRF
Vinyl Chloride	ND	0.10	0.040		ND	0.26	0.10	2	9/17/21 20:32	BRF
m&p-Xylene	0.14	0.20	0.055	J	0.59	0.87	0.24	2	9/17/21 20:32	BRF
o-Xylene	0.056	0.10	0.027	J	0.24	0.43	0.12	2	9/17/21 20:32	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.8	70-130	9/17/21 20:32
4-Bromofluorobenzene (2)	80.1	70-130	9/17/21 20:32

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-6
Sample ID: 21I0397-10
Sample Matrix: Air
Sampled: 9/8/2021 10:08

Sample Description/Location:
Sub Description/Location:
Canister ID: 1457
Canister Size: 6 liter
Flow Controller ID: 4303
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -2
Receipt Vacuum(in Hg): -1.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	15	4.0	2.4		35	9.5	5.7	2	9/17/21 21:23	BRF
Benzene	0.45	0.10	0.024		1.4	0.32	0.077	2	9/17/21 21:23	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	9/17/21 21:23	BRF
Bromodichloromethane	ND	0.10	0.036		ND	0.67	0.24	2	9/17/21 21:23	BRF
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	9/17/21 21:23	BRF
Bromomethane	ND	0.10	0.082		ND	0.39	0.32	2	9/17/21 21:23	BRF
1,3-Butadiene	ND	0.10	0.070		ND	0.22	0.15	2	9/17/21 21:23	BRF
2-Butanone (MEK)	1.4	4.0	0.33	J	4.2	12	0.98	2	9/17/21 21:23	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	9/17/21 21:23	BRF
Carbon Tetrachloride	0.068	0.10	0.030	J	0.43	0.63	0.19	2	9/17/21 21:23	BRF
Chlorobenzene	ND	0.10	0.030		ND	0.46	0.14	2	9/17/21 21:23	BRF
Chloroethane	ND	0.10	0.073		ND	0.26	0.19	2	9/17/21 21:23	BRF
Chloroform	ND	0.10	0.024		ND	0.49	0.12	2	9/17/21 21:23	BRF
Chloromethane	0.70	0.20	0.041		1.4	0.41	0.085	2	9/17/21 21:23	BRF
Cyclohexane	ND	0.10	0.066		ND	0.34	0.23	2	9/17/21 21:23	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	9/17/21 21:23	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77	0.22	2	9/17/21 21:23	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	9/17/21 21:23	BRF
1,3-Dichlorobenzene	ND	0.10	0.024		ND	0.60	0.15	2	9/17/21 21:23	BRF
1,4-Dichlorobenzene	ND	0.10	0.041		ND	0.60	0.24	2	9/17/21 21:23	BRF
Dichlorodifluoromethane (Freon 12)	0.48	0.10	0.031		2.4	0.49	0.15	2	9/17/21 21:23	BRF
1,1-Dichloroethane	ND	0.10	0.034		ND	0.40	0.14	2	9/17/21 21:23	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	9/17/21 21:23	BRF
1,1-Dichloroethylene	ND	0.10	0.039		ND	0.40	0.16	2	9/17/21 21:23	BRF
cis-1,2-Dichloroethylene	ND	0.10	0.034		ND	0.40	0.13	2	9/17/21 21:23	BRF
trans-1,2-Dichloroethylene	ND	0.10	0.035		ND	0.40	0.14	2	9/17/21 21:23	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	9/17/21 21:23	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	9/17/21 21:23	BRF
trans-1,3-Dichloropropene	ND	0.10	0.031		ND	0.45	0.14	2	9/17/21 21:23	BRF
Ethanol	88	4.0	1.2		170	7.5	2.3	2	9/17/21 21:23	BRF
Ethyl Acetate	ND	1.0	0.59	L-03, V-34	ND	3.6	2.1	2	9/17/21 21:23	BRF
Ethylbenzene	0.050	0.10	0.026	J	0.22	0.43	0.11	2	9/17/21 21:23	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 21:23	BRF
Heptane	ND	0.10	0.041		ND	0.41	0.17	2	9/17/21 21:23	BRF
Hexachlorobutadiene	ND	0.10	0.056	L-03, V-05	ND	1.1	0.59	2	9/17/21 21:23	BRF
Hexane	ND	4.0	0.33		ND	14	1.2	2	9/17/21 21:23	BRF
2-Hexanone (MBK)	ND	0.20	0.050		ND	0.82	0.21	2	9/17/21 21:23	BRF
Isopropanol	1.2	4.0	0.92	J	3.0	9.8	2.3	2	9/17/21 21:23	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	9/17/21 21:23	BRF
Methylene Chloride	0.29	1.0	0.23	J	1.0	3.5	0.80	2	9/17/21 21:23	BRF
Methyl methacrylate	ND	0.10	0.059		ND	0.41	0.24	2	9/17/21 21:23	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.051		ND	0.41	0.21	2	9/17/21 21:23	BRF
Propene	ND	4.0	0.33		ND	6.9	0.58	2	9/17/21 21:23	BRF
Styrene	0.036	0.10	0.032	J	0.15	0.43	0.13	2	9/17/21 21:23	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066	L-05	ND	1.2	0.45	2	9/17/21 21:23	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.031		ND	0.69	0.21	2	9/17/21 21:23	BRF
Tetrachloroethylene	0.040	0.10	0.030	J	0.27	0.68	0.20	2	9/17/21 21:23	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-6
Sample ID: 21I0397-10
Sample Matrix: Air
Sampled: 9/8/2021 10:08

Sample Description/Location:
Sub Description/Location:
Canister ID: 1457
Canister Size: 6 liter
Flow Controller ID: 4303
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -2
Receipt Vacuum(in Hg): -1.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	0.50	1.0	0.25	J	1.5	2.9	0.73	2	9/17/21 21:23	BRF
Toluene	0.50	0.10	0.042		1.9	0.38	0.16	2	9/17/21 21:23	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.070	V-04	ND	1.5	0.52	2	9/17/21 21:23	BRF
1,1,1-Trichloroethane	ND	0.10	0.046		ND	0.55	0.25	2	9/17/21 21:23	BRF
1,1,2-Trichloroethane	ND	0.10	0.040		ND	0.55	0.22	2	9/17/21 21:23	BRF
Trichloroethylene	ND	0.10	0.037		ND	0.54	0.20	2	9/17/21 21:23	BRF
Trichlorofluoromethane (Freon 11)	0.24	0.40	0.040	J	1.3	2.2	0.22	2	9/17/21 21:23	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.084	0.40	0.035	J	0.64	3.1	0.27	2	9/17/21 21:23	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.030		ND	0.49	0.15	2	9/17/21 21:23	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.027		ND	0.49	0.13	2	9/17/21 21:23	BRF
Vinyl Acetate	ND	2.0	0.19		ND	7.0	0.66	2	9/17/21 21:23	BRF
Vinyl Chloride	ND	0.10	0.040		ND	0.26	0.10	2	9/17/21 21:23	BRF
m&p-Xylene	0.13	0.20	0.055	J	0.56	0.87	0.24	2	9/17/21 21:23	BRF
o-Xylene	0.056	0.10	0.027	J	0.24	0.43	0.12	2	9/17/21 21:23	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.9	70-130	9/17/21 21:23
4-Bromofluorobenzene (2)	79.2	70-130	9/17/21 21:23

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-7
Sample ID: 21I0397-11
Sample Matrix: Air
Sampled: 9/8/2021 10:23

Sample Description/Location:
Sub Description/Location:
Canister ID: 1934
Canister Size: 6 liter
Flow Controller ID: 4210
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -10
Receipt Vacuum(in Hg): -5.9
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	3.3	4.0	2.4	J	7.8	9.5	5.7	2	9/17/21 22:40	BRF
Benzene	0.21	0.10	0.024		0.66	0.32	0.077	2	9/17/21 22:40	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	9/17/21 22:40	BRF
Bromodichloromethane	ND	0.10	0.036		ND	0.67	0.24	2	9/17/21 22:40	BRF
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	9/17/21 22:40	BRF
Bromomethane	ND	0.10	0.082		ND	0.39	0.32	2	9/17/21 22:40	BRF
1,3-Butadiene	ND	0.10	0.070		ND	0.22	0.15	2	9/17/21 22:40	BRF
2-Butanone (MEK)	8.5	4.0	0.33		25	12	0.98	2	9/17/21 22:40	BRF
Carbon Disulfide	21	1.0	0.25		66	3.1	0.79	2	9/17/21 22:40	BRF
Carbon Tetrachloride	0.070	0.10	0.030	J	0.44	0.63	0.19	2	9/17/21 22:40	BRF
Chlorobenzene	ND	0.10	0.030		ND	0.46	0.14	2	9/17/21 22:40	BRF
Chloroethane	ND	0.10	0.073		ND	0.26	0.19	2	9/17/21 22:40	BRF
Chloroform	0.53	0.10	0.024		2.6	0.49	0.12	2	9/17/21 22:40	BRF
Chloromethane	ND	0.20	0.041		ND	0.41	0.085	2	9/17/21 22:40	BRF
Cyclohexane	ND	0.10	0.066		ND	0.34	0.23	2	9/17/21 22:40	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	9/17/21 22:40	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77	0.22	2	9/17/21 22:40	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	9/17/21 22:40	BRF
1,3-Dichlorobenzene	ND	0.10	0.024		ND	0.60	0.15	2	9/17/21 22:40	BRF
1,4-Dichlorobenzene	ND	0.10	0.041		ND	0.60	0.24	2	9/17/21 22:40	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 22:40	BRF
1,1-Dichloroethane	0.36	0.10	0.034		1.5	0.40	0.14	2	9/17/21 22:40	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	9/17/21 22:40	BRF
1,1-Dichloroethylene	ND	0.10	0.039		ND	0.40	0.16	2	9/17/21 22:40	BRF
cis-1,2-Dichloroethylene	0.35	0.10	0.034		1.4	0.40	0.13	2	9/17/21 22:40	BRF
trans-1,2-Dichloroethylene	0.45	0.10	0.035		1.8	0.40	0.14	2	9/17/21 22:40	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	9/17/21 22:40	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	9/17/21 22:40	BRF
trans-1,3-Dichloropropene	ND	0.10	0.031		ND	0.45	0.14	2	9/17/21 22:40	BRF
Ethanol	6.4	4.0	1.2		12	7.5	2.3	2	9/17/21 22:40	BRF
Ethyl Acetate	ND	1.0	0.59	L-03, V-34	ND	3.6	2.1	2	9/17/21 22:40	BRF
Ethylbenzene	0.042	0.10	0.026	J	0.18	0.43	0.11	2	9/17/21 22:40	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 22:40	BRF
Heptane	ND	0.10	0.041		ND	0.41	0.17	2	9/17/21 22:40	BRF
Hexachlorobutadiene	ND	0.10	0.056	L-03, V-05	ND	1.1	0.59	2	9/17/21 22:40	BRF
Hexane	ND	4.0	0.33		ND	14	1.2	2	9/17/21 22:40	BRF
2-Hexanone (MBK)	ND	0.20	0.050		ND	0.82	0.21	2	9/17/21 22:40	BRF
Isopropanol	1.6	4.0	0.92	J	4.0	9.8	2.3	2	9/17/21 22:40	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	9/17/21 22:40	BRF
Methylene Chloride	ND	1.0	0.23		ND	3.5	0.80	2	9/17/21 22:40	BRF
Methyl methacrylate	ND	0.10	0.059		ND	0.41	0.24	2	9/17/21 22:40	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.051		ND	0.41	0.21	2	9/17/21 22:40	BRF
Propene	ND	4.0	0.33		ND	6.9	0.58	2	9/17/21 22:40	BRF
Styrene	0.050	0.10	0.032	J	0.21	0.43	0.13	2	9/17/21 22:40	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066	L-05	ND	1.2	0.45	2	9/17/21 22:40	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.031		ND	0.69	0.21	2	9/17/21 22:40	BRF
Tetrachloroethylene	16	0.10	0.030		110	0.68	0.20	2	9/17/21 22:40	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-7
Sample ID: 21I0397-11
Sample Matrix: Air
Sampled: 9/8/2021 10:23

Sample Description/Location:
Sub Description/Location:
Canister ID: 1934
Canister Size: 6 liter
Flow Controller ID: 4210
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -29
Final Vacuum(in Hg): -10
Receipt Vacuum(in Hg): -5.9
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	560	15	3.7		1700	44	11	30	9/17/21 23:04	BRF
Toluene	0.37	0.10	0.042		1.4	0.38	0.16	2	9/17/21 22:40	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.070	V-04	ND	1.5	0.52	2	9/17/21 22:40	BRF
1,1,1-Trichloroethane	2.2	0.10	0.046		12	0.55	0.25	2	9/17/21 22:40	BRF
1,1,2-Trichloroethane	ND	0.10	0.040		ND	0.55	0.22	2	9/17/21 22:40	BRF
Trichloroethylene	39	0.10	0.037		210	0.54	0.20	2	9/17/21 22:40	BRF
Trichlorofluoromethane (Freon 11)	33	0.40	0.040		180	2.2	0.22	2	9/17/21 22:40	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.035		ND	3.1	0.27	2	9/17/21 22:40	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.030		ND	0.49	0.15	2	9/17/21 22:40	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.027		ND	0.49	0.13	2	9/17/21 22:40	BRF
Vinyl Acetate	ND	2.0	0.19		ND	7.0	0.66	2	9/17/21 22:40	BRF
Vinyl Chloride	ND	0.10	0.040		ND	0.26	0.10	2	9/17/21 22:40	BRF
m&p-Xylene	0.12	0.20	0.055	J	0.52	0.87	0.24	2	9/17/21 22:40	BRF
o-Xylene	0.040	0.10	0.027	J	0.17	0.43	0.12	2	9/17/21 22:40	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.5	70-130	9/17/21 23:04
4-Bromofluorobenzene (1)	95.3	70-130	9/17/21 22:40
4-Bromofluorobenzene (2)	75.2	70-130	9/17/21 23:04
4-Bromofluorobenzene (2)	80.5	70-130	9/17/21 22:40

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-Combined
Sample ID: 21I0397-12
Sample Matrix: Air
Sampled: 9/8/2021 13:32

Sample Description/Location:
Sub Description/Location:
Canister ID: 1852
Canister Size: 6 liter
Flow Controller ID: 4304
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	ND	4.0	2.4		ND	9.5	5.7	2	9/17/21 23:30	BRF
Benzene	0.30	0.10	0.024		0.95	0.32	0.077	2	9/17/21 23:30	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	9/17/21 23:30	BRF
Bromodichloromethane	ND	0.10	0.036		ND	0.67	0.24	2	9/17/21 23:30	BRF
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	9/17/21 23:30	BRF
Bromomethane	ND	0.10	0.082		ND	0.39	0.32	2	9/17/21 23:30	BRF
1,3-Butadiene	ND	0.10	0.070		ND	0.22	0.15	2	9/17/21 23:30	BRF
2-Butanone (MEK)	0.40	4.0	0.33	J	1.2	12	0.98	2	9/17/21 23:30	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	9/17/21 23:30	BRF
Carbon Tetrachloride	0.070	0.10	0.030	J	0.44	0.63	0.19	2	9/17/21 23:30	BRF
Chlorobenzene	ND	0.10	0.030		ND	0.46	0.14	2	9/17/21 23:30	BRF
Chloroethane	ND	0.10	0.073		ND	0.26	0.19	2	9/17/21 23:30	BRF
Chloroform	1.0	0.10	0.024		5.0	0.49	0.12	2	9/17/21 23:30	BRF
Chloromethane	ND	0.20	0.041		ND	0.41	0.085	2	9/17/21 23:30	BRF
Cyclohexane	ND	0.10	0.066		ND	0.34	0.23	2	9/17/21 23:30	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	9/17/21 23:30	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77	0.22	2	9/17/21 23:30	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	9/17/21 23:30	BRF
1,3-Dichlorobenzene	ND	0.10	0.024		ND	0.60	0.15	2	9/17/21 23:30	BRF
1,4-Dichlorobenzene	ND	0.10	0.041		ND	0.60	0.24	2	9/17/21 23:30	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 23:30	BRF
1,1-Dichloroethane	8.3	0.10	0.034		34	0.40	0.14	2	9/17/21 23:30	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	9/17/21 23:30	BRF
1,1-Dichloroethylene	4.0	0.10	0.039		16	0.40	0.16	2	9/17/21 23:30	BRF
cis-1,2-Dichloroethylene	5.7	0.10	0.034		22	0.40	0.13	2	9/17/21 23:30	BRF
trans-1,2-Dichloroethylene	0.15	0.10	0.035		0.58	0.40	0.14	2	9/17/21 23:30	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	9/17/21 23:30	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	9/17/21 23:30	BRF
trans-1,3-Dichloropropene	ND	0.10	0.031		ND	0.45	0.14	2	9/17/21 23:30	BRF
Ethanol	28	4.0	1.2		53	7.5	2.3	2	9/17/21 23:30	BRF
Ethyl Acetate	ND	1.0	0.59	L-03, V-34	ND	3.6	2.1	2	9/17/21 23:30	BRF
Ethylbenzene	ND	0.10	0.026		ND	0.43	0.11	2	9/17/21 23:30	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	9/17/21 23:30	BRF
Heptane	ND	0.10	0.041		ND	0.41	0.17	2	9/17/21 23:30	BRF
Hexachlorobutadiene	ND	0.10	0.056	L-03, V-05	ND	1.1	0.59	2	9/17/21 23:30	BRF
Hexane	ND	4.0	0.33		ND	14	1.2	2	9/17/21 23:30	BRF
2-Hexanone (MBK)	ND	0.20	0.050		ND	0.82	0.21	2	9/17/21 23:30	BRF
Isopropanol	ND	4.0	0.92		ND	9.8	2.3	2	9/17/21 23:30	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	9/17/21 23:30	BRF
Methylene Chloride	ND	1.0	0.23		ND	3.5	0.80	2	9/17/21 23:30	BRF
Methyl methacrylate	ND	0.10	0.059		ND	0.41	0.24	2	9/17/21 23:30	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.051		ND	0.41	0.21	2	9/17/21 23:30	BRF
Propene	ND	4.0	0.33		ND	6.9	0.58	2	9/17/21 23:30	BRF
Styrene	0.090	0.10	0.032	J	0.38	0.43	0.13	2	9/17/21 23:30	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066	L-05	ND	1.2	0.45	2	9/17/21 23:30	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.031		ND	0.69	0.21	2	9/17/21 23:30	BRF
Tetrachloroethylene	22	0.10	0.030		150	0.68	0.20	2	9/17/21 23:30	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: EW-Combined
Sample ID: 21I0397-12
Sample Matrix: Air
Sampled: 9/8/2021 13:32

Sample Description/Location:
Sub Description/Location:
Canister ID: 1852
Canister Size: 6 liter
Flow Controller ID: 4304
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	0.32	1.0	0.25	J	0.94	2.9	0.73	2	9/17/21 23:30	BRF
Toluene	0.28	0.10	0.042		1.1	0.38	0.16	2	9/17/21 23:30	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.070	V-04	ND	1.5	0.52	2	9/17/21 23:30	BRF
1,1,1-Trichloroethane	56	0.10	0.046		300	0.55	0.25	2	9/17/21 23:30	BRF
1,1,2-Trichloroethane	ND	0.10	0.040		ND	0.55	0.22	2	9/17/21 23:30	BRF
Trichloroethylene	82	0.10	0.037		440	0.54	0.20	2	9/17/21 23:30	BRF
Trichlorofluoromethane (Freon 11)	34	0.40	0.040		190	2.2	0.22	2	9/17/21 23:30	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.035		ND	3.1	0.27	2	9/17/21 23:30	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.030		ND	0.49	0.15	2	9/17/21 23:30	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.027		ND	0.49	0.13	2	9/17/21 23:30	BRF
Vinyl Acetate	ND	2.0	0.19		ND	7.0	0.66	2	9/17/21 23:30	BRF
Vinyl Chloride	ND	0.10	0.040		ND	0.26	0.10	2	9/17/21 23:30	BRF
m&p-Xylene	0.058	0.20	0.055	J	0.25	0.87	0.24	2	9/17/21 23:30	BRF
o-Xylene	ND	0.10	0.027		ND	0.43	0.12	2	9/17/21 23:30	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.5	70-130	9/17/21 23:30
4-Bromofluorobenzene (2)	78.3	70-130	9/17/21 23:30

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: Post Carbon
Sample ID: 21I0397-13
Sample Matrix: Air
Sampled: 9/8/2021 13:19

Sample Description/Location:
Sub Description/Location:
Canister ID: 1849
Canister Size: 6 liter
Flow Controller ID: 4090
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	Results	RL	MDL	Flag/Qual	Results	RL	MDL	Dilution	Analyzed	Analyst
Acetone	ND	4.0	2.4		ND	9.5	5.7	2	9/18/21 0:21	BRF
Benzene	ND	0.10	0.024		ND	0.32	0.077	2	9/18/21 0:21	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	9/18/21 0:21	BRF
Bromodichloromethane	ND	0.10	0.036		ND	0.67	0.24	2	9/18/21 0:21	BRF
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	9/18/21 0:21	BRF
Bromomethane	ND	0.10	0.082		ND	0.39	0.32	2	9/18/21 0:21	BRF
1,3-Butadiene	ND	0.10	0.070		ND	0.22	0.15	2	9/18/21 0:21	BRF
2-Butanone (MEK)	ND	4.0	0.33		ND	12	0.98	2	9/18/21 0:21	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	9/18/21 0:21	BRF
Carbon Tetrachloride	ND	0.10	0.030		ND	0.63	0.19	2	9/18/21 0:21	BRF
Chlorobenzene	ND	0.10	0.030		ND	0.46	0.14	2	9/18/21 0:21	BRF
Chloroethane	ND	0.10	0.073		ND	0.26	0.19	2	9/18/21 0:21	BRF
Chloroform	0.12	0.10	0.024		0.58	0.49	0.12	2	9/18/21 0:21	BRF
Chloromethane	ND	0.20	0.041		ND	0.41	0.085	2	9/18/21 0:21	BRF
Cyclohexane	ND	0.10	0.066		ND	0.34	0.23	2	9/18/21 0:21	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	9/18/21 0:21	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.028		ND	0.77	0.22	2	9/18/21 0:21	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	9/18/21 0:21	BRF
1,3-Dichlorobenzene	ND	0.10	0.024		ND	0.60	0.15	2	9/18/21 0:21	BRF
1,4-Dichlorobenzene	ND	0.10	0.041		ND	0.60	0.24	2	9/18/21 0:21	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031		ND	0.49	0.15	2	9/18/21 0:21	BRF
1,1-Dichloroethane	13	0.10	0.034		52	0.40	0.14	2	9/18/21 0:21	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	9/18/21 0:21	BRF
1,1-Dichloroethylene	9.3	0.10	0.039		37	0.40	0.16	2	9/18/21 0:21	BRF
cis-1,2-Dichloroethylene	10	0.10	0.034		40	0.40	0.13	2	9/18/21 0:21	BRF
trans-1,2-Dichloroethylene	0.22	0.10	0.035		0.86	0.40	0.14	2	9/18/21 0:21	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	9/18/21 0:21	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	9/18/21 0:21	BRF
trans-1,3-Dichloropropene	ND	0.10	0.031		ND	0.45	0.14	2	9/18/21 0:21	BRF
Ethanol	1.2	4.0	1.2	J	2.3	7.5	2.3	2	9/18/21 0:21	BRF
Ethyl Acetate	ND	1.0	0.59	L-03, V-34	ND	3.6	2.1	2	9/18/21 0:21	BRF
Ethylbenzene	ND	0.10	0.026		ND	0.43	0.11	2	9/18/21 0:21	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	9/18/21 0:21	BRF
Heptane	ND	0.10	0.041		ND	0.41	0.17	2	9/18/21 0:21	BRF
Hexachlorobutadiene	ND	0.10	0.056	L-03, V-05	ND	1.1	0.59	2	9/18/21 0:21	BRF
Hexane	ND	4.0	0.33		ND	14	1.2	2	9/18/21 0:21	BRF
2-Hexanone (MBK)	ND	0.20	0.050		ND	0.82	0.21	2	9/18/21 0:21	BRF
Isopropanol	2.3	4.0	0.92	J	5.7	9.8	2.3	2	9/18/21 0:21	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	9/18/21 0:21	BRF
Methylene Chloride	ND	1.0	0.23		ND	3.5	0.80	2	9/18/21 0:21	BRF
Methyl methacrylate	ND	0.10	0.059		ND	0.41	0.24	2	9/18/21 0:21	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.051		ND	0.41	0.21	2	9/18/21 0:21	BRF
Propene	ND	4.0	0.33		ND	6.9	0.58	2	9/18/21 0:21	BRF
Styrene	ND	0.10	0.032		ND	0.43	0.13	2	9/18/21 0:21	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066	L-05	ND	1.2	0.45	2	9/18/21 0:21	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.031		ND	0.69	0.21	2	9/18/21 0:21	BRF
Tetrachloroethylene	0.17	0.10	0.030		1.2	0.68	0.20	2	9/18/21 0:21	BRF

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 9/9/2021
Field Sample #: Post Carbon
Sample ID: 21I0397-13
Sample Matrix: Air
Sampled: 9/8/2021 13:19

Sample Description/Location:
Sub Description/Location:
Canister ID: 1849
Canister Size: 6 liter
Flow Controller ID: 4090
Sample Type: 30 min

Work Order: 21I0397
Initial Vacuum(in Hg): -30
Final Vacuum(in Hg): -4
Receipt Vacuum(in Hg): -5.5
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	1.0	0.25		ND	2.9	0.73	2	9/18/21 0:21	BRF
Toluene	0.12	0.10	0.042		0.45	0.38	0.16	2	9/18/21 0:21	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.070	V-04	ND	1.5	0.52	2	9/18/21 0:21	BRF
1,1,1-Trichloroethane	ND	0.10	0.046		ND	0.55	0.25	2	9/18/21 0:21	BRF
1,1,2-Trichloroethane	ND	0.10	0.040		ND	0.55	0.22	2	9/18/21 0:21	BRF
Trichloroethylene	0.12	0.10	0.037		0.63	0.54	0.20	2	9/18/21 0:21	BRF
Trichlorofluoromethane (Freon 11)	50	0.40	0.040		280	2.2	0.22	2	9/18/21 0:21	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.035		ND	3.1	0.27	2	9/18/21 0:21	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.030		ND	0.49	0.15	2	9/18/21 0:21	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.027		ND	0.49	0.13	2	9/18/21 0:21	BRF
Vinyl Acetate	ND	2.0	0.19		ND	7.0	0.66	2	9/18/21 0:21	BRF
Vinyl Chloride	ND	0.10	0.040		ND	0.26	0.10	2	9/18/21 0:21	BRF
m&p-Xylene	ND	0.20	0.055		ND	0.87	0.24	2	9/18/21 0:21	BRF
o-Xylene	ND	0.10	0.027		ND	0.43	0.12	2	9/18/21 0:21	BRF

Surrogates	% Recovery	% REC Limits		
4-Bromofluorobenzene (1)	92.7	70-130	9/18/21 0:21	
4-Bromofluorobenzene (2)	80.1	70-130	9/18/21 0:21	

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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
21I0397-01 [IA-1]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-01RE1 [IA-1]	B290526	1.5	1	N/A	1000	200	30	09/17/21
21I0397-02 [IA-2]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-03 [IA-3]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-03RE1 [IA-3]	B290526	1.5	1	N/A	1000	200	30	09/17/21
21I0397-04 [IA-4]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-05 [IA-5]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-06 [IA-6]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-06RE1 [IA-6]	B290526	1.5	1	N/A	1000	200	30	09/17/21
21I0397-07 [IA-7]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-07RE1 [IA-7]	B290526	1.5	1	N/A	1000	200	30	09/17/21
21I0397-08 [AA-1]	B290526	1.5	1	N/A	1000	200	430	09/17/21
21I0397-09 [EW-5]	B290526	1.5	1	N/A	1000	200	150	09/17/21
21I0397-10 [EW-6]	B290526	1.5	1	N/A	1000	200	150	09/17/21
21I0397-11 [EW-7]	B290526	1.5	1	N/A	1000	200	150	09/17/21
21I0397-11RE1 [EW-7]	B290526	1.5	1	N/A	1000	200	10	09/17/21
21I0397-12 [EW-Combined]	B290526	1.5	1	N/A	1000	200	150	09/17/21
21I0397-13 [Post Carbon]	B290526	1.5	1	N/A	1000	200	150	09/17/21

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B290526 - TO-15 Prep											
Blank (B290526-BLK1)					Prepared & Analyzed: 09/17/21						
Acetone	ND	0.80									
Benzene	ND	0.020									
Benzyl chloride	ND	0.020									
Bromodichloromethane	ND	0.020									
Bromoform	ND	0.020									
Bromomethane	ND	0.020									
1,3-Butadiene	ND	0.020									
2-Butanone (MEK)	ND	0.80									
Carbon Disulfide	ND	0.20									
Carbon Tetrachloride	ND	0.020									
Chlorobenzene	ND	0.020									
Chloroethane	ND	0.020									
Chloroform	ND	0.020									
Chloromethane	ND	0.040									
Cyclohexane	ND	0.020									
Dibromochloromethane	ND	0.020									
1,2-Dibromoethane (EDB)	ND	0.020									
1,2-Dichlorobenzene	ND	0.020									
1,3-Dichlorobenzene	ND	0.020									
1,4-Dichlorobenzene	ND	0.020									
Dichlorodifluoromethane (Freon 12)	ND	0.020									
1,1-Dichloroethane	ND	0.020									
1,2-Dichloroethane	ND	0.020									
1,1-Dichloroethylene	ND	0.020									
cis-1,2-Dichloroethylene	ND	0.020									
trans-1,2-Dichloroethylene	ND	0.020									
1,2-Dichloropropane	ND	0.020									
cis-1,3-Dichloropropene	ND	0.020									
trans-1,3-Dichloropropene	ND	0.020									
Ethanol	ND	0.80									
Ethyl Acetate	ND	0.20									L-03, V-34
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									L-03, V-05
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.020									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	ND	0.20									
Methyl methacrylate	ND	0.020									
4-Methyl-2-pentanone (MIBK)	ND	0.020									
Propene	ND	0.80									
Styrene	ND	0.020									
1,1,1,2-Tetrachloroethane	ND	0.036									L-05
1,1,2,2-Tetrachloroethane	ND	0.020									

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B290526 - TO-15 Prep											
Blank (B290526-BLK1)					Prepared & Analyzed: 09/17/21						
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									V-04
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080									
1,2,4-Trimethylbenzene	ND	0.020									
1,3,5-Trimethylbenzene	ND	0.020									
Vinyl Acetate	ND	0.40									
Vinyl Chloride	ND	0.020									
m&p-Xylene	ND	0.040									
o-Xylene	ND	0.020									
Surrogate: 4-Bromofluorobenzene (1)	*7.59*				*8.00*		*94.9*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*6.51*				*8.00*		*81.4*	*70-130*			
LCS (B290526-BS1)					Prepared & Analyzed: 09/17/21						
Acetone	3.89				5.00		77.8	70-130			
Benzene	4.81				5.00		96.2	70-130			
Benzyl chloride	6.04				5.00		121	70-130			
Bromodichloromethane	4.34				5.00		86.8	70-130			
Bromoform	4.36				5.00		87.1	70-130			
Bromomethane	5.63				5.00		113	70-130			
1,3-Butadiene	5.28				5.00		106	70-130			
2-Butanone (MEK)	3.91				5.00		78.3	70-130			
Carbon Disulfide	5.57				5.00		111	70-130			
Carbon Tetrachloride	3.99				5.00		79.8	70-130			
Chlorobenzene	4.29				5.00		85.8	70-130			
Chloroethane	5.69				5.00		114	70-130			
Chloroform	4.31				5.00		86.3	70-130			
Chloromethane	5.14				5.00		103	70-130			
Cyclohexane	4.62				5.00		92.4	70-130			
Dibromochloromethane	4.38				5.00		87.6	70-130			
1,2-Dibromoethane (EDB)	4.56				5.00		91.1	70-130			
1,2-Dichlorobenzene	4.54				5.00		90.8	70-130			
1,3-Dichlorobenzene	4.80				5.00		96.0	70-130			
1,4-Dichlorobenzene	4.54				5.00		90.9	70-130			
Dichlorodifluoromethane (Freon 12)	4.77				5.00		95.4	70-130			
1,1-Dichloroethane	4.39				5.00		87.9	70-130			
1,2-Dichloroethane	3.62				5.00		72.5	70-130			
1,1-Dichloroethylene	4.82				5.00		96.5	70-130			
cis-1,2-Dichloroethylene	4.31				5.00		86.1	70-130			
trans-1,2-Dichloroethylene	4.34				5.00		86.8	70-130			
1,2-Dichloropropane	4.66				5.00		93.2	70-130			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B290526 - TO-15 Prep												
LCS (B290526-BS1)					Prepared & Analyzed: 09/17/21							
cis-1,3-Dichloropropene	4.83				5.00		96.6		70-130			
trans-1,3-Dichloropropene	4.92				5.00		98.4		70-130			
Ethanol	5.81				5.00		116		70-130			
Ethyl Acetate	3.02				5.00		**60.3**	*	70-130			L-03, V-34
Ethylbenzene	4.54				5.00		90.9		70-130			
4-Ethyltoluene	4.81				5.00		96.3		70-130			
Heptane	4.59				5.00		91.9		70-130			
Hexachlorobutadiene	3.26				5.00		**65.2**	*	70-130			L-03, V-05
Hexane	3.90				5.00		78.0		70-130			
2-Hexanone (MBK)	4.26				5.00		85.2		70-130			
Isopropanol	3.57				5.00		71.3		70-130			
Methyl tert-Butyl Ether (MTBE)	4.19				5.00		83.8		70-130			
Methylene Chloride	4.32				5.00		86.3		70-130			
Methyl methacrylate	5.00				5.00		100		70-130			
4-Methyl-2-pentanone (MIBK)	5.03				5.00		101		70-130			
Propene	4.87				5.00		97.3		70-130			
Styrene	4.89				5.00		97.8		70-130			
1,1,1,2-Tetrachloroethane	0.628				0.910		**69.0**	*	70-130			L-05
1,1,2,2-Tetrachloroethane	4.80				5.00		96.0		70-130			
Tetrachloroethylene	4.01				5.00		80.2		70-130			
Tetrahydrofuran	3.99				5.00		79.7		70-130			
Toluene	4.53				5.00		90.7		70-130			
1,2,4-Trichlorobenzene	4.28				5.00		85.6		70-130			V-04
1,1,1-Trichloroethane	3.93				5.00		78.5		70-130			
1,1,2-Trichloroethane	4.49				5.00		89.8		70-130			
Trichloroethylene	4.42				5.00		88.3		70-130			
Trichlorofluoromethane (Freon 11)	4.70				5.00		94.1		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.54				5.00		111		70-130			
1,2,4-Trimethylbenzene	4.36				5.00		87.1		70-130			
1,3,5-Trimethylbenzene	4.43				5.00		88.6		70-130			
Vinyl Acetate	5.70				5.00		114		70-130			V-36
Vinyl Chloride	5.90				5.00		118		70-130			
m&p-Xylene	9.05				10.0		90.5		70-130			
o-Xylene	4.37				5.00		87.4		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*7.56*				*8.00*		*94.5*		*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*6.53*				*8.00*		*81.6*		*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B290526 - TO-15 Prep											
Duplicate (B290526-DUP1)			**Source: 21I0397-10**		Prepared & Analyzed: 09/17/21						
Acetone	15	4.0	35	9.5		15			0.513	25	
Benzene	0.42	0.10	1.3	0.32		0.45			6.86	25	
Benzyl chloride	ND	0.10	ND	0.52		ND				25	
Bromodichloromethane	ND	0.10	ND	0.67		ND				25	
Bromoform	ND	0.10	ND	1.0		ND				25	
Bromomethane	ND	0.10	ND	0.39		ND				25	
1,3-Butadiene	ND	0.10	ND	0.22		ND				25	
2-Butanone (MEK)	1.5	4.0	4.3	12		1.4			2.20	25	J
Carbon Disulfide	ND	1.0	ND	3.1		ND				25	
Carbon Tetrachloride	0.068	0.10	0.43	0.63		0.068			0.00	25	J
Chlorobenzene	ND	0.10	ND	0.46		ND				25	
Chloroethane	ND	0.10	ND	0.26		ND				25	
Chloroform	ND	0.10	ND	0.49		ND				25	
Chloromethane	0.66	0.20	1.4	0.41		0.70			4.99	25	
Cyclohexane	ND	0.10	ND	0.34		ND				25	
Dibromochloromethane	ND	0.10	ND	0.85		ND				25	
1,2-Dibromoethane (EDB)	ND	0.10	ND	0.77		ND				25	
1,2-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,3-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
1,4-Dichlorobenzene	ND	0.10	ND	0.60		ND				25	
Dichlorodifluoromethane (Freon 12)	0.48	0.10	2.4	0.49		0.48			0.00	25	
1,1-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,2-Dichloroethane	ND	0.10	ND	0.40		ND				25	
1,1-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
cis-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
trans-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND				25	
1,2-Dichloropropane	ND	0.10	ND	0.46		ND				25	
cis-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
trans-1,3-Dichloropropene	ND	0.10	ND	0.45		ND				25	
Ethanol	88	4.0	170	7.5		88			0.338	25	
Ethyl Acetate	ND	1.0	ND	3.6		ND				25	L-03, V-34
Ethylbenzene	0.046	0.10	0.20	0.43		0.050			8.33	25	J
4-Ethyltoluene	ND	0.10	ND	0.49		ND				25	
Heptane	ND	0.10	ND	0.41		ND				25	
Hexachlorobutadiene	ND	0.10	ND	1.1		ND				25	L-03, V-05
Hexane	ND	4.0	ND	14		ND				25	
2-Hexanone (MBK)	ND	0.10	ND	0.41		ND				25	
Isopropanol	1.2	4.0	2.9	9.8		1.2			2.35	25	J
Methyl tert-Butyl Ether (MTBE)	ND	0.10	ND	0.36		ND				25	
Methylene Chloride	0.27	1.0	0.94	3.5		0.29			6.45	25	J
Methyl methacrylate	ND	0.10	ND	0.41		ND				25	
4-Methyl-2-pentanone (MIBK)	ND	0.10	ND	0.41		ND				25	
Propene	ND	4.0	ND	6.9		ND				25	
Styrene	0.046	0.10	0.20	0.43		0.036			24.4	25	J
1,1,1,2-Tetrachloroethane	ND	0.18	ND	1.2		ND				25	L-05
1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.69		ND				25	

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B290526 - TO-15 Prep											
Duplicate (B290526-DUP1)			**Source: 21I0397-10**		Prepared & Analyzed: 09/17/21						
Tetrachloroethylene	0.042	0.10	0.28	0.68		0.040			4.88	25	J
Tetrahydrofuran	0.46	1.0	1.3	2.9		0.50			8.81	25	J
Toluene	0.48	0.10	1.8	0.38		0.50			5.30	25	
1,2,4-Trichlorobenzene	ND	0.10	ND	0.74		ND				25	V-04
1,1,1-Trichloroethane	ND	0.10	ND	0.55		ND				25	
1,1,2-Trichloroethane	ND	0.10	ND	0.55		ND				25	
Trichloroethylene	ND	0.10	ND	0.54		ND				25	
Trichlorofluoromethane (Freon 11)	0.23	0.40	1.3	2.2		0.24			2.55	25	J
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.088	0.40	0.67	3.1		0.084			4.65	25	J
1,2,4-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
1,3,5-Trimethylbenzene	ND	0.10	ND	0.49		ND				25	
Vinyl Acetate	ND	2.0	ND	7.0		ND				25	
Vinyl Chloride	ND	0.10	ND	0.26		ND				25	
m&p-Xylene	0.13	0.20	0.57	0.87		0.13			1.53	25	J
o-Xylene	0.054	0.10	0.23	0.43		0.056			3.64	25	J
Surrogate: 4-Bromofluorobenzene (1)	*7.39*				*8.00*		*92.4*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*6.44*				*8.00*		*80.4*	*70-130*			

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Note: Blank Subtraction is not performed unless otherwise noted

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
RL	Reporting Limit
MDL	Method Detection Limit
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
LCS Dup	Duplicate Laboratory Control Sample
MS	Matrix Spike Sample
MS Dup	Duplicate Matrix Spike Sample
REC	Recovery
QC	Quality Control
ppbv	Parts per billion volume
EPA	United States Environmental Protection Agency
% REC	Percent Recovery
ND	Not Detected
N/A	Not Applicable
DL	Detection Limit
NC	Not Calculated
LFB/LCS	Lab Fortified Blank/Lab Control Sample
ORP	Oxidation-Reduction Potential
wet	Not dry weight corrected
% wt	Percent weight
Kg	Kilogram
g	Gram
mg	Milligram
µg	Microgram
ng	Nanogram
L	Liter
mL	Milliliter
µL	Microliter
m3	Cubic Meter
EPH	Extractable Petroleum Hydrocarbons
VPH	Volatile Petroleum Hydrocarbons
APH	Air Petroleum Hydrocarbons
FID	Flame Ionization Detector
PID	Photo Ionization Detector
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.
V-36	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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

ANALYST

RLF	Rebecca Faust
RAP	Raisa A. Petraitis
STATION	PDF Management Station
KKM	Kerry K. McGee
BRF	Brittany R. Fisk

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CERTIFICATIONS

Certified Analyses included in this Report

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

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CERTIFICATIONS

Certified Analyses included in this Report

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

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publilc Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2022
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2022
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

con-test ANALYTICAL LABORATORY

2110397

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http://www.contestlabs.com

Doc #378 Rev 1_03242017

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 2

Company Name: Wood PLC
Address: 271 Mill Road Chelmsford MA
Phone: 508-314-3058
Project Name: Textron Gorham
Project Location: Providence, RI
Project Number: 36521036
Project Manager: Greg Arena
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Brian Thornton

Requested Turnaround Time
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To: brian.thornton@wood
Fax To #: plc.com

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	TO-15				" Hg			Please fill out completely, sign, date and retain the yellow copy for your records		
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	m³/min L/min	Code	Liters m³					Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply		
															For summa canister and flow controller information please refer to Con-Test's Air Media Agreement		
															Summa Can ID	Flow Controller ID	
01	IA-1	11:00	11:24	24				X				-28	-4	5.1	2208	4206	
02	IA-2	11:57	12:26	29				X				-30	-5	10.7	1730	4177	
03	IA-3	10:56	11:25	29				X				-28	-5	10.3	1923	4315	
04	IA-4	11:59	12:29	30				X				-30	-5	5	1831	4179	
05	IA-5	8:52	9:22	30				X				-30	-8	7.3	1951	4042	
06	IA-6	8:54	9:24	30				X				-27	-4	3.0	1954	4280	
07	IA-7	9:50	10:19	29				X				-28	-1	1	1931	4205	
08	AA-1	12:23	12:52	29				X				-30	-4	5.1	1943	4194	
09	EW-5	11:06	11:36	30				X				-29	-4	4.9	1115	428	

Comments: Initial pressures; IA-1 = -28
IA-2 = -30
IA-3 = -28

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Date/Time:
	9/9/21 11:13
Received by: (signature) A Fraser 9/9/21	Date/Time: 11:14 AM
Relinquished by: (signature) A Fraser 9/9/21	Date/Time: 14:40
Received by: (signature)	Date/Time: 9/9/21 1440
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
RI
Other: RI

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] Other

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] *AIHA-LAP,LLC*

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

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21E0397

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Doc #378 Rev 1_03242017

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name:
Address:
Phone:
Project Name:
Project Location:
Project Number:
Project Manager:
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By:

Requested Turnaround Time:
7-Day [X] 10-Day [ ]
Due Date:

Rush Approval Required
1-Day [ ] 3-Day [ ]
2-Day [ ] 4-Day [ ]

Data Delivery
Format: PDF [X] EXCEL [X]
Other:
CLP Like Data Pkg Required: [ ]
Email To:
Fax To #:

ANALYSIS REQUESTED

Please fill out completely, sign, date and retain the yellow copy for your records

Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply

For summa canister and flow controller information please refer to Con-Test's Air Media Agreement

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	TO-15				" Hg				
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	m³/min L/min	Code	Liters m³					Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
10	EW-6	9:41	10:08	27				X				-30	-2	1.8	1457	4303
11	EW-7	9:56	10:23	27				X				-29	-10	5.9	1934	4210
12	EW-Combined	13:03	13:32	29				X				-30	-4	5.4	1852	4304
13	PostCarbon	12:10	13:14	24				X				-30	-4	5.5	1844	4090

Comments:

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Date/Time:
	09/09/21 11:14
Received by: (signature) A Fraser 9/9/21	Date/Time: 11:14 AM
Relinquished by: (signature) A. Fraser 9/9/21	Date/Time: 14:40
Received by: (signature)	Date/Time: 9/9/21 1440
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other: RI

Special Requirements
[ ] MA MCP Required
MCP Certification Form Required
[ ] CT RCP Required
RCP Certification Form Required
[ ] Other

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NELAC and AIHA-LAP, LLC Accredited

Project Entity
[ ] Government [ ] Municipality [ ] MWRA [ ] WRTA
[ ] Federal [ ] 21 J [ ] School
[ ] City [ ] Brownfield [ ] MBTA

Other
[ ] Chromatogram
[ ] *AIHA-LAP,LLC*

PCB ONLY
[ ] Soxhlet
[ ] Non Soxhlet

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Wood PLC

Received By RLF Date 9/9/21 Time 1440

How were the samples received? In Cooler ____ On Ice ____ No Ice ____ In Box T Ambient ____ Melted Ice ____

Were samples within Temperature Compliance? 2-6°C LA By Gun # ____ Actual Temp - ____ By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? LA Were Samples Tampered with? LA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there any loose caps/valves on any samples? F

Is COC in ink/ Legible? T

Did COC Include all Pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample Labels filled out and legible? T

Are there Rushes? F Who was notified? ____

Samples are received within holding time? T

Proper Media Used? T Individually Certified Cans? F

Are there Trip Blanks? F Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:			
Summa Cans	13	6L	13	30min	Nut/Ferrule	5	IC Train	
Tedlar Bags					Tubing	15ft		
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/TO-11s					Tedlar			

Can #'s					Reg #'s				
2208	1931	1849			4206	4205	4090		
1730	1943				4177	4194			
1923	1115				4315	4285			
1831	1457				4179	4303			
1951	1934				4042	4210			
1959	1952				4280	4304			
Unused Media					**Pufs/TO-17's**				

Comments:

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	Matrix Spike RPD	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 (Fre	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	

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS 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)								

Appendix C

Outdoor Reference Sample Results

Appendix C.
Summary of Analytical Results - Outdoor Air Reference Sampling
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Outdoor Air Reference Location																								
Location:		AA-1																								
Sample ID:		AA-1	AA-1-020309	AA-1-021109	AA-1-021809	AA-1-022609	AA-1-030609	AA-1-033109	AA-1-041409	AA-1-042409	AA-1-051509	AA-1-061109	AA-1-091709	AA-1-092409	AA-1-100109	AA-1-100809	AA-1-122909	AA-1-012810	AA-1-020510	AA-1-021210	AA-1-021910	AA-1-032610	AA-1-043010	AA-1-052810	AA-1-070110
Sample Date:		1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	5/15/2009	6/11/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/29/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010
Analyte	**Units**																									
1,1,1,2-Tetrachloroethane	ug/m3																									
1,1,1-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	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	0.23 U	0.23 U	0.23 U	0.23 U	0.11 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
1,3-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.53	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3																									
2-Butanone	ug/m3	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	0.81	1.6	1.6	0.88	1.5	1.4	2.4	2.3
2-Hexanone	ug/m3	0.2 U	0.22	0.57	0.35	0.2 U	0.2 U	0.2 U	0.14 U	0.26	0.39	0.2 U	0.34	0.2 U	0.33	0.23	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49	0.49
4-Ethyltoluene	ug/m3	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	ug/m3	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5	3.7	9.5	12	20	13
Benzene	ug/m3	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.3	0.4	0.49	0.38	0.35	0.25	0.2	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19	0.16 U
Benzyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.28	0.16 U	0.16 U	0.44	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.4	0.4	0.43	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51
Chlorobenzene	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	1.1	0.9	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	1.2	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96
cis-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	2	2.2	2.6	2.7	2.6	2.6	2.8	2	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4
Ethanol	ug/m3	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4
Ethyl acetate	ug/m3	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	1.1	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.82
Hexachlorobutadiene	ug/m3	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	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
Hexane	ug/m3	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	ug/m3	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	2.7	1.5	0.8	0.73	0.69	1.6	0.79
m,p-Xylene	ug/m3	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	0.5	0.47	0.43 U	0.49	0.43 U	0.43 U	2.2
Methyl methacrylate	ug/m3																									
Methylene chloride	ug/m3	5.5	3.1	0.65	1.5	0.78	7.4	15	2.1	2.8	1.7	1.9	0.7 U	4.2	0.7 U	23	4.6	1.3	1.9	1.7	0.7 U	0.7 U	0.7 U	0.35 U	1.1
Methyl-t-butyl ether	ug/m3	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3																									
n-Heptane	ug/m3	0.2 U	0.27	0.92	1.6	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.4	0.23	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/m3	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	0.22 U	0.46
Propylene (Propene)	ug/m3	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.09 U	0.09 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U
Styrene	ug/m3	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	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	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	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	0.63	0.57
trans-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1	1.4	1.2	1.5	2.2	1.2	1.2	1.6	1.5	1.5	1.2	1.4	1.3
Trichlorotrifluoroethane	ug/m3	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	ug/m3	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U
Vinyl chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix C.
Summary of Analytical Results - Outdoor Air Reference Sampling
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Outdoor Air Reference Location																							
Location:		AA-1																							
Sample ID:		AA-1-091610	AA-1-120710	AA-1-021711	AA-1-060211	AA-1-091511	AA-1-120811	AA-1-030812	AA-1-061412	AA-1-091312	AA-1-010313	AA-1-031513	AA-1-060713	AA-1-090613	AA-1-100313	AA-1-121313	AA-1-030714	AA-1-061314	AA-1-091214	AA-1-121914	AA-01-032715	AA-1-061115	AA-1-091615	AA-1-121815	AA-1-021816
Sample Date:		9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	10/3/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3					0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U		0.44 U
1,1,1-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.1 J	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	0.073 J	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.069 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.16	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12 J	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	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	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 J	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	0.31	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.27 U	0.077 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.066 J	0.061 U	0.046 J	0.14 U	0.14 U	0.057 J	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	0.14 U
1,2-Dichloropropane	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.35 U																						0.25 U	
1,3,5-Trimethylbenzene	ug/m3	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068 J	0.15 U	0.15 U	0.16 J	0.17 U	0.17 U	0.17 U	0.17 U	0.047 J	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.062 J	0.17 U	0.076 J	0.17 U	0.17 U
1,3-Butadiene	ug/m3	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.078 U	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.18	0.23	0.078 U
1,3-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3					0.18 U																		1.3 U	
2-Butanone	ug/m3	2.7	0.37	1.8 B	2.9 U	5.9 J	0.35 J	1.4 J	1.1 J	2 J	4.1 J	1.9 J	3.9 J	3.7 J	0.94 J	0.82 J	1.4 J	2.2 J	1.1 J	1.2 J	0.96 J	2.1 J	1 J	2 J	0.69 J
2-Hexanone	ug/m3	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13 J	0.49	0.32	0.14 U	0.14 U	0.26	0.34	0.16	0.14 U	0.17	0.17	0.14 U	0.14 U	0.14 U
4-Ethyltoluene	ug/m3	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053 J	0.15 U	0.15 U	0.093 J	0.17 U	0.17 U	0.17 U	0.17 U	0.063 J	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.079 J	0.17 U	0.093 J	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	2.8	0.2 U	0.2 U	0.2 U	0.2 J	0.12 U	0.12 U	0.23	0.1 J	0.14 U	0.083 J	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	0.14 U
Acetone	ug/m3	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12 B	3.3	18	28	16	12	26	9.3	22	25	10	8.7	10	13	18	6.3
Benzene	ug/m3	1.2	0.28	2.3	0.16 U	0.19	0.4	0.29	0.2	0.68	0.11	1	0.31	0.7	0.95	0.43	1	0.94	0.2	0.58	0.67	0.41	0.82	1.4	0.45
Benzyl chloride	ug/m3	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	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	0.24 U
Bromoform	ug/m3	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	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	0.14 U
Carbon disulfide	ug/m3	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058 J	0.93 U	0.11 J	1.1 U	1.1 U	0.052 J	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	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.22	0.41	0.55	0.47	0.43	0.45	0.22	0.42	0.45	0.36	0.34	0.36	0.43	0.55	0.38
Chlorobenzene	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	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	0.093 U
Chloroform	ug/m3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.094 J	0.073 U	0.067 J	0.096 J	0.17 U	0.21	0.17 U	0.17 U	0.1 J	0.17 U	0.17 U	0.17 U	0.082	0.082 J	0.065 J	0.11 J	0.18	0.31	0.17 U
Chloromethane	ug/m3	0.99	0.94	1	0.96	1.4	0.062 U	1.1	1.5	1.1	0.072	1.6	1.4	1.1	0.96	1.1	1.3	1.4	0.64	0.96	1.1	1.2	1.1	1.2	1
cis-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092 J	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	0.14 U
cis-1,3-Dichloropropene	ug/m3	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	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.31	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.59	0.12 U
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	2.9	1.9	3.1	1.9	1.7	2.5	2	2.4	2.8	0.17	1.7	3	2	1.7	2.7	1.4	2	2.2	2.1	1.4	2.3	1.7	2.7	1.6
Ethanol	ug/m3	14	2.3	12	2.7	5.8	1.5 J	4.1	7.4	5.2	2.6	1.2 J	6.1	6.7	6.7	5.4	9	17	2.9	2.7	2 J	4.8	12	7.3	2.5 J
Ethyl acetate	ug/m3	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.13	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	0.14	0.42
Ethylbenzene	ug/m3	1.4	0.22 U	1.1	0.22 U	0.22 J	0.31	0.13 U	0.065 J	0.19	0.15 U	0.12 J	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	0.46	0.15 U
Hexachlorobutadiene	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 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	0.37 U
Hexane	ug/m3	1.2	0.35 U	3.3	0.88	7 J	0.47 J	0.54 J	1.3 J	0.67 J	4.9 J	1.3 J	1.8 J	2.3 J	0.81 J	0.32 J	0.44 J	1.2 J	0.19 J	0.39 J	5.1	0.29 J	1 J	0.64 J	0.28 J
Isopropyl alcohol	ug/m3	0.25 U	0.29	2.4	1.2 U	4.9 J	0.6 J	0.88 J	2.9 U	0.58 J	3.4 J	0.52 J	1.3 J	6.2	3.3 U	0.77 J	0.92 J	3.1 J	0.61 J	3.4 U	0.65 J	0.44 J	2.7 J	0.68 J	3.4 U
m,p-Xylene	ug/m3	3.7	0.43 U	3.3	0.43 U	0.43 J	0.41	0.17 J	0.18 J	0.64	0.3 U	0.34	0.58	0.21 J	0.53	0.3 U	0.42	1.4	0.14 J	0.11 J	0.66	0.24 J	1.2	2	0.27 J
Methyl methacrylate	ug/m3		0.2 U	0.48	0.2 U	0.2 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	0.082 U	0.14 U	0.14 U		0.14 U		0.14 U
Methylene chloride	ug/m3	1.1	0.66	3	2.3	1.7 J	1.5	1.6	3	2.1 B	1.2	2.9	2.3	9.1	1 J	0.76 J	0.55 J	1.2 J	0.54 J	0.47 J	0.44 J	0.47 J	0.48 J	0.54 J	0.43 J
Methyl-t-butyl ether	ug/m3	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	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3																							0.18 U	
n-Heptane	ug/m3	0.91	0.2 U	0.95	0.2 U	0.2 U	0.12 J	0.089 J	0.11 J	0.18	0.14 U	0.12 J	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	0.49	0.14 U
o-Xylene	ug/m3	1.2	0.22 U	1.1	0.22 U	0.22 J	0.22	0.086 J	0.078 J	0.31	0.15 U	0.12 J	0.2	0.15 U	0.24	0.15 U	0.17	0.5	0.054 J	0.046 J	0.25	0.11 J	0.4	0.59	0.15 U
Propylene (Propene)	ug/m3	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77 J	1.3 J	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	2.4 U	1.3 J	1.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.1 J	0.13 J	0.15 U	0.039 J	0.15 U	0.15 U	0.052 J	0.15 U	0.15 U	0.16	0.085 U	0.15 U	0.15 U	0.15 U	0.12 J	0.15 U	0.15 U
Tetrachloroethene	ug/m3	0.49	0.34 U	5.3	0.34 U	0.34 J	0.73	0.1 U	0.2 U	0.87	0.24 U	0.9	0.24 U	0.24 U	0.3	0.24 U	0.24 U	0.4	0.071	0.09 J	0.22 J	0.29	0.35	0.61	0.24 U
Tetrahydrofuran	ug/m3	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057 J	0.088 U	0.088 U	0.43	0.1 U	0.1 U	0.1 U	1.4	0.1 U	0.1 U	0.23	0.1 U	0.059 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toluene	ug/m3	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.13	0.74	1.2	1.4	1.3	0.35	1.2	2.6	0.33	0.35	1.3	0.51	2.9	3.2	0.75
trans-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	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	0.14 U
trans-1,3-Dichloropropene	ug/m3	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	0.16 U	0.045 U	0.16 U	0.064 J	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045 J	0.091 J	0.19 U	0.26	0.19 U	0.19 U	0.11 J	0.19 U	0.19 U	0.19 U	0.052 J	0.19 U	0.19 U	0.19 U	1.1	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	0.2	1.3	1.8	11	3.3	1.5	1.1	1.4	1.3	1.3	1.1	1.5	1.2	1.7	1.1
Trichlorotrifluoroethane	ug/m3	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.27	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	0.6 J	0.51 J
Vinyl acetate	ug/m3	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	2.5 U	1.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.087 U	0.09 U	0.09 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix C.
Summary of Analytical Results - Outdoor Air Reference Sampling
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Outdoor Air Reference Location												
Location:		AA-1												
Sample ID:		AA-1-080516	AA-1-021017	AA-1-090717	AA-1-022818	AA-1-091218	AA-1-020819	AA-1-041119	AA-1-090619	AA-1-021420	AA-1-09092020	AA-1-10292020	AA-1-030821	AA-1
Sample Date:		8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021
Analyte	**Units**													
1,1,1,2-Tetrachloroethane	ug/m3		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	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	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	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	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	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.42	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	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	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	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	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	0.17 U	0.17 U	0.17 U	0.12 J	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.73	0.15 U	0.17
1,2-Dibromoethane (EDB)	ug/m3	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	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.84 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	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	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	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	0.14 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.25 U												
1,3,5-Trimethylbenzene	ug/m3	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	0.19	0.15 U	0.058 J
1,3-Butadiene	ug/m3	0.078 U	0.078 U	0.9	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.49 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.5 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U
1,4-Dioxane	ug/m3	1.3 U												
2-Butanone	ug/m3	1.2 J	0.91 J	2.4 J	1.8 J	1.2 J	2.1 J	0.71 J	0.63 J	1.6 J	1.4 J	0.73 J	0.71 J	1.7 J
2-Hexanone	ug/m3	0.14 U	0.14 U	0.14 U	0.43	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	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	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.14 U	0.3	0.072 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U
Acetone	ug/m3	11	3.1 J	16	24	6.2	10	6.9	5.1	9.8	8.2	15	7.8	11
Benzene	ug/m3	0.35	0.37	2.2	0.47	0.39	1.4	0.22	0.24	0.34	0.15	1.2	0.68	0.51
Benzyl chloride	ug/m3	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	0.16 U	0.18 U
Bromodichloromethane	ug/m3	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	0.23 U	0.23 U	0.2 U	0.23 U
Bromoform	ug/m3	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	0.31 U	0.36 U
Bromomethane	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U
Carbon disulfide	ug/m3	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	1.1 U	0.93 U	1.1 U
Carbon tetrachloride	ug/m3	0.39	0.44	0.4	0.39	0.49	0.91	0.44	0.39	0.41	0.43	0.39	0.71	0.43
Chlorobenzene	ug/m3	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	0.14 U	0.16 U
Chloroethane	ug/m3	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U
Chloroform	ug/m3	0.17 U	0.17 U	0.17 U	0.086 J	0.11 J	0.53	0.17 U	0.17 U	0.17 U	0.13 J	0.31	0.11 J	0.089 J
Chloromethane	ug/m3	1.2	1.2	1.2	1.2	0.93	1.3	1	0.87	1.5	0.14 U	0.14 U	1.8	1.2
cis-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.33	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	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	0.14 U	0.16 U
Cyclohexane	ug/m3	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	0.1 U	0.12 U
Dibromochloromethane	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.64	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	0.64	1	1.5	1.7	2.1	2.2	1.3	1.7	1.6	2	2.5	2.9	2.4
Ethanol	ug/m3	5.5	2.5 J	2.2 J	6.7	2.1 J	12	4	5.9	3.9	6.3	14	11	7.4
Ethyl acetate	ug/m3	6.5	2.3	0.25 U	0.17	0.25 U	0.13 U	1.1	0.13 U	0.13 U	1.3 U	1.3 U	2.4	1.3 U
Ethylbenzene	ug/m3	0.16	0.15 U	0.67	0.17	0.18	0.68	0.15 U	0.17	0.15 U	0.079 J	0.67	0.081 J	0.18
Hexachlorobutadiene	ug/m3	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	0.32 U	0.37 U
Hexane	ug/m3	7.7	0.69 J	0.4 J	0.31 J	0.47 J	2.2 J	4.9 U	4.9 U	4.9 U	4.9 U	0.94 J	4.2 U	4.9 U
Isopropyl alcohol	ug/m3	0.88 J	0.76 J	0.52 J	0.55 J	0.46 J	1.6 J	1.2 J	0.18 J	0.53 J	3.4 U	2.2 J	0.72 J	3.4 U
m,p-Xylene	ug/m3	0.46	0.35	2.4	0.56	0.48	1.7	0.3 U	0.57	0.3 U	0.18 J	1.8	0.31	0.4
Methyl methacrylate	ug/m3		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
Methylene chloride	ug/m3	3.5	1 J	0.26 J	0.39 J	0.28 J	0.94 J	0.29 J	0.28 J	0.42 J	1.2 U	1 J	5.8	0.38 J
Methyl-t-butyl ether	ug/m3	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	0.11 U	0.13 U
Naphthalene	ug/m3	0.18 U											0.16 U	
n-Heptane	ug/m3	0.24	0.14 U	0.47	0.18	0.31	1.1	0.14 U	0.14 U	0.14 U	0.14 U	0.65	0.12 U	0.18
o-Xylene	ug/m3	0.17	0.12 J	0.67	0.21	0.2	0.72	0.15 U	0.22	0.15 U	0.15 U	0.71	0.17	0.15
Propylene (Propene)	ug/m3	2.4 U	0.63 J	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	2.1 U	2.4 U
Styrene	ug/m3	0.15 U	0.15 U	0.46	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15	0.13 U	0.15 U
Tetrachloroethene	ug/m3	0.41	0.24 U	0.24 U	0.24 U	0.24 U	1.1	0.24 U	0.68	0.24 U	0.1 J	0.44	0.11 J	0.24 U
Tetrahydrofuran	ug/m3	0.1 U	0.1 U	0.21 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	1 U	0.88 U	1 U
Toluene	ug/m3	1.1	2.4	2.2	0.77	1.1	2.8	0.31	0.68	0.26	0.52	3.4	0.45	0.86
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.058 J	0.33 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	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	0.14 U	0.16 U
Trichloroethene	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.34	0.19 U	0.19 U	0.19	0.16 U	0.19 U
Trichlorofluoromethane	ug/m3	1.4	1.3	1.1	1.2	1.2	1.8	1.6	1.2	1.5	1.1	1.3	1.6	1.2
Trichlorotrifluoroethane	ug/m3	0.47 J	0.55 J	0.46 J	0.48 J	0.53 J	1.1 U	0.52 J	1.1 U	1.3	0.48 J	1.1 U	0.57 J	0.59 J
Vinyl acetate	ug/m3	1.6 J	2.5 U	2.5 U	0.99 J	0.72 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U
Vinyl chloride	ug/m3	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U	0.089 U	0.077 U	0.089 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1

Summary of All Analytical Results –
Indoor Air Samples for Small Retail Space

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Eastern Small Retail Space																					
Location:			IA-5																					
Sample ID:			IA-5	IA-5-020309	IA-5-021109	IA-5-021809	IA-5-022609	IA-5-030609	IA-5-041409	IA-5-051509	IA-5-061109	IA-5-091709	IA-5-122909	IA-5-032610	IA-5-070110	IA-5-091610	IA-5-120810	IA-5-021711	IA-5-060211	IA-5-091511	IA-5-120811	IA-5-030812	IA-5-061412	IA-5-091312	IA-5-010313
Sample Date:			1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/8/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1																		0.62 U		0.37 U	0.37 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	48	0.92	0.27 U	0.27 U	0.27 U	0.27 U	0.98	0.27 U	0.27 U	0.27 U	0.27 U	0.38	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 J	0.15 J	0.082 U	0.065 J	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.16 J	0.1 U	0.21 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14 J	0.082 U	0.16 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	1.8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.58	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	22	0.45 U	0.45 U	0.52 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.32	0.33	0.36	0.25 U	0.25 U	0.2	0.25 U	0.35	0.25 U	0.25 U	0.25 U	0.25 U	0.73	0.25 U	0.25 U	0.25 U	0.25 J	1.3	0.15 U	0.16	0.29	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	23	0.18 U	0.18 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.066 J	0.061 U	0.044 J	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	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	0.14 U	0.069 U	0.067 J	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U									
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.39	0.15 U	0.077 J	0.11 J	0.17 U
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	0.25	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.076 J	0.18 U	0.18 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.37	0.18 U	0.18 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA															0.18 U			0.18 U					
2-Butanone	ug/m3	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	5.9 J	0.98 J	2 J	0.94 J	2.3 J	4.1 J
2-Hexanone	ug/m3	NA	0.2 U	0.48	0.38	0.27	0.2 U	0.2 U	0.47	0.45	1.1	0.48	0.2 U	0.23	0.44	0.2 U	0.2 U	0.2 U	4.1 U	0.2 J	0.13	0.32	0.081 J	0.17	0.14
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25	0.15 U	0.053 J	0.097 J	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U	0.68	0.23	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.31	0.2 U	0.13	0.18	0.34	0.22	0.14 U
Acetone	ug/m3	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	15	6.6	11	13	13 B	3.3
Benzene	ug/m3	3.3	0.79	0.6	0.99	1.6	0.41	0.55	0.62	0.49	0.53	0.35	0.45	0.65	0.16 U	1.1	0.26	1.1	0.33	0.29	0.38	0.34	0.2	0.53	0.11
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	0.11 J	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.33	0.44	0.5	**0.55**	0.47	**0.61**	0.44	**0.64**	0.46	0.39	0.41	0.48	0.53	0.44	0.54	**0.6**	**0.59**	0.48	0.49	0.46	0.42	0.38	0.22
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.48	0.14 U	0.14 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.059 J	0.093 U
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	**0.55**	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.49	0.073 U	0.14 J	0.17	0.17 U
Chloromethane	ug/m3	80	1.1	1	1.5	1.4	1.1	1.1	1.1	1	1.4	1	2	1.2	1	1	0.76	0.96	1.1	1.3	1	1.1	1.4	1.2	0.072
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.059 U	0.12 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.4	0.17 U	0.17 U	0.17 U	0.17 U	0.45	0.17 U	0.17 U	0.46	0.17 U	0.1 U	0.1 U	0.12	0.21	0.12 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2	2.2	2.5	2.7	2.6	2.6	1.9	2.5	2.2	2.1	1.9	1.8	2.4	1.9	2.3	3.1	1.7	2	2.6	2	2.9	2.8	0.17
Ethanol	ug/m3	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	7.9	5.4	14	43	11	2.6
Ethyl acetate	ug/m3	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.48	0.21	0.66	0.13
Ethylbenzene	ug/m3	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.3	0.23	0.22 U	0.22 U	0.44	0.91	0.22 U	0.3	0.36	0.22 J	1.2	0.13 U	0.16	0.31	0.15 J
Hexachlorobutadiene	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.17 J	0.32 U	0.32 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1	0.52	0.57	0.43	0.48	1	0.3	1.3	1.7	7 J	0.36 J	0.48 J	0.57 J	1.2 J	4.9 J
Isopropyl alcohol	ug/m3	NA	3.8	3.5	580	2.9	3	1.3	1.7	2	19	3.5	3.8	3.8	1.9	8.2	0.12 U	1.7	1.2 U	6.4	2.9 U	2.9 U	2.9 U	3.3 J	3.4 J
m,p-Xylene	ug/m3	NA	0.6	0.74	0.91	1.2	0.43 U	0.43 U	0.68	0.51	0.88	0.59	0.43 U	0.46	1.2	2.4	0.43 U	0.85	0.57	0.53	3	0.12 J	0.36	0.97	0.3
Methyl methacrylate	ug/m3	NA															0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	2	3.6	5.2	1.1	1.2	0.74	2.5	2.9	2	0.7 U	4.3	2.2	1.3	0.75	0.65	2.8	4.2	7.7	1.6	1.6	1.1	2.3 B	1.2
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.039 J	0.11 U	0.11 U	0.18	0.13 U
Naphthalene	ug/m3	NA																							
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.36	0.35	0.2 U	0.2 U	0.23	0.38	0.48	0.2 U	0.2 U	0.2 U	0.2 U	2.1	0.2 U	0.33	0.2 U	0.2 J	0.081 J	0.089 J	0.18	0.32	0.14 U
o-Xylene	ug/m3	NA	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.23	0.32	0.22 U	0.22 U	0.22 U	0.31	0.87	0.22 U	0.3	0.26	0.22 J	1	0.13 U	0.14	0.35	0.15
Propylene (Propene)	ug/m3	NA	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.4 J	2.4 U
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	1.5	0.3	0.21 U	0.35	0.32	0.58	0.21 U	0.21 U	0.21 U	0.21 J	1	0.13 U	0.76	0.24	0.15 U
Tetrachloroethene	ug/m3	5	0.39	0.34 U	0.43	0.43	0.34 U	0.34 U	0.24 U	0.47	0.34 U	0.41	0.34 U	0.34 U	0.34 U	0.34 U	0.39	2.4	0.34 U	0.58	**5.7**	0.15	0.15 J	1.6	0.24 U
Tetrahydrofuran	ug/m3	NA	3.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.1	0.088 U	0.1	0.1 U	0.1 U
Toluene	ug/m3	500	1.3	1.1	3	3.3	0.65	0.51	1.5	2.8	2.8	1.5	0.54	1.5	0.7	6.2	0.19 U	1.8	0.9	0.97	1.9	0.28	0.78	2	0.13
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U
Trichloroethene	ug/m3	1	**5.5**	0.39	0.27 U	0.27 U	0.27 U	0.27 U	0.22	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 J	0.63	0.081 U	0.045 J	0.1 J	0.19 U
Trichlorofluoromethane	ug/m3	500	3	1.3	1.7	1.8	1.5	1.7	1.2	1.3	2	1.2	1.8	1.4	1.5	6.3	1.3	1.7	1.4	1.7	1.1	0.98	1.7	1.6	0.2
Trichlorotrifluoroethane	ug/m3	NA	0.62	0.54	0.48	0.45	0.64	0.48	0.53	0.61	0.54	0.5	0.54	0.55	0.55	0.43	0.52	0.66	0.69	0.63	0.69	0.46	0.53	0.6	0.27
Vinyl acetate	ug/m3	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.43	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.55	0.25 U	0.25 U
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Eastern Small Retail Space																						
Location:			IA-5																						
Sample ID:			IA-5-031513	IA-5-060713	IA-5-090613	IA-5-121313	IA-5-030714	IA-5-061314	IA-5-091214	IA-5-121914	IA-05-032715	IA-5-061115	IA-5-091615	IA-5-121815	IA-5-021816	IA-5-080516	IA-5-021017	IA-5-090717	IA-5-022818	IA-5-091218	IA-5-020819	IA-5-090619	IA-5-021420	IA-5-09092020	IA-5-030821
Sample Date:			3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	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		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	0.37 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.079	0.19 U	0.042 J	0.19 U	0.077 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	0.19 U	0.19 U	0.19 U	0.16 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	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	0.24 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	0.21 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	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	0.19 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	0.16 U
1,1-Dichloroethane	ug/m3	430	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	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	0.12 U
1,1-Dichloroethene	ug/m3	20	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	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	0.12 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.52 U	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.26 U	0.22 U
1,2,4-Trimethylbenzene	ug/m3	52	0.072 J	0.21	0.27	0.17 U	0.69	0.23	0.19	0.17 U	0.13 J	0.12 J	0.23	0.2	0.17 U	0.27	0.17 U	0.19	0.17 U	0.3	0.17 U	0.17 U	0.17 U	0.17 U	0.035 J
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	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	0.27 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	0.23 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.67 J	0.21 U	0.21 U	0.21 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04	0.14 U	0.045 J	0.065 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.057 J	0.08 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U
1,2-Dichloropropane	ug/m3	0.42	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	0.1 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.13 J	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA												0.25 U		0.25 U									
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.057 J	0.17 U	0.038 J	0.038 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.42	0.17 U	0.17 U	0.17 U	0.15 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.58	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.19	0.14	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.057 J	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.5 J	0.21 U	0.21 U	0.21 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.28	0.57 J	0.21 U	0.21 U	0.21 U	0.18 U
1,4-Dioxane	ug/m3	NA												1.3 U		1.3 U									
2-Butanone	ug/m3	500	1.3 J	3.2 J	2.4 J	2.2 J	1.8 J	3.7 J	2.1 J	0.8 J	2.1 J	1.4 J	1.6 J	1.8 J	0.86 J	1.3 J	0.67 J	2.9 J	1.2 J	1.9 J	2.1 J	0.37 J	1.6 J	4.1 U	1.3 J
2-Hexanone	ug/m3	NA	0.16	0.48	0.44	0.14 U	0.32	0.52	0.29	0.14 U	0.43	0.16	0.14 U	0.14 U	0.15	0.31	0.14 U	0.57	0.26	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.09 J	0.17 U	0.17 U	0.041 J	0.079 J	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	0.15 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.19	0.14 U	0.14 U	0.24	0.35	0.17	0.14 U	0.19	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.37	0.078 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U
Acetone	ug/m3	500	9.7	24	19	40	12	25	14	10	14	12	18	23	7.1	18	5.4	24	10	18	12	6.1	12	7.2	11
Benzene	ug/m3	3.3	0.8	0.27	0.68	0.55	2.9	0.55	0.25	0.4	0.54	0.33	0.76	0.93	0.45	0.29	0.45	0.53	0.57	0.44	1.1	0.41	0.38	0.15	0.63
Benzyl chloride	ug/m3	NA	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	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	0.16 U
Bromodichloromethane	ug/m3	0.46	0.24 U	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	0.24 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	0.23 U	0.2 U
Bromoform	ug/m3	7.3	0.36 U	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	0.36 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	0.31 U
Bromomethane	ug/m3	NA	0.14 U	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.12 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.13 J	1.1 U	1.1 U	1.1 U	0.041 J	1.1 U	1.1 U	0.096 J	0.098 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.063 J	0.19 J	1.1 UJ	1.1 U	1.1 U	1.1 U	0.93 U
Carbon tetrachloride	ug/m3	0.54	0.37	**0.59**	0.47	0.5	0.43	0.45	0.45	0.36	0.35	0.37	0.44	0.47	0.33	0.42	0.43	0.41	0.39	0.49	**0.88**	0.37	0.44	0.45	0.34
Chlorobenzene	ug/m3	200	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	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	0.14 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 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	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.092 U	0.079 U
Chloroform	ug/m3	0.5	0.069 J	0.17 U	0.17	0.17 U	0.17 U	0.17 U	0.12	0.099 J	0.062 J	0.14 J	0.19	0.17	0.17 U	0.19	0.17	**0.84**	0.11 J	0.36	**0.55**	0.24	0.17 U	0.12 J	0.15 U
Chloromethane	ug/m3	80	1.2	1.5	1.2	1.3	1.3	1.2	0.67	0.81	0.97	1.3	1.1	1.3	0.91	1.1	1.2	2.4	1.2	1.2	1.3	0.97	1	0.14 U	0.12 U
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.075 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.63	0.14 U	0.14 U	0.14 U	0.12 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	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	0.16 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	0.14 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.4	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.18	0.39	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	0.1 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U
Dichlorodifluoromethane	ug/m3	500	1.6	3.4	1.9	2.5	1.3	2.2	2	1.9	1.3	2	1.7	2.4	2.5	0.54	1.1	1.3	1.7	2.1	2.3	1.6	1.5	0.17 U	1.9
Ethanol	ug/m3	NA	1.9 J	12	15	4.5	18	20	160	7.7	12	25	13	6.8	3.4	38	3.3	130	19	33	15	24	24	99	110
Ethyl acetate	ug/m3	NA	0.13 U	1.5	0.29	0.83	0.17	0.43	0.56	0.29	5	0.17	0.61	0.46	0.47	0.64	0.13 U	0.4	0.16	0.7	0.13 U	0.13 U	0.13 U	1.3 U	2.8
Ethylbenzene	ug/m3	290	0.091 J	0.15 U	0.26	0.15 U	0.65	0.3	0.13	0.12 J	0.17	0.12 J	0.34	0.44	0.26	0.2	0.15 U	0.43	0.098 J	0.47	0.55	0.15 U	0.15 U	0.079 J	0.083 J
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.32 U
Hexane	ug/m3	NA	1.1 J	1.4 J	0.75 J	0.46 J	1.4 J	0.56 J	0.33 J	0.3 J	5.1	0.42 J	0.92 J	0.48 J	0.34 J	0.82 J	4.9 U	0.43 J	0.33 J	0.77 J	0.99 J	4.9 U	4.9 U	4.9 U	4.2 U
Isopropyl alcohol	ug/m3	NA	3.4 U	3.4 U	3.4 U	3.4 U	2.4 J	6.5	180	0.47 J	2.6 J	9.4	5.3	3.4 U	0.68 J	5.7	0.81 J	6.2	2.3 J	26	1.7 J	1.6 J	1.9 J	3.4 U	2 J
m,p-Xylene	ug/m3	NA	0.24 J	0.49	0.81	0.3	1.9	1	0.3	0.54	0.5	0.36	1	2.1	0.2 J	0.55	0.15 J	1.1	0.27 J	1.1	1.3	0.36	0.3 U	0.24 J	0.2 J
Methyl methacrylate	ug/m3	NA	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		0.14 U	0.14 U	0.15	0.1 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U
Methylene chloride	ug/m3	17	2	3	1.1 J	0.83 J	0.67 J	0.73 J	0.66 J	0.28 J	1 J	0.48 J	0.52 J	0.62 J	1.2 J	1.2 J	0.25 J	0.36 J	0.43 J	0.35 J	0.68 J	0.38 J	0.54 J	0.6 J	2.8
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	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	0.13 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	0.11 U
Naphthalene	ug/m3	NA												0.18 U		0.2									
n-Heptane	ug/m3	NA	0.14 U	0.18	0.46	0.14 U	0.75	0.56	0.21	0.14 U	0.17	0.17	0.35	0.28	0.14 U	0.27	0.14 U	0.37	0.18	0.69	0.65	0.35	0.14 U	0.14 U	0.36
o-Xylene	ug/m3	NA	0.1 J	0.17	0.33	0.15 U	0.75	0.32	0.11	0.13 J	0.18	0.13 J	0.36	0.6	0.24	0.21	0.15 U	0.4	0.12 J	0.4	0.58	0.15 U	0.15 U	0.1 J	0.078 J
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	1.1 J	1.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.78 J	1.6 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U
Styrene	ug/m3	290	0.15 U	0.15 U	0.2	0.15 U	0.18	0.15 U	0.089	0.15 U	0.036 J	0.096 J	0.18	0.15 U	0.15 U	0.15 U	0.15 U	0.31	0.15 U	0.48	0.15 U	0.15 U	0.15 U	0.11 J	0.13 U
Tetrachloroethene	ug/m3	5	0.12 J	0.24 U	0.24 U	0.24 U	0.39	0.54	0.24	0.13 J	0.39	0.2 J	0.18 J	0.43	0.24 U	2	0.24 U	0.44	0.17 J	0.62	1.5	0.82	0.24 U	0.18 J	0.22
Tetrahydrofuran	ug/m3	NA	0.1 U	0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.13 J	0.1 U	0.17	0.1 U	0.1 U	0.1 U	1 U	0.88 U
Toluene	ug/m3	500	0.61	0.95	2.6	0.89	3.8	2.2	0.65	0.78	0.74	0.75	2.7	2.6	0.43	1.4	0.43	2.2	0.83	3	1.6	5.7	0.34	0.54	0.58
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 J	0.33 J	0.14 U	0.14 U	0.14 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	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	0.16 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	0.14 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.19 U	0.19 U	0.23	0.19 U	0.075	0.19 U	0.083 J	0.19 U	0.17 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.15 J	0.93	0.45	0.19 U	0.19 U	0.16 U
Trichlorofluoromethane	ug/m3	500	1.3	2.1	1.6	1.6	1.7	1.4	1.3	1.3	1.1	1.5	1.3	1.8	1	1	1.3	1.1	1.1	1.2	1.8	1.2	1.2	1.1	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.6	1.4	0.63	0.54	0.47	0.58	0.54	0.64	0.49 J	0.67 J	0.59 J	0.58 J	0.46 J	0.48 J	0.53 J	0.44 J	0.48 J	0.53 J	1.1 U	1.1 U	0.42 J	1.1 U	0.44 J
Vinyl acetate	ug/m3	NA	0.25 U	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	2.5 U	1.8 J	2.5 U	2.5 U	2.5 U	1.1 J	2.5 U	1.5 J	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U	0.077 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Eastern Small	Small Center Retail Space																					
Location:		IA-5	IA-6																					
Sample ID:		IA-5	IA-6	IA-6-020309	IA-6-021109	IA-6-021809	IA-6-022609	IA-6-030609	IA-6-041409	IA-6-051509	IA-6-061109	IA-6-091709	IA-6-122909	IA-6-032610	IA-6-070110	IA-6-091610	IA-6-120710	IA-6-021711	IA-6-060211	IA-6-091511	IA-6-120811	IA-6-030812	IA-6-061412	IA-6-091312
Sample Date:		9/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U																	0.62 U		0.37 U	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	110	3.9	0.27 U	0.29	0.27 U	0.27 U	1.6	0.27 U	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.085 J	0.082 U	0.072 J	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	3.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.52 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	2.8	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17	0.75	0.32	0.29	1.5	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.34	0.25 U	0.25 U	0.25 U	0.33	0.25 U	0.35	0.25 U	0.25	0.16	0.15 U	0.21	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	1.7	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 J	0.061 U	0.056 J	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.061 J	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U									
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.25 U	0.25 U	0.25 U	0.38	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.059 J	0.15 U	0.091 J	0.17 U
1,3-Butadiene	ug/m3	NA	0.077 U	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.3 U	0.3 U	0.3 U	0.41	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 J	0.18 U	0.18 U	0.13 J	0.21 U
1,4-Dioxane	ug/m3	NA																		0.18 U					
2-Butanone	ug/m3	500	1.7 J	120	10	3.2	2.9	2.4	2.3	1	2.5	4.1	2.4	1.8	1.4	1.1	0.89	0.87	1.9 B	2.9 U	5.9 J	1.3 J	0.63 J	1.4 J	2.8 J
2-Hexanone	ug/m3	NA	0.29 U	0.2 U	0.42	0.37	0.34	0.2 U	0.37	0.14 U	0.62	0.72	0.7	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.22	4.1 U	0.6	0.15	0.12 U	0.2	0.27
4-Ethyltoluene	ug/m3	NA	0.17 U	0.25 U	0.25 U	0.25 U	0.47	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.14 U	0.34	0.7	0.29	0.2 U	0.2 U	0.2 U	0.4	0.2 U	0.2 U	0.28	0.31	0.13	0.12 U	0.92	0.25
Acetone	ug/m3	500	12	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14	13	11 B	14 B	19 B	26	10	7.4	15	18 B
Benzene	ug/m3	3.3	0.43	1	0.6	0.98	**4.1**	0.41	0.7	0.59	0.47	0.43	0.31	0.4	0.55	0.19	0.6	0.44	1.3	0.29	0.31	0.42	0.39	0.2	0.49
Benzyl chloride	ug/m3	NA	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U
Bromoform	ug/m3	7.3	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	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U
Carbon disulfide	ug/m3	NA	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 J	0.93 U	0.93 U	0.93 U	0.2 J
Carbon tetrachloride	ug/m3	0.54	0.44	0.39	0.42	0.52	**0.59**	0.47	**0.6**	0.42	**0.77**	0.45	0.42	0.4	0.43	**0.55**	0.44	0.46	**0.57**	**0.64**	0.52	0.46	0.48	0.44	0.37
Chlorobenzene	ug/m3	200	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.45	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U
Chloroform	ug/m3	0.5	0.12 J	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	0.36	0.36	0.24 U	0.24 U	0.24 U	0.24 J	0.1 J	0.073 U	0.24	0.17
Chloromethane	ug/m3	80	1.2	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	1.9	0.97	1.8	1.4	1	1.1	0.95	0.92	1.1	1.4	1.3	1.2	1.4	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.098 J	0.059 U	0.052 J	0.042 J
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.29	0.17 U	0.1 U	0.1 U	0.1 U	0.2
Dibromochloromethane	ug/m3	NA	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.4	2	2.1	2.6	2.8	2.6	2.6	2	2.7	2.5	2.2	1.9	1.6	2.4	1.6	1.9	3.1	1.8	1.9	2.9	2	2.9	2.8
Ethanol	ug/m3	NA	18	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18	36	5.9	10	7.7	14	24	41	67	23
Ethyl acetate	ug/m3	NA	1.3 U	0.37 U	0.37 U	0.18 U	0.22	0.37 U	0.18 U	0.26 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.48	0.69	0.31	1
Ethylbenzene	ug/m3	290	0.18	0.29	0.25	0.33	1.6	0.22 U	0.22 U	0.21	0.22 U	0.24	0.23	0.22 U	0.22 U	0.22 U	0.43	0.22 U	0.45	0.22 U	0.22 J	0.15	0.22	0.71	0.23
Hexachlorobutadiene	ug/m3	NA	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U
Hexane	ug/m3	NA	4.9 U	1.2	0.78	0.7	2.6	0.33	0.4	0.63	0.38	0.68	0.45	0.18 U	0.22	1.3	0.69	0.39	1.5	0.41	7 J	0.41 J	0.48 J	0.73 J	1 J
Isopropyl alcohol	ug/m3	NA	1.5 J	4.7	6.6	3.2	4.9	1.7	1.6	0.18 U	4.5	22	7	1.4	4.9	1	3.2	1.1	2.8	1.2 U	11	2.9 U	2.9 U	2.9 U	6.7
m,p-Xylene	ug/m3	NA	0.51	0.82	0.72	0.84	4.9	0.43 U	0.43 U	0.51	0.43 U	0.67	0.62	0.43 U	0.51	0.58	1.1	0.43 U	1.2	0.48	0.59	0.45	0.54	0.73	0.38
Methyl methacrylate	ug/m3	NA	0.14 U															0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.12 U	0.14 U
Methylene chloride	ug/m3	17	0.41 J	2.5	5.2	0.59	1.6	0.83	0.69	2	2	2.6	0.7 U	2.9	0.7 U	4.5	0.64	0.94	3	1	1.7 J	1.5	1.8	1.5	2.2 B
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.14
Naphthalene	ug/m3	NA																							
n-Heptane	ug/m3	NA	0.21	0.27	0.2 U	0.32	1.3	0.2 U	0.2 U	0.21	0.2 U	0.26	0.2 U	0.2 U	0.2 U	1.4	0.47	0.2 U	0.35	0.2 U	0.2	0.11 J	0.15	0.25	0.31
o-Xylene	ug/m3	NA	0.18	0.36	0.26	0.34	1.8	0.22 U	0.22 U	0.19	0.22 U	0.25	0.23	0.22 U	0.22 U	0.22 U	0.42	0.22 U	0.4	0.22 U	0.22	0.17	0.13	0.29	0.12 J
Propylene (Propene)	ug/m3	NA	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.4 J
Styrene	ug/m3	290	0.056 J	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	0.25	0.21 U	0.23	0.21 U	0.21 U	0.24	0.29	0.21 U	0.21 U	0.27	0.22	0.13 J	0.13 U	1.2	0.054 J
Tetrachloroethene	ug/m3	5	0.21 J	1.2	0.34 U	0.45	1.2	0.34 U	0.34 U	0.72	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	1.6	0.34 U	0.58	0.68	0.15	0.57	2.6
Tetrahydrofuran	ug/m3	NA	1 U	77	2.8	0.32	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15	0.12	0.088 U	0.088 U	0.1 U
Toluene	ug/m3	500	1.1	1.8	1.3	2.5	11	0.65	0.71	1.3	0.81	2	1.1	0.49	1.6	1.7	2.6	0.4	2.9	0.93	1.2	1.2	1.4	1.1	1.5
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U
Trichloroethene	ug/m3	1	0.2	**13**	**1.7**	0.27 U	0.34	0.27 U	0.27 U	0.6	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.27 U	0.27 U	0.19	0.081 U	0.24	0.2
Trichlorofluoromethane	ug/m3	500	1.3	4.8	1.3	1.7	2.5	1.5	1.7	1.4	1.2	2.2	1.2	1.7	1.3	1.5	3.1	1.1	1.6	1.1	1.7	1.4	1	1.6	1.7
Trichlorotrifluoroethane	ug/m3	NA	0.59 J	0.64	0.51	0.48	0.45	0.64	0.48	0.53	0.74	0.63	0.48	0.51	0.55	0.55	0.42	0.52	0.69	0.67	0.56	0.68	0.44	0.57	0.62
Vinyl acetate	ug/m3	NA	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U
Vinyl chloride	ug/m3	1.9	0.089 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Small Center Retail Space																						
Location:			IA-6																						
Sample ID:			IA-6-010313	IA-6-031513	IA-6-060713	IA-6-090613	IA-6-121313	IA-6-030714	IA-6-061314	IA-6-091214	IA-6-121914	IA-06-032715	IA-6-061115	IA-6-091615	IA-6-121815	IA-6-021816	IA-6-080516	IA-6-021017	IA-6-090717	IA-6-022818	IA-6-091218	IA-6-020819	IA-6-090619	IA-6-021420	IA-6-09092020
Sample Date:			1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	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	0.44 U	0.44 U	0.44 U		0.44 U		0.44 U	0.44 U	0.44 U	0.44 U	0.5 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	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	0.19 U	0.19 U	0.14 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	0.39	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	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	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
1,1-Dichloroethane	ug/m3	430	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	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
1,1-Dichloroethene	ug/m3	20	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	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	ug/m3	NA	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	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	0.52 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.076 J	0.21	0.27	0.17 U	0.55	0.21	0.29	0.17 U	0.13 J	0.13 J	0.066 J	0.17 U	0.17 U	0.31	0.17 U	0.15 J	0.17 U	0.33	0.17 U	0.29	0.17 U	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.73 J	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	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	0.14 U	0.054 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.06 J	0.097 J	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.13 J	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA													0.25 U		0.25 U								
1,3,5-Trimethylbenzene	ug/m3	52	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	0.038 J	0.052 J	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
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.59	0.078 U	0.044 U	0.078 U	0.061 J	0.078 U	0.14	0.12	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.064 J	0.078 U	0.078 U	0.078 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.58 J	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.27	0.65 J	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA													1.3 U		1.3 U								
2-Butanone	ug/m3	500	4.1 J	1.4 J	0.91 J	2.8 J	2.2 J	1.6 J	3.1 J	0.66 J	0.81 J	1 J	1.2 J	1.1 J	0.73 J	0.51 J	1.8 J	0.65 J	3.7 J	0.91 J	2.5 J	2.9 J	0.85 J	0.59 J	0.63 J
2-Hexanone	ug/m3	NA	0.14 U	0.2	0.14 U	0.48	0.14 U	0.29	0.41	0.043 J	0.14 U	0.18	0.12 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.22	0.16	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.073 J	0.17 U	0.045 J	0.055 J	0.059 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.55	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.3	0.14 U	0.22	0.24	0.092	0.14 U	0.12 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.37	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Acetone	ug/m3	500	3.3	10	20	29	27	12	26	9.2	8.2	9.2	11	17	9.3	5	21	7	38	7.8	29	14	11	7.7	11
Benzene	ug/m3	3.3	0.11	0.8	0.23	0.7	0.53	2.4	0.67	0.26	0.37	0.53	0.23	0.56	1.1	0.39	0.41	0.61	0.5	0.64	0.49	0.94	0.48	0.4	0.11 U
Benzyl chloride	ug/m3	NA	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	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
Bromodichloromethane	ug/m3	0.46	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	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	0.23 U
Bromoform	ug/m3	7.3	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	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
Bromomethane	ug/m3	NA	0.14 U	0.14 U	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	0.13 J	1.1 U	1.1 U	0.23 J	0.057 J	1.1 U	0.039 J	0.083 J	0.16 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.32 J	1.1 U	1.1 U	1.1 U	0.38 J
Carbon tetrachloride	ug/m3	0.54	0.22	0.42	**0.58**	0.47	0.45	0.45	0.43	0.42	0.33	0.31	0.37	0.41	0.54	0.35	0.42	0.44	0.41	0.38	0.5	**0.92**	0.35	0.45	0.44
Chlorobenzene	ug/m3	200	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	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
Chloroethane	ug/m3	500	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	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.092 U
Chloroform	ug/m3	0.5	0.17 U	0.075 J	0.17 U	0.19	0.17 U	0.17 U	0.25	0.11	0.082 J	0.069 J	0.15 J	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.1 J	0.45	0.17 U	0.17 U	0.17 U	0.22
Chloromethane	ug/m3	80	0.072	1.4	1.5	1.1	1.2	1.3	1.9	1	0.88	0.95	1.2	1.1	1.3	1	1.2	1.2	1.3	1.2	1.3	1.4	1	1.1	0.14 U
cis-1,2-Dichloroethene	ug/m3	100	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	0.1 J	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
cis-1,3-Dichloropropene	ug/m3	NA	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	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
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.34	0.16	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.49	0.12 U	0.12 U	0.12 U	0.12 U	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	0.17	1.7	3.4	1.9	2.5	1.5	2.1	2.1	1.9	1.4	2.6	1.7	2.3	1.5	0.55	0.99	1.4	1.7	2.2	2.2	1.7	1.5	0.17 U
Ethanol	ug/m3	NA	2.6	2.9	20	21	6.1	20	38	160	9.4	17	29	31	8.5	3.6	15	6.5	21	29	59	49	30	41	1500
Ethyl acetate	ug/m3	NA	0.13	0.34	0.64	0.42	0.13 U	0.17	0.34	1.7	0.13 U	0.3	0.13 U	0.51	1.6	0.13 U	40	30	1.9	0.13	0.74	0.13 U	0.13 U	0.13 U	1.3 U
Ethylbenzene	ug/m3	290	0.15	0.11 J	0.18	0.29	0.15 U	0.56	0.2	0.18	0.088 J	0.18	0.13 J	0.22	0.26	0.15 U	0.26	0.15 U	0.27	0.11 J	0.42	0.49	0.31	0.15 U	0.15 J
Hexachlorobutadiene	ug/m3	NA	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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	4.9 J	0.76 J	0.83 J	0.85 J	0.38 J	1.2 J	0.69 J	0.35 J	0.29 J	4.9 J	0.32 J	0.72 J	0.9 J	4.9 U	2.1 J	1.8 J	0.75 J	0.35 J	1.4 J	4.9 U	0.35 J	4.9 U	4.9 U
Isopropyl alcohol	ug/m3	NA	3.4 U	3.4 U	3.4 U	3.4 U	0.85 J	1.7 J	8.1	3.4	0.52 J	3.1 J	4.7	7.7	3.4 U	3.4 U	3.3 J	1.6 J	3.4 J	6.4	35	3.1 J	3.9	2 J	3.4 U
m,p-Xylene	ug/m3	NA	0.3	0.31	0.54	0.81	0.2 J	1.6	0.64	0.36	0.31	0.44	0.35	0.53	0.87	0.2 J	0.77	0.22 J	0.81	0.27 J	1	1.1	0.9	0.3 U	0.39
Methyl methacrylate	ug/m3	NA	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		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	1.2	1.1 J	1.3	1.1 J	0.71 J	0.64 J	0.83 J	0.64 J	0.28 J	0.49 J	0.41 J	0.49 J	1.2 J	0.37 J	2.6	2.1	0.52 J	0.45 J	1 J	0.77 J	0.39 J	0.56 J	1.2 U
Methyl-t-butyl ether	ug/m3	190	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	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
Naphthalene	ug/m3	NA													0.18 U		0.2								
n-Heptane	ug/m3	NA	0.14 J	0.1 J	0.14	0.47	0.14 U	0.71	1.1	0.16	0.14 U	0.15	0.14 J	0.24	0.36	0.14 U	0.49	0.14 U	0.23	0.22	0.88	0.72	0.51	0.14 U	0.34
o-Xylene	ug/m3	NA	0.15	0.13 J	0.21	0.32	0.15 U	0.64	0.24	0.14	0.085 J	0.18	0.13 J	0.17	0.29	0.15 U	0.29	0.15 U	0.28	0.12 J	0.41	0.52	0.33	0.15 U	0.18
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.81 J	1.4 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	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	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	0.036 J	0.093 J	0.06 J	0.15 U	0.15 U	0.22	0.15 U	0.16	0.15 U	0.68	0.15 U	0.15 U	0.15 U	0.21
Tetrachloroethene	ug/m3	5	0.24 U	0.12 J	0.24 U	0.24 U	0.24 U	0.24	0.32	0.49	0.12 J	0.72	0.21 J	0.34	0.33	0.24 U	0.24	0.24 U	0.21 J	0.2 J	1.2	0.99	2.6	0.24 U	0.62
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.17	0.046 J	0.1 U	0.1 U	0.1 U	0.077 J	0.1 U	0.1 U	0.1 U	0.1 U	0.17 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U
Toluene	ug/m3	500	0.13	0.65	1.1	2.6	0.49	3.4	1.3	0.72	0.5	0.76	0.77	1.8	1.7	0.48	8.7	1.4	1.7	0.95	3.7	1.3	4.2	0.36	1.3
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U	0.14 U	0.17	0.14 U	0.14 U	0.14 U	0.14 U	0.34 J	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	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
Trichloroethene	ug/m3	1	0.19 U	0.072 J	0.19 U	0.19 U	0.19 U	0.21	0.19 U	0.12	0.19 U	0.075 J	0.19 U	0.44	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.24	0.54	**1.5**	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	0.2	1.3	2.1	1.7	1.5	1.7	1.3	1.3	1.3	1	1.5	1.3	1.7	1.1	1.1	1.4	1.2	1.2	1.2	1.8	1.2	1.2	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.27	0.65	1	0.66	0.58	0.46	0.53	0.54	0.64	0.47 J	0.67 J	0.58 J	0.61 J	0.48 J	0.5 J	0.54 J	0.45 J	0.48 J	0.54 J	1.1 U	1.1 U	0.42 J	1.1 U
Vinyl acetate	ug/m3	NA	0.25 U	0.25 U	0.25 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	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	3	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.33	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.084	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Small Center Retail Space		Western Small Retail Space																				
		Location:	IA-6		IA-7																				
		Sample ID:	IA-6-030821	IA-6	IA-7	IA-7-020309	IA-7-021109	IA-7-021809	IA-7-022609	IA-7-030609	IA-7-041409	IA-7-051509	IA-7-061109	IA-7-091709	IA-7-122909	IA-7-032610	IA-7-070110	IA-7-091610	IA-7-120710	IA-7-021711	IA-7-060211	IA-7-091511	IA-7-120811	IA-7-030812	IA-7-061412
		Sample Date:	3/8/2021	9/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.44 U																		0.62 U		0.37 U	0.37 U
1,1,1-Trichloroethane	ug/m3	500	0.16 U	0.19 U	44	2.4	0.4	1.3	0.27 U	0.27 U	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069 J	0.082 U	0.088 J
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.21 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	0.34 U	0.21 U	0.1 U	0.21 U
1,1,2-Trichloroethane	ug/m3	12	0.16 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U
1,1-Dichloroethane	ug/m3	430	0.12 U	0.14 U	1.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U
1,1-Dichloroethene	ug/m3	20	0.12 U	0.14 U	0.52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.22 U	0.52 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.17 J
1,2,4-Trimethylbenzene	ug/m3	52	0.15 U	0.25	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)	ug/m3	0.038	0.23 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U
1,2-Dichlorobenzene	ug/m3	410	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.07 J	0.061 U	0.051 J
1,2-Dichloropropane	ug/m3	0.42	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.3	0.23 U	0.23 U	0.23 U	**0.63**	0.23 J	0.14 U	0.069 U	0.14 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA			0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U								
1,3,5-Trimethylbenzene	ug/m3	52	0.15 U	0.089 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.1 J	0.15	0.083 J
1,3-Butadiene	ug/m3	NA	0.066 U	0.077 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	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	ug/m3	410	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.2 J	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.065 J
1,4-Dioxane	ug/m3	NA																				0.18 U			
2-Butanone	ug/m3	500	0.53 J	1.6 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 J	2.1 J	0.97 J	1.1 J
2-Hexanone	ug/m3	NA	0.25 U	0.29 U	0.2 U	0.29	0.2 U	0.91	0.2 U	0.2 U	0.14 U	0.53	1.5	0.53	0.2 U	0.2 U	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73	0.12 U	0.081 J	0.23
4-Ethyltoluene	ug/m3	NA	0.15 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.074 J	0.097 J	0.065 J
4-Methyl-2-pentanone	ug/m3	200	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.42	0.2 U	0.2 U	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15	0.13	1.4
Acetone	ug/m3	500	6	15	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	ug/m3	3.3	0.62	0.78	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43	0.52	0.53	0.27	0.56	0.45	1.1	0.41	0.34	0.44	0.36	0.2
Benzyl chloride	ug/m3	NA	0.16 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U
Bromodichloromethane	ug/m3	0.46	0.2 U	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U
Bromoform	ug/m3	7.3	0.31 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	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U
Bromomethane	ug/m3	NA	0.12 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U
Carbon disulfide	ug/m3	NA	0.93 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 J	0.93 U	0.93 U	0.93 U
Carbon tetrachloride	ug/m3	0.54	0.46	0.4	0.32	0.44	0.52	**0.56**	0.48	**0.6**	0.43	**0.65**	0.43	0.42	0.44	0.43	0.5	0.47	0.45	**0.56**	**0.69**	0.5	0.45	0.46	0.43
Chlorobenzene	ug/m3	200	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U
Chloroethane	ug/m3	500	0.079 U	0.092 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U
Chloroform	ug/m3	0.5	0.15 U	0.17 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	0.38	0.24 U	0.24 U	0.24 U	0.34	0.12 J	0.073 U	0.13 J
Chloromethane	ug/m3	80	0.12 U	1.3	1.7	0.98	1.4	1.5	1	1.2	1.1	0.93	1.8	1.2	2.1	1.2	1.3	1.4	0.99	1	1.6	1.6	1.3	1.6	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.12 U	0.14 U	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14	0.2 U	0.2 U	0.2 U	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.064 J	0.059 U	0.12 U
cis-1,3-Dichloropropene	ug/m3	NA	0.14 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
Cyclohexane	ug/m3	NA	0.1 U	0.12 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.26 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U
Dichlorodifluoromethane	ug/m3	500	0.15 U	2.4	2.1	2.2	2.6	2.7	2.6	2.6	2	2.4	2.7	2.3	2.1	1.8	2.7	1.7	2	3.1	2.5	1.8	2.8	2.1	2.7
Ethanol	ug/m3	NA	390	140	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	ug/m3	NA	1.1 U	27	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21	1.8	0.94	0.39
Ethylbenzene	ug/m3	290	0.13	0.24	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 J	0.24
Hexachlorobutadiene	ug/m3	NA	0.32 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U
Hexane	ug/m3	NA	0.54 J	4.9 U	0.9	0.87	0.91	2	1.1	0.6	0.69	0.33	1.5	0.88	0.25	0.33	0.7	0.64	0.5	1.3	0.58	7 J	3.9 J	0.8 J	0.67 J
Isopropyl alcohol	ug/m3	NA	1.8 J	3.2 J	3.7	6.2	3.6	8.3	0.25 U	2.7	0.18 U	7	14	4	1.9	18	5.8	28	2.8	11	1.2 U	77	2.9 U	2.9 U	48
m,p-Xylene	ug/m3	NA	0.29	0.65	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	0.3	0.54
Methyl methacrylate	ug/m3	NA	0.12 U	0.14 U															0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.12 U
Methylene chloride	ug/m3	17	2.4	2.4	1.9	5.7	0.92	1.5	6.3	1.4	4.2	2.3	5.7	0.7 U	2.9	0.7 U	1.3	0.6	1.3	2.5	1.1	1.7 J	13	2.8	1.4
Methyl-t-butyl ether	ug/m3	190	0.11 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	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
Naphthalene	ug/m3	NA																							
n-Heptane	ug/m3	NA	0.12 U	0.51	0.2	0.2 U	0.37	1.2	0.2 U	0.2 U	0.17	0.2 U	0.34	0.37	0.2 U	0.29	0.5	0.68	0.33	0.47	2	1.1	0.46	0.47	0.65
o-Xylene	ug/m3	NA	0.12 J	0.28	0.24	0.31	0.39	0.97	0.24	0.22 U	0.16 U	0.22 U	0.25	0.31	0.6	0.28	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.3	0.17	0.2
Propylene (Propene)	ug/m3	NA	2.1 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U
Styrene	ug/m3	290	0.13 U	0.22	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	0.7	0.39	0.21 U	0.21 U	0.97	0.63	0.18	0.097 J	0.26
Tetrachloroethene	ug/m3	5	0.24	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	0.34 U	1	0.34 U	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66	0.14	0.15 J
Tetrahydrofuran	ug/m3	NA	0.88 U	1 U	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	ug/m3	500	0.58	2.4	1.5	1.6	2.7	7.5	1.5	0.76	0.48	0.61	2.3	4	0.57	7.2	8.4	3.5	0.48	1.6	6.6	3.7	1.2	0.48	1.4
trans-1,2-Dichloroethene	ug/m3	200	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	NA	0.14 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	ug/m3	1	0.16 U	0.16 J	**4.6**	**1.1**	0.28	0.58	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.27 U	0.4	0.27 U	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16	0.081 U	0.077 J
Trichlorofluoromethane	ug/m3	500	1	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	1.3	1.1	1.7
Trichlorotrifluoroethane	ug/m3	NA	0.92 U	0.67 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	ug/m3	NA	2.1 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U
Vinyl chloride	ug/m3	1.9	0.077 U	0.089 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Western Small Retail Space																						
Location:			IA-7																						
Sample ID:			IA-7-091312	IA-7-010313	IA-7-031513	IA-7-060713	IA-7-090613	IA-7-100313	IA-7-121313	IA-7-030714	IA-7-061314	IA-7-091214	IA-7-121914	IA-07-032715	IA-7-061115	IA-7-091615	IA-7-121815	IA-7-021816	IA-7-080516	IA-7-021017	IA-7-090717	IA-7-022818	IA-7-091218	IA-7-020819	IA-7-090619
Sample Date:			9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	10/3/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	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		0.44 U		0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	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	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	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
1,1,2-Trichloroethane	ug/m3	12	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	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.4	0.19 U
1,1-Dichloroethane	ug/m3	430	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	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	ug/m3	20	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	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	ug/m3	NA	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.46	0.17 U	0.1 J	0.58	0.4	0.7	0.25	0.38	0.31	0.37	0.052 J	0.33	0.21	0.15 J	0.28	0.17 U	0.23	0.17 U	0.21	0.17 U	0.29	0.54	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	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
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.65 J	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.11 J	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.065 J	0.19	0.18	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.062 J	**0.34**	0.14 U	**0.46**
1,2-Dichloropropane	ug/m3	0.42	0.094 J	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.097 J	0.4	**0.8**
1,2-Dichlorotetrafluoroethane	ug/m3	NA															0.25 U		0.25 U							
1,3,5-Trimethylbenzene	ug/m3	52	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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.39	0.17 U
1,3-Butadiene	ug/m3	NA	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	0.14	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.5	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.063 J	0.21 U	0.21 U	0.21 U	0.21 U	0.086 J	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.16 J	0.15 J	0.055 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.57	0.21 U
1,4-Dioxane	ug/m3	NA															1.3 U		1.3 U							
2-Butanone	ug/m3	500	2.8 J	4.1 J	1.9 J	1.7 J	1.6 J	3.8 J	0.69 J	1.5 J	3 J	2.2 J	0.75 J	1.4 J	1.7 J	1.7 J	2 J	0.59 J	1.9 J	0.81 J	2.4 J	1.9 J	1.3 J	2.1 J	1.1 J
2-Hexanone	ug/m3	NA	0.41	0.14	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	0.28	0.14 U	0.36	0.14 U	0.43	0.37	0.14 U	0.14 U	0.14 U
4-Ethyltoluene	ug/m3	NA	0.16 J	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.065 J	0.17 U	0.09 J	0.069 J	0.055 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.49	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.29	0.14	0.14 U	0.21	0.2	0.44	0.14 U	0.14 U	0.34	0.18	0.14 U	0.18	0.15	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.28	0.1 J	0.14 U	0.14 U	0.14 U
Acetone	ug/m3	500	24 B	3.3	15	49	46	46	20	15	30	41	12	16	24	39	15	9.1	33	7.5	37	14	23	13	18
Benzene	ug/m3	3.3	0.49	0.11	0.87	0.32	0.43	1.8	0.54	1.9	0.57	0.36	0.4	0.57	0.27	0.91	0.97	0.43	0.27	0.47	0.47	0.53	0.5	0.85	0.4
Benzyl chloride	ug/m3	NA	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	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
Bromodichloromethane	ug/m3	0.46	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	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
Bromoform	ug/m3	7.3	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	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
Bromomethane	ug/m3	NA	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	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	1.4 U
Carbon disulfide	ug/m3	NA	0.09 J	1.1 U	1.1 U	0.16 J	0.6 J	0.14 J	1.1 U	1.1 U	0.15 J	0.11 J	1.1 U	0.042 J	0.1 J	0.15 J	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
Carbon tetrachloride	ug/m3	0.54	0.38	0.22	0.39	**0.55**	0.46	0.45	0.49	0.42	0.45	0.46	0.33	0.34	0.36	0.39	0.51	0.37	0.45	0.42	0.4	0.37	0.5	**0.83**	0.43
Chlorobenzene	ug/m3	200	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	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
Chloroethane	ug/m3	500	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	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.076 J	0.19 U	0.093 U
Chloroform	ug/m3	0.5	0.2	0.17 U	0.082 J	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	0.17 U	0.17 U	0.2	0.15 J	0.31	0.13 J	0.23	**0.57**	0.34
Chloromethane	ug/m3	80	1.3	0.072	1.4	1.5	1.3	1.2	1.2	1.4	1.4	0.76	0.86	1	1.3	1.3	1.4	1	1.4	1.2	1.5	1.3	1.9	0.14 U	0.14 U
cis-1,2-Dichloroethene	ug/m3	100	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	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
cis-1,3-Dichloropropene	ug/m3	NA	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	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
Cyclohexane	ug/m3	NA	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.3	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.9	0.17	1.7	3.1	2.1	1.5	2.7	1.5	2.1	2.2	1.8	1.3	1.9	1.8	2.3	1.6	0.57	0.88	1.4	1.7	2.1	2.5	0.17 U
Ethanol	ug/m3	NA	60	2.6	11	45	21	40	25	50	79	96	39	110	110	440 E	33	13	23	15	95	46	28	45	200
Ethyl acetate	ug/m3	NA	0.57	0.13	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	0.31	0.32	1.4	3.5	1.7	0.17	0.35	0.13 U	0.13 U
Ethylbenzene	ug/m3	290	0.45	0.15	0.14 J	0.36	0.48	0.62	0.15 U	0.43	0.35	0.2	0.085 J	0.58	0.19	0.3	0.25	0.15 U	0.31	0.15 U	0.29	0.14 J	0.37	0.48	0.48
Hexachlorobutadiene	ug/m3	NA	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	0.21 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	0.75 U	0.37 U
Hexane	ug/m3	NA	0.97 J	4.9 J	0.87 J	2.9 J	1.3 J	0.97 J	0.39 J	1.1 J	0.9 J	0.37 J	0.35 J	4.9 J	0.36 J	0.67 J	0.52 J	0.28 J	1.9 J	0.36 J	0.65 J	0.29 J	0.78 J	4.9 U	4.9 U
Isopropyl alcohol	ug/m3	NA	22	3.4 J	3.4 U	3.4 U	3.4 U	6	40	1.9 J	11	2 U	1.4 J	30	11	30	3.4 U	4.8	3.4 U	8.5	3.4 U	3.8	92	5.6	18
m,p-Xylene	ug/m3	NA	1.4	0.3	0.4	1.1	1.2	1.8	0.25 J	1.2	1.1	0.54	0.29 J	0.67	0.48	0.64	0.84	0.27 J	0.93	0.16 J	0.82	0.3 J	1.1	1.1	1.5
Methyl methacrylate	ug/m3	NA	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		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	2.3 B	1.2	1.4	6.1	1.3	1.1 J	0.76 J	0.68 J	0.74 J	0.63 J	0.39 J	0.6 J	0.58 J	0.54 J	1.2 J	0.4 J	1.1 J	0.49 J	0.59 J	0.46 J	0.39 J	0.66 J	0.4 J
Methyl-t-butyl ether	ug/m3	190	0.11 J	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	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
Naphthalene	ug/m3	NA															0.18 U		0.21						
n-Heptane	ug/m3	NA	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	0.28	0.14 U	0.29	0.14 U	0.29	0.17	0.44	0.14 U	0.43
o-Xylene	ug/m3	NA	0.56	0.15	0.15 J	0.4	0.44	0.85	0.15 U	0.44	0.39	0.19	0.088 J	0.26	0.19	0.23	0.3	0.15 U	0.34	0.15 U	0.29	0.12 J	0.38	0.48	0.51
Propylene (Propene)	ug/m3	NA	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 J	1.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.78 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.89	0.15 U	0.081 J	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	0.18	0.15 U	0.41	0.15 U	0.59	0.13 J	0.42	0.15 U	0.33
Tetrachloroethene	ug/m3	5	1.7	0.24 U	0.15 J	0.24 U	**5.5**	0.22 J	0.24 U	0.4	0.34	0.13	0.13 J	0.23 J	0.25	0.23 J	0.36	0.24 U	0.38	0.24 U	0.34	0.24 U	0.6	0.88	1.6
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.65	0.15	0.1 U	0.1 U	0.14	0.13	0.1 U	0.11	0.15	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.21 U	0.1 U	0.1 U	0.1 U	0.1 U
Toluene	ug/m3	500	2.4	0.13	1	3.8	4.7	7.8	1.1	2.8	2.2	1.3	0.72	1.1	1	2.1	1.6	0.59	1.8	0.51	1.8	0.95	2.6	1.2	3.9
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.083 J	0.28 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	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
Trichloroethene	ug/m3	1	0.15 J	0.19 U	0.068 J	0.19 U	0.53	0.14 J	0.19 U	0.28	0.19 U	0.077	0.19 U	0.1 J	0.19 U	0.31	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 J	0.19 U	0.43
Trichlorofluoromethane	ug/m3	500	1.8	0.2	1.5	2.5	1.8	1.9	1.6	1.7	1.4	1.3	1.4	1.2	1.5	1.3	1.7	1.1	1.1	1.4	1.2	1.2	1.2	1.8	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.58	0.27	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	0.6 J	0.46 J	0.48 J	0.58 J	0.46 J	0.49 J	0.54 J	1.1 U	1.1 U
Vinyl acetate	ug/m3	NA	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	2.5 U	2.5 U	2.5 U	2.5 U	1.6 J	2.5 U	1.2 J	2.5 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.087 U	0.09 U	0.09 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D1.
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Western Small Retail Space			
		Location:	IA-7			
		Sample ID:	IA-7-021420	IA-7-09092020	IA-7-030821	IA-7
		Sample Date:	2/14/2020	9/9/2020	3/8/2021	9/8/2021
Analyte	**Units**	**CT IACTIND 2003**				
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.22 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.15 U	0.17
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.14 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA				
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.15 U	0.058 J
1,3-Butadiene	ug/m3	NA	0.078 U	0.077 U	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.18 U	0.21 U
1,4-Dioxane	ug/m3	NA				
2-Butanone	ug/m3	500	0.91 J	1.5 J	2 J	1.5 J
2-Hexanone	ug/m3	NA	0.14 U	0.29 U	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.12 U	0.14 U
Acetone	ug/m3	500	26	16	16	13
Benzene	ug/m3	3.3	0.41	0.11 U	0.63	0.43
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.23 U	0.2 U	0.23 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.31 U	0.36 U
Bromomethane	ug/m3	NA	0.27 U	0.14 U	0.12 U	0.14 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.93 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.43	0.22 U	0.26	0.4
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.14 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.092 U	0.079 U	0.092 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.15 U	0.17 U
Chloromethane	ug/m3	80	1	0.14 U	0.12 U	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.12 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.14 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.1 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	1.4	0.17 U	0.15 U	2.3
Ethanol	ug/m3	NA	190	990	570	150
Ethyl acetate	ug/m3	NA	0.13 U	1.3	3.8	1.3 U
Ethylbenzene	ug/m3	290	0.15 U	0.15 U	0.14	0.18
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.32 U	0.37 U
Hexane	ug/m3	NA	4.9 U	4.9 U	4.2 U	4.9 U
Isopropyl alcohol	ug/m3	NA	8.9	33	18	6.1
m,p-Xylene	ug/m3	NA	0.23 J	0.3 U	0.45	0.47
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.12 U	0.14 U
Methylene chloride	ug/m3	17	0.56 J	1.2 U	5.2	0.57 J
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.11 U	0.13 U
Naphthalene	ug/m3	NA				
n-Heptane	ug/m3	NA	0.14 U	0.14 U	0.12 U	0.23
o-Xylene	ug/m3	NA	0.15 U	0.15 U	0.17	0.2
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.1 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.15 U	0.13 U	0.08 J
Tetrachloroethene	ug/m3	5	1.9	0.24 U	2	0.74
Tetrahydrofuran	ug/m3	NA	0.1 U	1 U	0.88 U	1 U
Toluene	ug/m3	500	0.42	0.13 U	0.75	1.1
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.14 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.16 U	0.13 J
Trichlorofluoromethane	ug/m3	500	1.2	0.78 U	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.41 J	1.1 U	0.92 U	0.63 J
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.1 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.089 U	0.077 U	0.089 U

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2

Summary of All Analytical Results –
Extraction Well Samples for Small Retail Space

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Center Small Retail Space																							
Location:		EW-6																							
Sample ID:		EW-6-020309	EW-6-021109	EW-6-021809	EW-6-022609	EW-6-030609	EW-6-041409	EW-6-051509	EW-6-061109	EW-6-091709	EW-6-122909	EW-6-070110	EW-6-091610	EW-6-120710	EW-6-021711	EW-6-060211	EW-6-091511	EW-6-120811	EW-6-030812	EW-6-061412	EW-6-091312	EW-6-010313	EW-6-031513	EW-6-060713
Sample Date:		2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3																25 U		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130	0.55 U	80	230	33	0.27 U	75	0.55 U	0.55 U	0.55 U	4.3
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 U	0.69 U	6.9 U	14 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	0.55 U	0.55 U	5.5 U	11 U	2.7 U	0.27 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21	0.4 U	12	27	6.4	0.2 U	9.6	0.4 U	0.4 U	0.4 U	0.78
1,1-Dichloroethene	ug/m3	850	210	100	110	55	74	87	83	80	6.4	3.5	4 U	0.4 U	0.4 U	4 U	7.9 U	2 U	0.2 U	0.84	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U	7.4 U	0.74 U	0.74 U	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
1,2,4-Trimethylbenzene	ug/m3	5 U	5 U	5 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.26 J	0.6	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 U	0.77 U	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.4 U	0.4 U	4 U	8.1 U	2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 U	0.46 U	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
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	7 U	7 U	7 U	7 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U											
1,3,5-Trimethylbenzene	ug/m3	5 U	5 U	5 U	7.3	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	1.1 U	2.2 U	0.22 U	0.22 U	2.2 U	4.4 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3																7.2 U							
2-Butanone	ug/m3	120	280	300	130	97	160	37	65	8.7	23	1800	110	20	1.9 B	59 U	240 J	13 J	2.1 J	200	3.7 J	12 J	1.9 J	120
2-Hexanone	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 U	0.41 U	82 U	8.2 U	2 U	0.41 U	0.7	0.52	0.41 U	0.41 U	0.41 U
4-Ethyltoluene	ug/m3	5 U	5 U	5 U	5 U	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.28 J	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 U	0.41 U	4.1 U	8.2 U	2 U	0.41 U	0.35 J	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 B	15 B	48 U	190 J	21 J	9.9	36	25 B	9.5 J	6.3 J	42
Benzene	ug/m3	5.2	5.2	4.1	3.2 U	3.2 U	32 U	1.7	1.6 U	1.6 U	1.6 U	1.6 U	3.2 U	0.92	1.1	3.2 U	6.4 J	1.6 U	0.31 J	1.2	0.77	0.32	0.4	0.32 U
Benzyl chloride	ug/m3	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	0.52 U	0.52 U	5.2 U	10 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	0.67 U	0.67 U	6.7 U	13 U	3.4 U	0.34 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	1 U	1 U	10 U	21 U	5.2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	0.39 U	0.39 U	3.9 U	7.8 U	1.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Carbon disulfide	ug/m3	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	180	1.6 U	1.6 U	1.6 U	1.6 U	8	12	0.66	0.31 U	11	62 J	7.1 J	3.1 U	29	3.1 U	3.1 U	3.1 U	0.35 J
Carbon tetrachloride	ug/m3	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	0.63 U	0.63 U	6.3 U	13 U	3.1 U	0.39	0.34 J	0.4 J	0.63 U	0.23 J	0.63 U
Chlorobenzene	ug/m3	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 U	0.46 U	4.6 U	9.2 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	140	50	34	18	13	26 U	13	14	11	4	1.3 U	2.8	0.26 U	0.26 U	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
Chloroform	ug/m3	42	24	19	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4	0.49 U	4.9 U	9.8 U	1 J	0.36	0.92	0.21 J	0.49 U	0.49 U	0.49 U
Chloromethane	ug/m3	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	38	40	0.21 U	1	16	45	2.9	1.5	7.8	1.3	0.21	1.2	1.3
cis-1,2-Dichloroethene	ug/m3	700	360	220	250	150	120	190	170	130	36	11	7.9	2.3	0.4 U	4 U	7.9 J	0.83 J	0.2 U	2.8	0.4 U	0.4 U	0.4 U	0.4 U
cis-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 U	0.45 U	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
Cyclohexane	ug/m3	3.4 U	5.3	3.4 U	3.4 U	3.4 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	0.34 U	0.34 U	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
Dibromochloromethane	ug/m3	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.85 U	0.85 U	8.5 U	17 U	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	5 U	5 U	5 U	5 U	5 U	50 U	3.6	3.9	2.7	2.5 U	2.5 U	5 U	2.3	3.6	4.9 U	9.9 U	3	2.2	2.9	2.9	0.49	2.5	2.3
Ethanol	ug/m3	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6	11	38 U	150 J	38 U	29	5.8 J	68	7.5	3.5 J	13
Ethyl acetate	ug/m3	7.3 U	3.6 U	3.6 U	7.3 U	3.6 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	0.36 U	0.36 U	3.6 U	7.2 U	1.8 U	0.52	1.2	24	0.36 U	0.36 U	0.94
Ethylbenzene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.43 U	0.43 U	4.3 U	8.7 J	2.2 U	0.43 U	0.18 J	0.66	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	ug/m3	22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	5.3 U	11 U	1.1 U	1.1 U	11 U	21 U	5.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	7.1 U	0.7 U	1.3	3.5 U	280 U	70 U	1.4 J	1.2 J	7.6 J	14 U	0.6 J	1.6 J
Isopropyl alcohol	ug/m3	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 U	2.9	25 U	200 J	49 U	1.3 J	9.8 U	7.6 J	9.8 J	9.8 U	9.8 U
m,p-Xylene	ug/m3	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	120	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.87 U	0.94	8.7 U	17 J	4.3 U	0.87 U	0.24 J	1.9	0.87 U	0.87 U	0.87 U
Methyl methacrylate	ug/m3														0.41 U	4.1 U	8.2 U	2 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Methylene chloride	ug/m3	7 U	7 U	7.5	7 U	7 U	780	12	15	7 U	27	10	7 U	1.3	2.8	6.9 U	69 U	3.6 J	4.8	2.5 J	14 B	3.5 J	1.4 J	3.8
Methyl-t-butyl ether	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	0.36 U	0.36 U	3.6 U	7.2 U	1.8 U	0.36 U	0.36 U	0.13 J	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3																							
n-Heptane	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 U	0.41 U	4.1 U	8.2 U	2 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.43 U	0.43 U	4.3 U	8.7 J	2.2 U	0.43 U	0.16 J	0.73	0.43 U	0.43 U	0.43 U
Propylene (Propene)	ug/m3	3.5 U	1.8 U	1.8 U	3.5 U	1.8 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	8.7 U	6.9 U	0.69 U	1.7 U	17 U	140 U	3.8 J	6.9 U	2.8 J	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	42 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	0.43 U	0.43 U	4.3 U	8.5 U	2.1 U	0.43 U	0.2 J	0.35 J	0.43 U	0.43 U	0.43 U
Tetrachloroethene	ug/m3	330	290	130	290	190	300	190	210	250	68	34	23	8.1	1.2	6.8 U	17	2.4 J	0.76	4.6	0.88	0.68 U	0.68 U	0.68 U
Tetrahydrofuran	ug/m3	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480	0.29 U	13000	32000	3900	3.7	8100	0.29 U	0.29 U	0.27 J	58
Toluene	ug/m3	12	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	0.38 U	2.4	3.8 U	9.8	1.9 U	0.36 J	0.7	5.3	0.38	0.31 J	0.5
trans-1,2-Dichloroethene	ug/m3	12	6.3	4.2	6.4	4 U	40 U	2.6	2.7	2	2.1	2 U	4 U	0.4 U	0.4 U	4 U	7.9 U	2 U	0.2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
trans-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 U	0.45 U	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
Trichloroethene	ug/m3	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250	0.54 U	190	390	66	0.27 U	180	0.21 J	0.54 U	0.54 U	5.7
Trichlorofluoromethane	ug/m3	2300	870	630	350	250	150	230	440	700	320	6.7	25	28	1.7	11	34	11	1	15	2	0.56	1.3	4.7
Trichlorotrifluoroethane	ug/m3	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 U	0.86	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.6 J	0.77 U	0.63 J	0.77 U
Vinyl acetate	ug/m3	15 U	3.6 U	3.6 U	15 U	3.6 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	1.8 U	7.1 U	0.7 U	0.35 U	70 U	7 U	1.8 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	7 U
Vinyl chloride	ug/m3	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	26 U	1.3 U	1.3 U	1.3 U	1.3 U	1.7	2.9	0.26 U	0.26 U	2.6 U	5.1 J	1.3 U	0.13 U	1.5	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Center Small Retail Space																						Extraction Well
Location:		EW-6																						EW-5
Sample ID:		EW-6-090613	EW-6-121313	EW-6-030714	EW-6-061314	EW-6-091214	EW-6-121914	EW-06-032715	EW-6-061115	EW-6-091615	EW-6-121815	EW-6-021816	EW-6-080516	EW-6-021017	EW-6-090717	EW-6-022818	EW-6-091218	EW-6-020819	EW-6-090619	EW-6-021420	EW-6-09092020	EW-6-030821	EW-6	EW-5-020309
Sample Date:		9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	2/3/2009
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3	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		2.5 U		1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
1,1,1-Trichloroethane	ug/m3	71	18	13	26	58	19	14	13	5.9	27	10	180	4	3.9	2.6	27	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	190000
1,1,2,2-Tetrachloroethane	ug/m3	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	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	6.8 U
1,1,2-Trichloroethane	ug/m3	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	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	1.1 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	5.4 U
1,1-Dichloroethane	ug/m3	13	2.7	2.2	4.7	8.2	3.5	2.8	2.5	1.1	3.1	1.7	24	0.88	0.58 J	0.45 J	4.1	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	11000
1,1-Dichloroethene	ug/m3	1.1	0.4 U	0.4 U	0.4 U	0.52	0.4 U	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U	1.1	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2500
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	7.4 U
1,2,4-Trimethylbenzene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
1,2-Dibromoethane (EDB)	ug/m3	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	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	7.6 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,2-Dichloroethane	ug/m3	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U
1,2-Dichloropropane	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U
1,2-Dichlorotetrafluoroethane	ug/m3										1.4 U		7 U											7 U
1,3,5-Trimethylbenzene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
1,3-Butadiene	ug/m3	0.078 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	1.5 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,4-Dioxane	ug/m3										7.2 U		36 U											
2-Butanone	ug/m3	95	4 J	4 J	6.8 J	11 J	5.2 J	11 J	13	7 J	2.2 J	6.1 J	79 J	3.1 J	120	57	160	6.4 J	17	6.1 J	10 J	6.3 J	4.2 J	6.3
2-Hexanone	ug/m3	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	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4 U
4-Ethyltoluene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
4-Methyl-2-pentanone	ug/m3	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	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4 U
Acetone	ug/m3	35	17	16	27	36	35	39	35	44	17 J	33	210	25	26	17 J	42	33	38	26	63	32	35	530
Benzene	ug/m3	1.2	0.42	0.96	0.73	1.1	0.7	0.65	0.56	0.56 J	0.64 U	0.64 U	9.6	1.3	0.46 J	0.58 J	0.91	2.5	1.2	0.69	1.9	1.6	1.4	13
Benzyl chloride	ug/m3	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	1 U	1 U	5.2 U	0.52 U	1 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U
Bromodichloromethane	ug/m3	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	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	1.3 U	0.62 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	6.6 U
Bromoform	ug/m3	0.36 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	2.1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	11 U
Bromomethane	ug/m3	0.14	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.39 U	0.78 U	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	0.78 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	3.8 U
Carbon disulfide	ug/m3	74	5.6	6.3	31	71	8	15	14	19	6.2 U	6 J	420	3.6	2.3 J	2 J	160	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.2 U
Carbon tetrachloride	ug/m3	0.48	0.63 U	0.63 U	0.63 U	0.63 U	0.35 J	0.3 J	0.36 J	0.4 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	1.3 U	0.45 J	2	0.36 J	0.63 U	0.4 J	0.63 U	0.43 J	6.2 U
Chlorobenzene	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U
Chloroethane	ug/m3	1.7	0.26 U	0.26 U	0.67	1.1	0.26 U	0.26 U	0.26 U	0.53 U	0.53 U	0.53 U	2.6 U	0.26 U	1.1 U	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	260
Chloroform	ug/m3	1.7	0.49 U	0.49 U	0.64	1	0.63	0.37 J	0.45 J	0.39 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.74 J	3.3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	83
Chloromethane	ug/m3	35	3.4	1.8	3.3	4.4	1.4	2.4	3.6	3.3	1.2	1.4	38	1.4	3.5	1.2	0.83 U	0.41 U	1.1	0.41 U	0.41 U	0.41 U	1.4	2 U
cis-1,2-Dichloroethene	ug/m3		0.4 U	0.4 U	0.71	1.1	0.21 J	0.29 J	0.25 J	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.4 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2900
cis-1,3-Dichloropropene	ug/m3	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U
Cyclohexane	ug/m3	0.12 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	3.4 U
Dibromochloromethane	ug/m3	0.3 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	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	8.6 U
Dichlorodifluoromethane	ug/m3	1.3	2.6	2.3	2	2.3	2.6	1.8	2.7	2.7	3.1	2.5	5.5	1.4	2.2	2.2	0.99 U	0.49 U	2.2	1.7	2	0.49 U	2.4	5 U
Ethanol	ug/m3	14	4.3 J	7.5 U	6.9 J	15 U	3.5 J	5.6 J	27	28	7.2 J	15 U	75 U	24	15	21	9.5 J	39	44	8.8	350	8.2	170	320
Ethyl acetate	ug/m3	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	0.72 U	0.72 U	9.4	140	5.9	0.72 U	1.4 U	59	0.36 U	0.36 U	9.1	3.6 U	3.6 U	7.3 U
Ethylbenzene	ug/m3	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	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.4	0.43 U	0.43 U	0.25 J	0.43 U	0.22 J	4.4 U
Hexachlorobutadiene	ug/m3	0.37 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	22 U
Hexane	ug/m3	0.89 J	14 U	14 U	14 U	28 U	14 U	7.3 J	14 U	28 U	28 U	28 U	16 J	5.3 J	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	5
Isopropyl alcohol	ug/m3	3.4 U	9.8 U	9.8 U	1.1 J	5.9 J	9.8 U	1.8 J	5 J	4.4 J	20 U	20 U	11 J	4.5 J	3.3 J	5.9 J	20 U	9.1 J	0.83 J	9.8 U	9.8 U	9.8 U	3 J	190
m,p-Xylene	ug/m3	0.76	0.87 U	0.87 U	0.52 J	1.7 U	0.87 U	0.35 J	0.3 J	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 U	1.7 U	2.9	0.76 J	0.87 U	0.54 J	0.87 U	0.56 J	8.6 U
Methyl methacrylate	ug/m3	0.14 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		0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U		0.41 U	
Methylene chloride	ug/m3	0.84 J	0.99 J	0.89 J	1.2 J	1.6 J	3.5 U	0.43 J	3.5 U	6.9 U	6.9 U	6.9 U	24 J	4.4	1.2 J	6.9 U	6.9 U	1.8 J	0.68 J	0.69 J	1.6 J	3.5 U	1 J	7.8
Methyl-t-butyl ether	ug/m3	0.13 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U
Naphthalene	ug/m3										1 U		8.9									0.52 U		
n-Heptane	ug/m3	0.45	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4 U
o-Xylene	ug/m3	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	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.4	0.43 U	0.43 U	0.25 J	0.43 U	0.24 J	4.4 U
Propylene (Propene)	ug/m3	2.4 U	6.9 U	6.9 U	1 J	2.1 J	0.84 J	0.91 J	6.9 U	14 U	14 U	14 U	11 J	1.3 J	14 U	14 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	3.5 U
Styrene	ug/m3	0.28	0.43 U	0.43 U	0.43 U	0.85 U	0.43 U	0.43 U	0.094 J	0.85 U	0.85 U	0.85 U	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.43 U	0.43 U	0.43 U	0.21 J	0.43 U	0.15 J	4.2 U
Tetrachloroethene	ug/m3	8.3	1.5	1.1	3.3	5.9	3.1	1.4	1.1	1.4 U	1.7	1.4 U	26	0.68 U	1.4 U	1.4 U	4.6	2.1	0.73	0.73	0.79	0.68 U	0.27 J	210
Tetrahydrofuran	ug/m3	35000	650	54	1200	4100	260	680	600	170	1.7	140	3600	21	65	27	4400	0.29 U	6.1	4	3.6	2.9 U	1.5 J	16
Toluene	ug/m3	2.5	0.38 U	1	0.97	0.68 J	0.25 J	0.49	0.66	0.92	0.75 U	0.75 U	7.4	4.1	1.7	1.1	2.5	4.8	2.1	0.38	1.4	0.57	1.9	13
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U	1.1 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	26
trans-1,3-Dichloropropene	ug/m3	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U
Trichloroethene	ug/m3	150	36	28	60	110	44	33	25	2.4	47	25	350	3.3	6.4	5.1	64	0.54 U	0.37 J	3.8	0.54 U	0.54 U	0.54 U	51000
Trichlorofluoromethane	ug/m3	6.2	12	6.9	14	21	15	8.6	12	4.4 J	20	7.3	66	7.4	4.6	3.5 J	3.8 J	3.1	1.3 J	1.2 J	1.1 J	1.1 J	1.3 J	3500
Trichlorotrifluoroethane	ug/m3	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	6.1 U	6.1 U	31 U	3.1 U	6.1 U	6.1 U	6.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.64 J	7.6 U
Vinyl acetate	ug/m3	2.5 U	7 U	7 U	7 U	2.1 J	7 U	7 U	7 U	14 U	0.79 J	14 U	8.6 J	7 U	14 U	0.77 J	14 U	7 U	7 U	7 U	7 U	7 U	7 U	15 U
Vinyl chloride	ug/m3	2.2	0.26 U	0.26 U	0.65	1.3	0.26 U	0.26 U	0.26 U	0.37 J	0.51 U	0.51 U	4.8	0.26 U	0.51 U	0.51 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	2.6 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Eastern Small Retail Space																						
Location:		EW-5																						
Sample ID:		EW-5-021109	EW-5-021809	EW-5-022609	EW-5-030609	EW-5-041409	EW-5-051509	EW-5-061109	EW-5-091709	EW-5-122909	EW-5-032610	EW-5-070110	EW-5-091610	EW-5-120710	EW-5-021711	EW-5-060211	EW-5-091511	EW-5-120811	EW-5-030812	EW-5-061412	EW-5-091312	EW-5-010313	EW-5-031513	EW-5-060713
Sample Date:		2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3																25 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	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
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 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
1,1,2-Trichloroethane	ug/m3	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 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
1,1-Dichloroethane	ug/m3	1900	890	770	190	360	450	430	230	100	50	53	42	29	34	33	44	16	11	12	21	0.4 U	0.4 U	6.4
1,1-Dichloroethene	ug/m3	290	130	190	61	160	160	160	98	30	18	21	15	13	15	11	14	5	4.5	4.5	6.9	0.4 U	0.4 U	1.7
1,2,4-Trichlorobenzene	ug/m3	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	0.74 U
1,2,4-Trimethylbenzene	ug/m3	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.2 J	0.63	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 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
1,2-Dichlorobenzene	ug/m3	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 U	0.81 U	4 U	8.1 U	2 U	2 U	0.17 J	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 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
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U											
1,3,5-Trimethylbenzene	ug/m3	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.19 J	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 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
1,3-Dichlorobenzene	ug/m3	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3																7.2 U							
2-Butanone	ug/m3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000	13000	2700	1800	870	840	12 J	1.7 J	1900
2-Hexanone	ug/m3	4 U	4 U	4 U	1 U	40 U	2.7	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	82 U	8.2 U	2 U	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U
4-Ethyltoluene	ug/m3	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.18 J	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.27 J	0.34 J	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B	3400	710	400	440	670 B	9.5	8.5 J	610
Benzene	ug/m3	12	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2	5	4.2	4.5	4.2	6.4 J	2.8	2 J	1.1	3.7	0.32	0.47	1
Benzyl chloride	ug/m3	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	5.2 U	1 U	1 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
Bromodichloromethane	ug/m3	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 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
Bromoform	ug/m3	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 U	2.1 U	10 U	21 U	5.2 U	10 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.78 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
Carbon disulfide	ug/m3	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12	14	8	15	22	62 J	13 J	11 J	25	49	3.1 U	3.1 U	19
Carbon tetrachloride	ug/m3	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	6.2 U	1.3 U	1.3 U	6.3 U	13 U	1.2 J	3.1 U	0.4 J	0.38 J	0.63 U	0.39 J	0.63 U
Chlorobenzene	ug/m3	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 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
Chloroethane	ug/m3	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	ug/m3	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 J	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59
Chloromethane	ug/m3	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 U	0.41 U	2.1 U	4.1 U	1 U	2.1 U	0.21 U	0.21 U	0.21	1.1	0.41 U
cis-1,2-Dichloroethene	ug/m3	710	400	410	100	150	270	250	170	58	32	43	31	17	27	27	35	11	6.9	8.6	14	0.4 U	0.4 U	4.3
cis-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 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
Cyclohexane	ug/m3	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	3.4 U	0.69 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
Dibromochloromethane	ug/m3	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 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
Dichlorodifluoromethane	ug/m3	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4	3.7	4.9 U	9.9 U	2.8	4.9 U	2.9	2.6	0.49	2.5	2.1
Ethanol	ug/m3	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23	19	24 J	150 J	12 J	290	14	100	7.5	3.5 J	13
Ethyl acetate	ug/m3	3.6 U	3.6 U	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	6.8	3.4	0.72 U	3.8	7.2 U	3.6	26	4.2	30	0.36 U	1.2	2.6
Ethylbenzene	ug/m3	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.12 J	0.69	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	ug/m3	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 J	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	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	0.7 U	3.5 U	280 U	70 U	9.4 J	4.3 J	2 J	14 J	2.2 J	14 U
Isopropyl alcohol	ug/m3	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11	13	25 U	200 J	49 U	13 J	9.8 U	11	9.8 J	9.8 U	9.8 U
m,p-Xylene	ug/m3	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.7 U	17 U	4.3 U	5.4 J	0.87 U	1.9	0.87 J	0.87 U	0.87 U
Methyl methacrylate	ug/m3														0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Methylene chloride	ug/m3	7 U	9.6	7 U	12	720	21	15	7 U	25	14 U	8.6	7 U	1.4 U	2	6.9 U	69 U	4.2 J	15 J	11	2.5 JB	3.5 J	6.9	1.1 J
Methyl-t-butyl ether	ug/m3	3.6 U	3.6 U	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 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
Naphthalene	ug/m3																							
n-Heptane	ug/m3	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	0.52	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.14 J	0.73	0.43 U	0.43 U	0.43 U
Propylene (Propene)	ug/m3	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 U	3.4 U	17 U	140 U	4.1 J	15 J	6.9 U	3.9 J	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	17	4.2 U	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 U	0.85 U	4.3 U	8.5 U	2.1 U	4.3 U	0.46	0.38 J	0.43 U	0.43 U	0.43 U
Tetrachloroethene	ug/m3	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 J	3.5	3.4 U	0.92	2.1	0.68 U	0.68 U	0.71
Tetrahydrofuran	ug/m3	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	ug/m3	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 J	37	0.58	5.6	0.38	0.4	0.43
trans-1,2-Dichloroethene	ug/m3	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	2 U	4 U	2 U	4 U	0.79 U	0.79 U	4 U	7.9 U	2 U	2 U	0.4 U	0.18 J	0.4 U	0.4 U	0.4 U
trans-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 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	ug/m3	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	ug/m3	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 J	3.4	5.6 U	4.9	8.5	0.56	1.4	2.9
Trichlorotrifluoroethane	ug/m3	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.57 J	0.77 U	0.61 J	0.77 U
Vinyl acetate	ug/m3	3.6 U	3.6 U	15 U	0.9 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	7.1 U	1.8 U	7.1 U	1.4 U	0.7 U	70 U	7 U	1.8 U	7 U	0.7 U	0.7 U	0.7 U	0.7 U	7 U
Vinyl chloride	ug/m3	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

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Eastern Small Retail Space																						Extraction Well
Location:		EW-5																						EW-7
Sample ID:		EW-5-090613	EW-5-121313	EW-5-030714	EW-5-061314	EW-5-091214	EW-5-121914	EW-05-032715	EW-5-061115	EW-5-091615	EW-5-121815	EW-5-021816	EW-5-080516	EW-5-021017	EW-5-090717	EW-5-022818	EW-5-091218	EW-5-020819	EW-5-090619	EW-5-021420	EW-5-09092020	EW-5-030821	EW-5	EW-7-020309
Sample Date:		9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	2/3/2009
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3	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		2.5 U		1.2 U	2.5 U	12 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
1,1,1-Trichloroethane	ug/m3	180	40	68	54	74	25	14	0.19 J	55	32	15	68	7.4	42	17	49	11	40	11	73	11	0.55 U	5600
1,1,2,2-Tetrachloroethane	ug/m3	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	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	6.9 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	6.8 U
1,1,2-Trichloroethane	ug/m3	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	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	5.5 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	5.4 U
1,1-Dichloroethane	ug/m3	20	4.8	7	7.4	9.3	4.2	2.9	0.4 U	6.9	4.4	2.8	7.5	1.8	6.2	2.3 J	5.9	0.4 U	4.9	1.7	0.4 U	1.6	0.4 U	1700
1,1-Dichloroethene	ug/m3	4.7	1.5	1.8	2	2.4	1	0.9	0.4 U	1.5 J	1.1	0.84	4 U	0.4	1.3	4 U	1.3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	14
1,2,4-Trichlorobenzene	ug/m3	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	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	7.4 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	7.4 U
1,2,4-Trimethylbenzene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 U	0.98 U	1.4	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
1,2-Dibromoethane (EDB)	ug/m3	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	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	7.7 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	7.6 U
1,2-Dichlorobenzene	ug/m3	0.28 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,2-Dichloroethane	ug/m3	0.19 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	4 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U
1,2-Dichloropropane	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	4.6 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U
1,2-Dichlorotetrafluoroethane	ug/m3										1.4 U		7 U											7 U
1,3,5-Trimethylbenzene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
1,3-Butadiene	ug/m3	0.1 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	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	2.2 U	0.42 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U
1,3-Dichlorobenzene	ug/m3	0.28 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,4-Dichlorobenzene	ug/m3	0.28 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U
1,4-Dioxane	ug/m3										7.2 U		36 U											
2-Butanone	ug/m3	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800	29	4500	750	5500	110	7300	160	12 U	130	3.5 J	8.7
2-Hexanone	ug/m3	0.49	0.41 U	0.53	0.41 U	0.82 U	0.41 U	0.16 J	0.34 J	2 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4 U
4-Ethyltoluene	ug/m3	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	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U
4-Methyl-2-pentanone	ug/m3	0.56	0.41 U	0.41 U	0.46	0.82 U	0.41 U	0.41 U	0.41 U	2 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4 U
Acetone	ug/m3	6800	210	380	610	500	98	49	21	550	120	58	570	11	700	320	710	47	1700	66	15	640	16	580
Benzene	ug/m3	7.1	2.4	3.8	3	2.7	3.4	3.1	0.35	2.9	5	2.8	4	0.38	2.7	2 J	3.1	3.6	2.5	1.6	0.32 U	3	0.46	3.2 U
Benzyl chloride	ug/m3	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	1 U	1 U	5.2 U	0.52 U	1 U	5.2 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U
Bromodichloromethane	ug/m3	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	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	6.7 U	1.2 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	6.6 U
Bromoform	ug/m3	0.48 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	5.2 U	2.1 U	2.1 U	10 U	1 U	2.1 U	10 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	11 U
Bromomethane	ug/m3	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	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	3.9 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	3.8 U
Carbon disulfide	ug/m3	77	8.9	26	35	46	13	7.4	0.98 J	56	19	6.1 J	100	1.2 J	120	62	200	66 J	210	44	3.1 U	3.1 U	3.1 U	5.7
Carbon tetrachloride	ug/m3	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	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	6.3 U	0.45 J	0.63 U	6	0.63 U	0.47 J	0.63 U	0.43 J	6.2 U
Chlorobenzene	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	4.6 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U
Chloroethane	ug/m3	4	0.86	1.9	1.9	1.6	0.95	0.26 U	0.26 U	1.3 U	0.53 U	0.53 U	2.6 U	0.26 U	1.3	2.6 U	1.2	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	170
Chloroform	ug/m3	1.6	0.49 U	0.59	0.76	0.82	0.53	0.18 J	0.17 J	0.63 J	0.98 U	0.98 U	4.9 U	0.49 U	1	4.9 U	0.84 J	15	0.49 U	0.49 U	0.93	0.3 J	0.17 J	4.8 U
Chloromethane	ug/m3	0.19 U	0.41 U	0.41 U	0.41 U	61	0.41 U	0.41 U	0.41 U	2.1 U	83	0.83 U	4.1 U	0.41 U	76	4.1 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.4	2 U
cis-1,2-Dichloroethene	ug/m3	13	1.9	4.1	4.3	5	1.4	0.78	0.4 U	4	1.3	0.79 U	4 U	0.4 U	2.8	4 U	2.3	1.8	2.1	0.52	0.73	0.52	0.4 U	1100
cis-1,3-Dichloropropene	ug/m3	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	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	4.5 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U
Cyclohexane	ug/m3	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	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	3.4 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	3.4 U
Dibromochloromethane	ug/m3	0.4 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	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	8.5 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	8.6 U
Dichlorodifluoromethane	ug/m3	1.7	2.5	2.1	2	2.3	2.5	2	3.3	2.2 J	3.1	2.4	4.9 U	1.5	2.2	4.9 U	2.1	0.49 U	0.49 U	1.8	0.49 U	0.49 U	2.5	5 U
Ethanol	ug/m3	3.5 U	39	43	32	15	33	31	15	17 J	21	28	75 U	6.7 J	13 J	35 J	11 J	36	18	30	71	47	94	350
Ethyl acetate	ug/m3	0.17 U	5.5	4.8	3.4	3.6	3.6	2.6	0.36 U	1.8 U	2.8	0.72 U	3.6 U	2.5	5.2	3.6 U	2.6	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U	7.3 U
Ethylbenzene	ug/m3	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	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	4.3 U	0.87 U	1.2	0.43 U	0.43 U	0.16 J	16	0.17 J	4.4 U
Hexachlorobutadiene	ug/m3	0.5 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	5.3 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	11 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	22 U
Hexane	ug/m3	6.6 U	14 U	14 U	14 U	28 U	14 U	7.4 J	1.4 J	70 U	28 U	28 U	140 U	1.4 J	28 U	140 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	10
Isopropyl alcohol	ug/m3	4.6 U	2.9 J	6 J	11	8.4 J	2 J	9.8 J	9.8 U	49 U	3 J	20 U	14 J	2 J	20 U	5.1 J	6.2 J	9.8 U	8.7 J	9.8 U	9.8 U	9.8 U	2.7 J	210
m,p-Xylene	ug/m3	1.2	0.87 U	0.56 J	0.81 J	1.7 U	0.24 J	0.39 J	0.54 J	4.3 U	1.3 J	1.7 U	8.7 U	0.87 U	1.7 U	8.7 U	1.7 U	2.6	0.87 U	0.87 U	0.51 J	67	0.59 J	8.6 U
Methyl methacrylate	ug/m3	0.19 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U		2 U		0.82 U		0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U		0.41 U	
Methylene chloride	ug/m3	3.4	1.1 J	0.79 J	0.99 J	1.6 J	3.5 U	0.44 J	1.9 J	17 U	6.9 U	6.9 U	35 U	1.3 J	6.9 U	35 U	6.9 U	2.6 J	3.5 U	0.5 J	3.5 U	1.8 J	0.9 J	9.3
Methyl-t-butyl ether	ug/m3	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	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	3.6 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U
Naphthalene	ug/m3										1 U		5.2 U									3.4		
n-Heptane	ug/m3	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	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4 U
o-Xylene	ug/m3	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	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	4.3 U	0.87 U	1.3	0.43 U	0.43 U	0.2 J	18	0.24 J	4.4 U
Propylene (Propene)	ug/m3	2.3 J	6.9 U	6.9 U	6.9 U	14 U	6.9 U	6.9 U	6.9 U	34 U	14 U	14 U	69 U	6.9 U	14 U	4.3 J	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	3.5 U
Styrene	ug/m3	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	0.85 U	0.85 U	4.3 U	0.43 U	0.85 U	4.3 U	0.85 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.14 J	4.2 U
Tetrachloroethene	ug/m3	1.7	0.68 U	0.69	1.2	1.2	0.46 J	0.68 U	0.24 J	5.6	1.4 U	1.4 U	6.8 U	0.68 U	1.4 U	6.8 U	1.4 U	9.6	1.3	0.68 U	6.8	0.38 J	0.56 J	66
Tetrahydrofuran	ug/m3	26000	1000	2900	2600	3300	460	320	1.9	2900 E	1100	250	4900	13	5300	1800	4200	240	4900	880	2.9 U	820	2.9 U	41
Toluene	ug/m3	4.2	0.44	1.4	1.7	1.1	0.36 J	0.55	0.83	0.72 J	0.95	0.86	3.8 U	0.43	0.83	3.8 U	1.5	2.1	1.9	0.45	0.74	1.9	1.4	14
trans-1,2-Dichloroethene	ug/m3	0.19 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	4 U	0.79 U	1.2 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	150
trans-1,3-Dichloropropene	ug/m3	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	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	4.5 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U
Trichloroethene	ug/m3	770	80	190	160	200	66	38	0.54 U	160	94	37	210	16	150	44	140	18	130	30	54	40	0.54 U	230
Trichlorofluoromethane	ug/m3	4.6	3.6	2.7	3.4	4.1	3.1	1.9 J	1.7 J	3.1 J	4.1 J	2 J	22 U	2.2	2.8 J	22 U	3.2 J	3.9	3.1	1.8 J	2.2 U	2 J	1.3 J	1800
Trichlorotrifluoroethane	ug/m3	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	6.1 U	6.1 U	31 U	3.1 U	6.1 U	31 U	6.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.69 J	7.6 U
Vinyl acetate	ug/m3	3.3 U	7 U	7 U	7 U	14 U	7 U	7 U	7 U	35 U	14 U	14 U	70 U	7 U	14 U	70 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	15 U
Vinyl chloride	ug/m3	3.5	0.26 U	1.1	1.3	0.26 U	0.28	0.15 J	0.26 U	0.87 J	0.51 U	0.51 U	2.6 U	0.26 U	1.2	2.6 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	280

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Western Small Retail Space																						
Location:		EW-7																						
Sample ID:		EW-7-021109	EW-7-021809	EW-7-022609	EW-7-030609	EW-7-041409	EW-7-051509	EW-7-061109	EW-7-091709	EW-7-122909	EW-7-032610	EW-7-070110	EW-7-091610	EW-7-120710	EW-7-021711	EW-7-060211	EW-7-091511	EW-7-120811	EW-7-030812	EW-7-061412	EW-7-091312	EW-7-010313	EW-7-031513	EW-7-060713
Sample Date:		2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3																2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250	290	160	110	5.5 U	110	66	11	47	95	0.55 U	3.1	15
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.7 U	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	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	0.69 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.4 U	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.54 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	0.55 U
1,1-Dichloroethane	ug/m3	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220	150	45	150	80	6.4	42	100	0.4 U	2	7
1,1-Dichloroethene	ug/m3	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63	0.4 U	4 U	0.79 J	0.13 J	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	3 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 J	0.32 J	4.9 U	0.32 J	0.97	0.49	0.3 J	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.77 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	0.77 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	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	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.8 U	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U	0.7 U											
1,3,5-Trimethylbenzene	ug/m3	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 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
1,3-Butadiene	ug/m3	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U	0.22 U	0.22 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	0.22 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3																0.72 U							
2-Butanone	ug/m3	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1	5.3 B	59 U	24 J	6.2 J	100 J	14	3.6 J	12	210	99
2-Hexanone	ug/m3	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 U	0.41 U	82 U	0.82 J	0.14 J	4.1 U	0.28 J	0.64	0.41 U	0.39 J	0.41 U
4-Ethyltoluene	ug/m3	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U	4.9 U	0.49 U	0.21 J	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	0.82 U	0.13 J	4.1 U	1.6	0.31 J	0.41	0.41 U	0.41 U
Acetone	ug/m3	38	58	30	24	15	24	24	7.9	49	26	25	12	42 B	35 B	48 U	23	12	46 J	31	17 B	9.5	55	28
Benzene	ug/m3	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.4	1.6	3.2 U	2.5	1.6	3.2 U	1.5	1.2	0.32	0.54	0.61
Benzyl chloride	ug/m3	1.1 U	1.3 U	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U	1 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	1.4 U	1.7 U	1.7 U	1.7 U	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U	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
Bromoform	ug/m3	2.1 U	2.6 U	2.6 U	2.6 U	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U	10 U	2.1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.76 U	0.95 U	0.95 U	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U	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	0.39 U
Carbon disulfide	ug/m3	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78	0.31 U	3.1 U	6.2 J	3.1 U	31 U	0.41 J	3.1 U	3.1 U	0.57 J	7.4
Carbon tetrachloride	ug/m3	1.3 U	1.6 U	1.6 U	1.6 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U	0.62 U	0.63 U	0.63 U	6.3 U	1.3 U	0.34 J	3.1 U	0.3 J	0.33 J	0.63	0.47 J	0.63 U
Chlorobenzene	ug/m3	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	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	0.46 U
Chloroethane	ug/m3	150	88	41	33	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
Chloroform	ug/m3	1	1.2 U	1.3	1.2 U	4.8 U	2.7	2.6	4.6	2.7	1.1	4.2	4.4	3.9	3	4.9 U	5	3.8	2.4 U	3.1	4.1	0.49 U	0.36 J	2
Chloromethane	ug/m3	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 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	0.41 U
cis-1,2-Dichloroethene	ug/m3	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350	250	65	210	99	5.1	53	120	0.4 U	1.4	5.1
cis-1,3-Dichloropropene	ug/m3	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	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
Cyclohexane	ug/m3	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.41	0.34 U	0.34 U	3.4 U	0.69 J	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U	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	0.85 U
Dichlorodifluoromethane	ug/m3	2.5	3.2	770	2.6	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	1.5	2.1	0.49 U	4.9 U	2.7	2.6	4.9 U	3	0.49 U	0.49	2.5	2
Ethanol	ug/m3	26	29	17	15	3.8 U	19	18	12	18	37	31	1.9 U	1.9 U	18	38 U	22	23	160	31	140	75	27	22
Ethyl acetate	ug/m3	0.72 U	0.9 U	1.9 U	0.9 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	0.72 U	0.36 U	11	0.63	0.36 U	0.36 U	3	3.6
Ethylbenzene	ug/m3	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U	0.44 U	0.43 U	0.43 U	4.3 U	0.87 J	0.26 J	4.3 U	0.21 J	0.47	0.43	0.13 J	0.43 U
Hexachlorobutadiene	ug/m3	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	11 U	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	10	7.6	5.5	3.1	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97	0.71 U	0.87	0.35 U	3.5 U	28 U	14 U	4 J	0.55 J	14 U	14 J	3.5 J	0.78 J
Isopropyl alcohol	ug/m3	18	21	12	8.5	5 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	9.8	9.8 U	9.8 U
m,p-Xylene	ug/m3	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	1.4	0.93	1	0.87 U	0.87 U	8.7 U	1.7 J	0.82 J	8.7 U	0.45 J	1.3	0.87	0.33 J	0.5 J
Methyl methacrylate	ug/m3														0.41 U	4.1 U	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Methylene chloride	ug/m3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9	2.4	6.9 U	6.9 J	1.5 J	33 J	2.1 J	5.4 B	3.5	10	1.5 J
Methyl-t-butyl ether	ug/m3	3.5	2.9	4.9	3.1	3.6 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	0.72 J	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3																							
n-Heptane	ug/m3	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	0.82 J	0.22 J	4.1 U	0.49	0.75	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.65	0.44 U	0.44 U	0.43 U	0.43 U	4.3 U	0.87 J	0.38 J	4.3 U	0.18 J	0.52	0.43	0.15 J	0.43 U
Propylene (Propene)	ug/m3	160	110	0.87 U	0.45 U	3.5 U	0.9 U	0.9 U	3.5 U	3.5 U	0.69 U	1.8 U	0.69 U	0.69 U	1.7 U	17 U	14 U	6.9 U	13 J	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.84 U	1.1 U	1.1 U	1.1 U	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	0.42 U	0.67	0.47	0.43 U	0.43 U	4.3 U	0.85 J	0.49	4.3 U	0.66	0.41 J	0.43 U	0.14 J	0.43 U
Tetrachloroethene	ug/m3	69	56	84	69	40	140	230	410	130	74	510	610	190	110	120	450	170	5.6	130	200	0.68	3	100
Tetrahydrofuran	ug/m3	23	12	14	7.5	3 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	0.29	120	2000
Toluene	ug/m3	2.9	3.6	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4	4.8	2.2	0.47	0.88	3.8 U	1.9	1.1	8.1	1.1	1.9	0.38	0.63	1.1
trans-1,2-Dichloroethene	ug/m3	140	90	90	80	48	120	140	150	84	22	120	110	78	58	4 U	82	54	3.8	37	45	0.4 U	2.1	7.1
trans-1,3-Dichloropropene	ug/m3	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	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
Trichloroethene	ug/m3	210	180	180	200	110	330	420	920	420	190	690	730	440	310	260	680	310	53	320	450	0.54	17	170
Trichlorofluoromethane	ug/m3	1400	900	690	640	190	310	660	1400	620	210	690	700	530	740	330	2500	1000	180	1300	2000	0.56	91	280
Trichlorotrifluoroethane	ug/m3	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.89	0.77 U	7.7 U	1.5 J	1	3.8 U	0.78	0.57 J	0.77 U	0.71 J	0.77 U
Vinyl acetate	ug/m3	0.72 U	0.9 U	3.6 U	0.9 U	15 U	1.8 U	1.8 U	7.1 U	3.6 U	0.71 U	0.36 U	0.71 U	0.7 U	0.35 U	70 U	0.7 U	0.35 U	7 U	2.2	0.7 U	0.7 U	0.7 U	7 U
Vinyl chloride	ug/m3	370	180	48	21	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	0.9

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix D2.
Summary of Analytical Results - Small Extraction Wells
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Western Small Retail Space																						
Location:		EW-7																						
Sample ID:		EW-7-090613	EW-7-100313	EW-7-121313	EW-7-030714	EW-7-061314	EW-7-091214	EW-7-121914	EW-07-032715	EW-7-061115	EW-7-091615	EW-7-121815	EW-7-021816	EW-7-080516	EW-7-021017	EW-7-090717	EW-7-022818	EW-7-091218	EW-7-020819	EW-7-090619	EW-7-021420	EW-7-09092020	EW-7-030821	EW-7
Sample Date:		9/6/2013	10/3/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3	0.44 U	1.2 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		2.5 U		1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	76	52	41	30	15	52	6.1	25	14	63	40	1.1 U	160	30	1.2	20	7.9	8.7	8.3	9.4	8.7	42	12
1,1,2,2-Tetrachloroethane	ug/m3	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	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.55 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	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	1.1 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	51	25	12	6.9	5.4	20	1.8	4.9	3.7	16	6.5	0.81 U	30	6.3	0.81 U	2.2	1.3	0.4 U	1.3	0.81	0.4 U	2.7	1.5
1,1-Dichloroethene	ug/m3	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.5	0.77	0.58	0.49 U	0.49 U	0.98 U	0.49 U	1.4	0.44 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	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	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.16 J	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3											1.4 U		7 U											
1,3,5-Trimethylbenzene	ug/m3	0.24	0.32 J	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.69	0.23 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 U	0.42 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.17 J	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3											7.2 U		36 U											
2-Butanone	ug/m3	12	8.5 J	5.9 J	3.8 J	9.3 J	7.2 J	35	9.7 J	8.3 J	5 J	4.6 J	67	35 J	6 J	180	17 J	21 J	12 U	22	32	18	21	25
2-Hexanone	ug/m3	0.51	0.41 U	0.41 U	0.41 U	0.49	0.82 U	0.41 U	1	0.38 J	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.17 U	0.27 J	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.33 J	0.12 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.46	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	24	35	14	6.9 J	19	18 J	9.4 J	13	7.4 J	8.2 J	19 U	29	81 J	25	51	10 J	23	21	17	26	15	11	7.8 J
Benzene	ug/m3	1.9	1.9	0.86	1.3	1.1	0.59 J	0.49	2.1	2.3	2.3	1.3	1.2	3.2 U	0.44	0.42 J	0.74	1.6	2.1	1.4	1	0.32 U	1.2	0.66
Benzyl chloride	ug/m3	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	1 U	1 U	5.2 U	0.52 U	1 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.24 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	1.3 U	3.9	1.3 U	6.7 U	0.67 U	1.3 U	1.3 U	1 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	0.36 U	1 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	2.1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	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	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	0.78 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.39 U
Carbon disulfide	ug/m3	0.42 J	3.1 U	4.6	7.4	12	6.2 U	3.7	10	16	6.2 U	6.2 U	6.2 U	31 U	3.1 U	1.9 J	17	47	30 J	47	25	3.1 U	3.1 U	66
Carbon tetrachloride	ug/m3	0.38	0.4 J	0.63 U	0.63 U	0.63 U	0.63 U	0.36 J	0.21 J	0.33 J	0.38 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	1.3 U	0.48 J	0.63 U	0.63 U	0.63 U	0.63 U	0.47 J	0.44 J
Chlorobenzene	ug/m3	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	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.093 U	0.61	0.63	1.6	1.4	0.53 U	0.26 U	0.97	1.3	0.45 J	0.53 U	0.53 U	2.6 U	0.26 U	1.1 U	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	6.6	2.7	2.6	2	2.4	3.8	0.91	2.1	2.6	4.1	2.8	0.98 U	9.3	2.2	0.98 U	1.5	1.4	2.1	1.7	0.86	1.3	2.9	2.6
Chloromethane	ug/m3	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.83 U	0.41 U	0.41 U	0.41 U	0.83 U	0.83 U	0.83 U	4.1 U	0.41 U	0.83 U	0.83 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	54	24	6	5	4.7	18	0.99	3.1	2.5	9.1	2.7	0.79 U	19	2.7	0.79 U	1.3	1.1	1.7	1.2	0.59	1.3	2.1	1.4
cis-1,3-Dichloropropene	ug/m3	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	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.12 U	0.34 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.3 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	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 U	1.7 U	2.2	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	1.5	0.49 U	2.4	2	1.9	2.5	2.6	1.5	2.3	2.9	3.2	2	6.9	1.1	2.2	0.99 U	2.2	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.49 U
Ethanol	ug/m3	14	30	12	13	32	18	11	7.5 U	42	93	14 J	18	49 J	13	65	8.6 J	19	7.5 U	63	140	45	150	12
Ethyl acetate	ug/m3	0.13 U	0.36 U	0.94	0.36 U	0.36 U	0.72 U	1.7	29	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.74 J	0.72 U	0.63 J	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.44	0.56	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	1.2	0.23 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.3	0.43 U	0.43 U	0.16 J	0.16 J	0.18 J
Hexachlorobutadiene	ug/m3	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	0.9 J	0.9 J	14 U	14 U	14 U	28 U	14 U	8.1 J	14 U	28 U	28 U	28 U	140 U	14 U	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	14 U
Isopropyl alcohol	ug/m3	3.4 U	17	13	9.8 U	1.8 J	20 U	4.8 J	12	6.6 J	22	20 U	6.4 J	98 U	5.1 J	11 J	3.9 J	47	5.4 J	4.6 J	11	9.8 U	8.5 J	4 J
m,p-Xylene	ug/m3	1	1.5	0.87 U	0.49 J	0.9	1.7 U	0.26 J	0.68 J	0.5 J	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 U	1.7 U	2.6	0.87 U	0.55 J	0.4 J	0.43 J	0.52 J
Methyl methacrylate	ug/m3	0.14 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		0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U			0.41 U
Methylene chloride	ug/m3	1.7	1.7 J	1.1 J	0.82 J	0.85 J	1.3 J	3.5 U	0.49 J	3.5 U	6.9 U	6.9 U	1.4 J	35 U	1.3 J	6.9 U	6.9 U	6.9 U	1.5 J	3.5 U	0.51 J	3.5 U	3.5 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.13 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3											1 U		7.1									0.52 U		
n-Heptane	ug/m3	0.59	1.1	0.41 U	0.44	2.2	0.57 J	4.4	0.43	0.15 J	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.4	0.73	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.57	0.22 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.3	0.43 U	0.43 U	0.43 U	0.2 J	0.17 J
Propylene (Propene)	ug/m3	2.4 U	6.9 U	6.9 U	6.9 U	1.1 J	14 U	6.9 U	0.96 J	1.6 J	1.3 J	14 U	14 U	69 U	0.77 J	14 U	14 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.41	0.45	0.43 U	0.43 U	0.45	0.85 U	0.43 U	0.34 J	0.46	0.85 U	0.85 U	0.85 U	4.3 U	0.43 U	0.85 U	0.85 U	0.78 J	0.43 U	0.43 U	0.71	0.31 J	0.46	0.21 J
Tetrachloroethene	ug/m3	410	150	140	81	110	370	18	81	89	390	170	2.7	1200	27	5	95	62	15	93	45	53	190	110
Tetrahydrofuran	ug/m3	10	4.6	2100	1400	2100	4.6	350	660	720	3.5	5.8	38	31	2.5	130	880	1100	220	2500	980	1300	1300	1700
Toluene	ug/m3	3.1	6.5	1	1.2	1.4	0.59 J	0.63	0.72	0.99	0.59 J	0.75 U	0.75 U	5.7	0.39	1.2	0.99	2.1	2.4	1.5	0.61	0.81	0.75	1.4
trans-1,2-Dichloroethene	ug/m3	64	32	13	9.2	7.7	28	1.9	6.7	4.9	22	7.7	0.79 U	46	9	0.79 U	2.6	1.7	2.2 J	1.4	0.82	1.4	3.2	1.8
trans-1,3-Dichloropropene	ug/m3	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	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	740	350	280	210	190	440	46	180	170	610	380	6.2	1500	140	15	170	120	42	150	81	130	320	210
Trichlorofluoromethane	ug/m3	1500	990	1100	690	300	1100	200	460	340	1300	850	23	2500	890	23	370	120	190	140	170	120	600	180
Trichlorotrifluoroethane	ug/m3	1.1	1.1	0.9	0.77 U	0.77 U	1 J	0.78	0.8 J	0.74 J	1.3 J	6.1 U	6.1 U	31 U	0.9 J	6.1 U	6.1 U	6.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Vinyl acetate	ug/m3	2.5 U	7 U	7 U	7 U	7 U	1.2 J	7 U	7 U	7 U	14 U	14 U	14 U	8.8 J	7 U	14 U	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U
Vinyl chloride	ug/m3	0.09 U	0.26 U	0.26 U	1.5	1.8	0.26 U	0.16 J	0.82	1.4	0.51 U	0.51 U	0.51 U	2.6 U	0.26 U	0.51 U	0.51 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1

Summary of All Analytical Results –
Indoor Air Samples for Large Retail Space

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																					
		Location:	AIR-13	AIR-4	AIR-5	AIR-6	AIR-7	AIR-8	IA-1															
		Sample ID:	AIR-13	AIR-4	AIR-5 DUP	AIR-6	AIR-7	AIR-8	IA-1	IA-1-020309	IA-1-021109	IA-1-021809	IA-1-022609	IA-1-030609	IA-1-033109	IA-1-041409	IA-1-042409	IA-1-091709	IA-1-092409	IA-1-100109	IA-1-100809	IA-1-120209	IA-1-010810	IA-1-012810	IA-1-020510
		Sample Date:	9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/2/2009	1/8/2010	1/28/2010	2/5/2010
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 U																
1,1,1-Trichloroethane	ug/m3	500	1.54	2.35	2.11	1.68	1.81	2.11	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4	2	0.27 U	0.27 U	0.27 U	0.27 U	0.24	0.27 U	0.27 U	0.76
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 U	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	0.24 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.109 U	0.109 U	0.109 U	0.109 U	0.26 U	0.109 U	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	0.19 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.182	0.321	0.233	0.224	0.218	0.235	0.71	0.2 U	0.2 U	0.2 U	0.27	0.32	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.104	0.098	0.091	0.08	0.189 U	0.086	0.38	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA							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	0.52 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.176	0.236	0.265	0.212	0.234 U	0.22	0.25 U	0.36	0.7	0.77	0.25 U	0.25 U	0.25 U	0.18 U	0.48	0.29	0.35	0.28	0.51	0.52	0.37	0.25 U	0.26
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.154 U	0.154 U	0.154 U	0.154 U	0.366 U	0.154 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.0809 U	0.0809 U	0.0809 U	0.0809 U	0.193 U	0.0809 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.0924 U	0.0924 U	0.0924 U	0.0924 U	0.22 U	0.0924 U	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	0.17 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.349 U	0.349 U	0.349 U	0.349 U	0.834 U	0.349 U	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	0.25 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.0982 U	0.103	0.115	0.0982 U	0.234 U	0.0982 U	0.25 U	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	0.18	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.0442 U	0.0442 U	0.0442 U	0.0442 U	0.106 U	0.0442 U	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.11 U	0.08 U	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
1,3-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA																							
2-Butanone	ug/m3	500	2.12	1.47 U	2.42	2.47	3.52 U	2.86	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2	4.4	2	2.6	2.7	1.3	2.7	1.6	0.3 U	2.4
2-Hexanone	ug/m3	NA							0.2 U	0.2 U	0.6	0.42	0.2 U	0.23	0.2 U	0.14 U	0.48	0.43	0.52	0.73	0.31	0.71	0.36	0.2 U	0.47
4-Ethyltoluene	ug/m3	NA							0.25 U	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	0.18	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	2.74 U	2.74 U	2.74 U	2.74 U	6.55 U	2.74 U																	
4-Methyl-2-pentanone	ug/m3	200	2.05 U	2.05 U	2.05 U	2.05 U	4.88 U	2.05 U	0.2 U	0.2 U	0.43	0.3	0.2 U	0.2 U	0.2 U	0.14 U	0.52	0.21	0.35	0.32	0.2 U	0.34	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	7.48	8.88	8.52	8.39	11.3 U	9.34	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13	12	2	19
Acrylonitrile	ug/m3	NA	1.08 U	1.08 U	1.08 U	1.08 U	2.59 U	1.08 U																	
Benzene	ug/m3	3.3	0.46	0.663	0.731	0.621	0.746	0.707	1	0.68	1.9	3	0.69	0.87	0.71	0.56	0.78	0.49	0.47	0.39	0.48	1.1	1.2	0.16 U	0.98
Benzyl chloride	ug/m3	NA							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	0.19 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.134 U	0.134 U	0.134 U	0.134 U	0.32 U	0.134 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	0.33 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
Bromoform	ug/m3	7.3	0.206 U	0.206 U	0.206 U	0.206 U	0.493 U	0.206 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	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
Bromomethane	ug/m3	NA	0.092	0.0776 U	0.086	0.0776 U	0.185 U	0.0776 U	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	0.14 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA							0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.412	0.414	0.522	0.402	0.408	0.505	0.35	0.41	0.52	**0.55**	0.46	**0.59**	0.53	0.31	0.43	0.48	0.38	0.42	0.43	0.48	0.43	0.31 U	0.4
Chlorobenzene	ug/m3	200	0.092 U	0.092 U	0.092 U	0.092 U	0.22 U	0.092 U	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	0.17 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.0527 U	0.0527 U	0.0527 U	0.0527 U	0.126 U	0.0527 U	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.335	0.163	0.225	0.173	0.233 U	0.204	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	0.17 U	0.26	0.24 U	0.47
Chloromethane	ug/m3	80	2.44 U	2.44 U	2.44 U	2.44 U	5.82 U	2.44	1.1	1	1.4	1.5	1	1	1.2	1.1	1.3	1.1	1.1	0.98	0.95	1.3	1.1	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	100	2.35	1.21	1.38	1.01	0.787	1.26	2	0.2 U	1	1.1	0.73	1.3	0.5	0.6	1.3	0.2 U	0.2 U	0.83	0.44	0.57	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.0907 U	0.0907 U	0.0907 U	0.0907 U	0.216 U	0.0907 U	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	0.16 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA							0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.17 U	0.12 U	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
Dibromochloromethane	ug/m3	NA	0.096 U	0.096 U	0.096 U	0.096 U	0.229 U	0.096 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	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
Dichlorodifluoromethane	ug/m3	500	1.92	1.98	2.38	1.95	1.95	2.2	1.8	2.1	2.6	2.8	2.6	2.6	3.1	2	8.3	2.4	2	2.3	2.1	1.6	3.1	2.4	2.4
Ethanol	ug/m3	NA							5.7	8.3	14	20	9.8	7.5	18	5	39	6.2	7	6.5	8.8	10	8.4	7	29
Ethyl acetate	ug/m3	NA							0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.18	0.278	0.288	0.223	0.207 U	0.238	0.26	0.28	0.66	0.85	0.23	0.22 U	0.22 U	0.16 U	0.94	0.23	0.23	0.22 U	0.28	0.46	0.4	0.22 U	0.32
Hexachlorobutadiene	ug/m3	NA							1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA							0.92	0.74	1.2	1.6	1	0.51	0.53	0.65	1.7	0.99	1.3	0.41	0.77	0.78	0.74	0.18 U	0.82
Isopropyl alcohol	ug/m3	NA							3.4	3.1	5.3	5.8	3.8	2	9.1	0.18 U	240	5.2	5.2	0.25 U	2.7	1.8	2.4	0.25 U	9.4
Isopropylbenzene	ug/m3	120	2.46 U	2.46 U	2.46 U	2.46 U	5.86 U	2.46 U																	
m,p-Xylene	ug/m3	NA	0.616	0.998	1.08	0.859	0.688	0.894	0.76	0.87	2.1	2.8	0.8	0.43 U	0.63	0.31 U	2.5	0.79	0.91	0.73	1	1.4	1.1	0.43 U	1
Methyl methacrylate	ug/m3	NA																							
Methylene chloride	ug/m3	17	3.47 U	3.47 U	3.47 U	3.47 U	8.3 U	3.47 U	2.3	**33**	2.3	1.8	4.4	1.1	6.7	3.5	4.8	1.6	3.6	0.7 U	0.7 U	2.9	0.7 U	1.4	1.5
Methyl-t-butyl ether	ug/m3	190	0.072 U	0.072 U	0.072 U	0.072 U	0.172 U	0.072 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA	0.262 U	0.262 U	0.262 U	0.262 U	0.625 U	0.262 U																	
n-Butylbenzene	ug/m3	410	2.74 U	2.74 U	2.74 U	2.74 U	6.55 U	2.74 U																	
n-Heptane	ug/m3	NA							0.23	0.2 U	0.59	0.75	0.2 U	0.2 U	0.2 U	0.14 U	0.67	0.2 U	0.2 U	0.2 U	0.26	0.42	0.35	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.229	0.349	0.397	0.316	0.24	0.329	0.26	0.33	0.76	0.99	0.3	0.22 U	0.22 U	0.16 U	0.7	0.31	0.4	0.28	0.4	0.52	0.44	0.22 U	0.38
Propylene (Propene)	ug/m3	NA							0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U
sec-Butylbenzene	ug/m3	410	2.74 U	2.74 U	2.74 U	2.74 U	6.55 U	2.74 U																	
Styrene	ug/m3	290	0.448	0.158	0.27	0.17	0.203 U	0.19	0.21 U	0.21 U	0.21	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.19	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	**9.07**	4.76	**5.58**	3.87	3.23	**5.2**	**6.6**	0.57	4.2	3.2	2.6	4.9	1.5	1.9	**6.1**	0.34 U	0.34 U	2	1.1	3.2	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	NA							12	1.2	1.3	0.48	0.32	0.15 U	0.15 U	0.23	0.4	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	500	1.18	1.3	1.28	1.01	0.911	1.16	1.7	1.4	4	5.7	2.3	0.93	1.7	0.72	5.7	1.3	1.1	0.78	1.2	2.8	2.1	0.19 U	0.82
trans-1,2-Dichloroethene	ug/m3	200	0.0792 U	0.0792 U	0.0792 U	0.0792 U	0.189 U	0.0792 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.0907 U	0.0907 U	0.0907 U	0.0907 U	0.216 U	0.0907 U	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	0.16 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	**3.37**	**2.48**	**2.56**	**1.97**	**1.69**	**2.43**	**4.2**	0.46	**1.6**	**1.4**	0.65	**1.5**	0.57	0.74	**1.6**	0.27 U	0.27 U	**1.1**	0.56	0.69	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	500	1.11	1.24	1.39	1.13	1.15	1.31	2.1	1.4	1.7	3.1	1.6	1.7	1.2	1.2	1.5	1.4	1.3	1.2	1.2	1.3	2.5	0.81	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.478	0.513	0.625	0.466	0.914 U	0.564	0.65	0.64	0.47	0.46	0.67	0.48	0.59	0.54	1.7	0.48	0.44	0.45	0.51	0.52	0.63	0.38 U	0.71
Vinyl acetate	ug/m3	NA							0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.25 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	ug/m3	1.9	0.352	0.174	0.202	0.146	0.133	0.191	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.1 U	0.16	0.13 U	0.13 U	0.17	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																						
		Location:	IA-1																						
		Sample ID:	IA-1-021210	IA-1-021910	IA-1-032610	IA-1-043010	IA-1-052810	IA-1-070110	IA-1-091610	IA-1-120710	IA-1-021711	IA-1-060211	IA-1-091511	IA-1-120811	IA-1-030812	IA-1-061412	IA-1-091312	IA-1-010313	IA-1-031513	IA-1-060713	IA-1-090613	IA-1-121313	IA-1-030714	IA-1-061314	IA-1-091214
		Sample Date:	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1											0.62 U		0.37 U	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
1,1,1-Trichloroethane	ug/m3	500	0.3	0.88	0.27 U	1.2	0.33	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.12 J	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 J	0.19 U	0.2
1,1,2,2-Tetrachloroethane	ug/m3	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	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.1 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.16 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.061 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.059 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.22 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.4	0.43	0.56	0.25 U	0.55	0.25 U	0.25 J	0.1 J	0.15 U	0.16	0.55	0.17 U	0.17 U	0.21	0.32	0.17 U	0.52	0.25	0.14 J
1,2-Dibromoethane (EDB)	ug/m3	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	0.23 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	0.12 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 J	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	0.061 U
1,2-Dichloropropane	ug/m3	0.42	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	0.16 U	0.16 U	0.069 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	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 J	0.044 J	0.15 U	0.059 J	0.32	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.16 J	0.17 U	0.068 J
1,3-Butadiene	ug/m3	NA	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.55	0.078 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U
1,4-Dioxane	ug/m3	NA											0.18 U												
2-Butanone	ug/m3	500	1.1	1.2	1.3	0.78	2.6	3.3	0.85	0.68	1.7 B	2.9 U	5.9 J	1.8 J	1.2 J	1.4 J	3 J	4.1 J	0.64 J	2.9 J	2 J	0.92 J	1.6 J	3.1 J	2.8 J
2-Hexanone	ug/m3	NA	0.2 U	0.27	0.27	0.2 U	0.67	0.75	0.2 U	0.2 U	0.2 U	4.1 U	0.62	0.22	0.26	0.12 U	0.28	0.14 U	0.14 U	0.38	0.27	0.14 U	0.3	0.45	0.25
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.071 J	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
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.22	0.2 U	0.2 U	0.2 U	0.28	0.35	0.35	0.2 U	0.2 U	0.2 U	0.23	0.39	0.13	0.093 J	0.26	0.14 U	0.14 U	0.24	0.52	0.14 U	0.23	0.49	0.33
Acetone	ug/m3	500	7.3	8.5	7	6.5	18	18	11	12 B	15 B	11 B	18	8	6	12	16 B	3.3	5	21	35	19	13	23	13
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.64	0.53	0.59	0.64	0.5	0.46	0.8	0.49	1.5	0.25	0.32	0.47	0.34	0.19	0.67	0.11	0.72	0.28	0.75	0.54	2.3	0.46	0.39
Benzyl chloride	ug/m3	NA	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	0.18 U	0.18 U	0.078 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.1 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U
Bromomethane	ug/m3	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	0.12 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	0.12
Carbon disulfide	ug/m3	NA	0.16 U	0.33	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.23 J	0.2 J	1.1 U	0.21 J	0.11 J
Carbon tetrachloride	ug/m3	0.54	0.31 U	0.45	0.44	0.48	**0.55**	0.52	0.5	0.46	0.47	0.53	**0.57**	0.49	0.46	0.46	0.39	0.22	0.44	0.53	0.53	0.54	0.41	0.42	0.4
Chlorobenzene	ug/m3	200	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	0.16 U	0.16 U	0.069 U
Chloroethane	ug/m3	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	0.079 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	0.079 U
Chloroform	ug/m3	0.5	0.43	0.24 U	0.24 U	0.25	0.24 U	0.24 U	**3.8**	0.24 U	0.24 U	0.24 U	0.24 J	0.085 J	0.073 U	0.097 J	0.19	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.13 J	0.25	0.27
Chloromethane	ug/m3	80	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1	0.92	1.3	0.93	1.3	1.6	1.3	0.072	1.1	1.4	1.2	1	1.3	1.3	0.76
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.56	0.2 U	1.3	0.2 U	0.5	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.15	0.059 U	0.12 U	0.045 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.059 U
cis-1,3-Dichloropropene	ug/m3	NA	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	0.068 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.32	0.12 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.13 U
Dichlorodifluoromethane	ug/m3	500	2.6	3	1.6	2.2	2.3	2.7	1.7	2	3.1	1.5	2	2.6	2.1	2.7	2.7	0.17	1.7	3.2	1.9	2.4	1.7	2.1	2.2
Ethanol	ug/m3	NA	19	43	4.6	4.4	6	6.5	9	2.7	9	2.8	6.4	2.2 J	3.2	4.4	8.5	2.6	2 J	26	23	12	22	80	34
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.92	0.26	0.57	0.13	0.21	0.33	0.13 U	25	0.34	0.13 U	0.46
Ethylbenzene	ug/m3	290	0.22 U	0.22 U	0.22 U	0.23	0.29	0.27	0.51	0.22 U	0.54	0.22 U	0.22 J	0.14	0.1 J	0.11 J	0.47	0.15	0.15 U	0.19	0.35	0.15 U	0.53	0.23	0.17
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.32 U
Hexane	ug/m3	NA	1.3	0.45	0.2	1.1	0.8	0.46	0.61	0.35 U	1.9	0.43	7 J	0.39 J	0.72 J	0.55 J	1.3 J	4.9 J	0.64 J	0.79 J	19	4.9 U	1.2 J	0.43 J	0.55 J
Isopropyl alcohol	ug/m3	NA	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 J	2.9 U	0.64 J	2.9 U	1.9 J	3.4 U	0.36 J	3.4 U	3.4 U	2.1 J	1.9 J	5.5	4
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.43 U	0.43 U	0.5	0.77	1.1	1.2	1.7	0.43 U	1.6	0.42 J	0.51	0.41	0.22 J	0.36	1.7	0.3	0.3 J	0.79	1	0.19 J	1.6	0.86	0.59
Methyl methacrylate	ug/m3	NA								0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	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
Methylene chloride	ug/m3	17	1.9	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.56	0.56	4.8	1.3	1.7 J	1.6	3.3	1.2	1.8 B	1.2	1.9	1.3	**34**	0.68 J	0.8 J	0.67 J	0.9 J
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U
Naphthalene	ug/m3	NA																							
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.5	0.2 U	0.2 J	0.079 J	0.12 U	0.093 J	0.44	0.14 U	0.14 U	0.14 U	0.81	0.14 U	0.67	0.44	0.53
o-Xylene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.28	0.46	0.51	0.69	0.22 U	0.56	0.22 U	0.22 J	0.15	0.096 J	0.14	0.66	0.15	0.15 U	0.27	0.42	0.15 U	0.62	0.32	0.22
Propylene (Propene)	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.1 J	1.7 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.31	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.85	0.13 U	0.038 J	0.14 J	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.16	0.29	0.11 J
Tetrachloroethene	ug/m3	5	0.34 U	1.2	0.34 U	4.5	0.55	1.1	0.34 U	3.3	**5.6**	0.34 U	0.47	0.84	0.21	0.065 J	2.7	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21 J	0.31	0.13
Tetrahydrofuran	ug/m3	NA	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.24	0.16	0.15 U	0.15 U	0.15 U	0.15 U	0.14	0.088 U	0.088 U	0.1 U	0.1 U	0.1 U	0.1 U	0.27	0.1 U	0.1 U	0.16	0.14
Toluene	ug/m3	500	0.69	0.58	0.8	1.3	0.91	0.99	2.5	0.44	3	0.58	0.93	1.6	0.3	0.64	2.8	0.13	0.49	1	4.2	0.62	3.2	1.9	2.7
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.059 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.068 U
Trichloroethene	ug/m3	1	0.31	0.39	0.27 U	**1.5**	0.27 U	0.4	0.27 U	**1.7**	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.21	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.25	0.19 U	0.081
Trichlorofluoromethane	ug/m3	500	1.5	1.5	1.4	1.2	1.3	1.4	2.7	1.2	1.7	1.1	1.8	1	0.89	1.8	1.7	0.2	1.3	1.9	2.4	1.4	1.6	1.4	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.63	0.55	0.55	0.48	0.59	0.53	0.48	0.57	0.64	0.67	0.59	0.69	0.4	0.59	0.57	0.27	0.79	1.1	0.63	0.54	0.45	0.57	0.58
Vinyl acetate	ug/m3	NA	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.038 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																					
		Location:	IA-1																IA-2					
		Sample ID:	IA-1-121914	IA-01-032715	IA-1-061115	IA-1-091615	IA-1-121815	IA-1-021816	IA-1-080516	IA-1-021017	IA-1-090717	IA-1-022818	IA-1-091218	IA-1-020819	IA-1-090619	IA-1-021420	IA-1-09092020	IA-1-030821	IA-1	IA-2	IA-2-020309	IA-2-021109	IA-2-021809	IA-2-022609	IA-2-041409
		Sample Date:	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	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	0.44 U	0.37 U	0.44 U						
1,1,1-Trichloroethane	ug/m3	500	0.16 J	0.05 J	0.19 U	0.28	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.43	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	9.9	0.63	1.1	1.1	0.44	1.4
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.065 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.42	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.082 J	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	0.12 U	0.14 U	0.72	0.2 U	0.2 U	0.2 U	0.32	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.078 J	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	0.12 U	0.14 U	0.41	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.52 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.12 J	0.14 J	0.14 J	0.32	0.74	0.24	0.17 U	0.22	0.17 U	0.31	0.57	0.29	0.17 U	0.2	0.15 U	0.23	0.25 U	0.37	0.7	0.65	0.3	0.18 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	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	0.7 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.06 J	0.099 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.06 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	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	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA					0.25 U		0.25 U											0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.041 J	0.069 J	0.059 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.11 J	0.17 U	0.17 U	0.17 U	0.062 J	0.15 U	0.089 J	0.25 U	0.25 U	0.25	0.25 U	0.25 U	0.18 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.048 J	0.078 U	0.13	0.16	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.11 U	0.11 U	0.3	0.66	0.11 U	0.08 U
1,3-Dichlorobenzene	ug/m3	410	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	0.54 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	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	0.59 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,4-Dioxane	ug/m3	NA					1.3 U		1.3 U																
2-Butanone	ug/m3	500	0.84 J	1.5 J	1.1 J	1.2 J	1.4 J	0.5 J	1.6 J	0.72 J	2.1 J	1.4 J	2 J	0.88 J	0.73 J	1.1 J	2 J	2 J	4.2	21	4.1	4.6	3	2.9	0.95
2-Hexanone	ug/m3	NA	0.14 U	0.3	0.14 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	0.32	0.44	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.2 U	0.2 U	0.35	0.26	0.2 U	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.045 J	0.17 U	0.055 J	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	0.15 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 J	0.08 J	0.14 U	0.21	0.14 U	0.33	0.14 U	0.32	0.083 J	0.14 U	0.45	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.35	0.2 U	0.2 U	0.14 U
Acetone	ug/m3	500	9.3	12	7.7	17	12	9.8	15	4.9	14	9.8	12	4.5	6.7	7.8	9.3	8.9	19	17	9.6	14	18	9.7	13
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.38	0.53	0.23	0.46	0.98	1	0.27	0.44	0.5	0.48	0.47	0.91	0.41	0.36	0.24	0.59	0.55	1	0.67	1.8	3	0.77	0.58
Benzyl chloride	ug/m3	NA	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	0.16 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.12 J	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	0.23 U	0.2 U	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U
Bromoform	ug/m3	7.3	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	0.36 U	0.31 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.095 J	0.14 U	0.14 U	0.14 U	0.14 U	0.13 J	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.22 J	0.97 J	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	1.1 U	0.93 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U
Carbon tetrachloride	ug/m3	0.54	0.29	0.32	0.34	0.49	0.5	0.42	0.4	0.39	0.4	0.39	0.5	**0.87**	0.36	0.44	0.38	**0.55**	0.44	0.33	0.41	**0.55**	**0.57**	0.48	0.41
Chlorobenzene	ug/m3	200	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	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.096	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.1 U
Chloroform	ug/m3	0.5	0.13 J	0.075 J	0.14 J	0.3	**0.67**	0.17 U	0.42	0.17 U	0.16 J	0.14 J	0.16 J	0.5	0.18	0.17 U	0.13 J	0.15 U	0.13 J	0.24 U	0.24 U	0.24 U	0.24 U	0.25	0.17 U
Chloromethane	ug/m3	80	0.8	1	1.2	1.2	1.5	0.97	1.2	1.2	1.2	1.1	1.1	1.3	0.14 U	1.3	0.14 U	0.12 U	1.3	1.1	1	1.3	1.3	1	1.1
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	2.1	0.24	1.1	1.1	0.95	0.59
cis-1,3-Dichloropropene	ug/m3	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	0.14 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.84	3.3	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	0.1 U	0.12 U	0.17 U	0.17 U	0.44	0.61	0.17 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.68	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U
Dichlorodifluoromethane	ug/m3	500	1.7	1.2	2.3	1.7	2.2	1.4	0.62	1.2	1.5	2.2	1.5	2.4	0.17 U	1.5	2.1	0.15 U	2.4	1.8	2.2	2.6	2.9	2.7	2.1
Ethanol	ug/m3	NA	29	9.1	11	21	22	51	20	3	15	94	6.8	17	16	5.1	81	23	110	5.5	8.8	12	17	7.9	4.9
Ethyl acetate	ug/m3	NA	0.2	0.57	0.13 U	0.65	0.13 U	0.39	0.13 U	0.13 U	0.38	0.1 J	0.25 U	0.13 U	0.13 U	0.13 U	1.3 U	7.5	1.3 U	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U
Ethylbenzene	ug/m3	290	0.064 J	0.13 J	0.1 J	0.18	0.57	0.22	0.2	0.15 U	0.24	0.15 U	0.29	0.5	0.28	0.15 U	0.14 J	0.1 J	0.22	0.26	0.28	0.65	0.79	0.3	0.18
Hexachlorobutadiene	ug/m3	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	0.75 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U
Hexane	ug/m3	NA	0.32 J	5.5	0.35 J	0.68 J	2.2 J	4.4 J	0.51 J	0.29 J	0.3 J	0.3 J	0.62 J	4.9 U	4.9 U	4.9 U	4.9 U	4.2 U	4.9 U	0.88	0.57	1.3	1.6	0.69	0.72
Isopropyl alcohol	ug/m3	NA	1.5 J	2 J	2 J	2.3 J	3.4 U	3.4 U	5.1	0.91 J	2.4 J	2 J	5.3	1.6 J	1.4 J	3.4 U	3.4 U	2.9 U	3.2 J	3.7	3.1	4.5	4.5	4.7	5.6
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.24 J	0.36	0.34	0.58	3	0.58	0.78	0.15 J	0.92	0.24 J	1	1.1	0.99	0.3 U	0.47	0.3	0.71	0.76	0.88	2	2.6	0.93	0.61
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U		0.14 U		0.14 U		0.14 U	0.23	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U						
Methylene chloride	ug/m3	17	0.26 J	6	0.51 J	0.74 J	1.1 J	0.3 J	1 J	0.41 J	0.29 J	0.38 J	0.33 J	0.73 J	0.35 J	0.68 J	1.2 U	2.2	0.93 J	2	**30**	4	1.6	1.8	4
Methyl-t-butyl ether	ug/m3	190	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	0.11 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U
Naphthalene	ug/m3	NA					0.18 U		0.18 U																
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.14 U	0.15	0.12 J	0.24	0.32	1.1	0.14 U	0.14 U	0.16	0.16	0.35	0.14 U	0.31	0.14 U	0.14 U	0.12 U	0.14 U	0.23	0.2 U	0.58	0.73	0.22	0.15
o-Xylene	ug/m3	NA	0.064 J	0.14 J	0.13 J	0.22	0.8	0.25	0.28	0.15 U	0.33	0.11 J	0.38	0.53	0.34	0.15 U	0.2	0.15	0.26	0.3	0.34	0.76	0.89	0.34	0.22
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.64 J	0.8 J	1 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.15 U	0.15 U	0.042 J	0.12 J	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 J	0.15 U	0.15 U	0.15 U	0.08 J	0.13 U	0.1 J	0.21 U	0.21 U	0.21 U	0.23	0.21 U	0.15 U
Tetrachloroethene	ug/m3	5	0.3	0.24 U	0.22 J	1.2	**7**	0.32	0.35	0.24 U	0.34	0.15 J	0.26	0.74	0.16 J	0.24 U	0.3	0.28	0.39	**7.5**	0.64	4.2	3.2	3.3	2.2
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.099 J	0.1 U	0.1 U	0.1 U	0.1 U	0.083 J	0.1 U	0.17	0.1 U	0.1 U	0.1 U	0.4 J	0.88 U	1 U	12	1.2	1.2	0.49	0.41	0.21
Toluene	ug/m3	500	0.58	0.63	0.62	1.3	1.9	0.99	1.2	0.44	1.3	0.53	1.4	1.2	3.2	0.28	0.72	0.53	1.2	1.7	1.3	4	5.5	2.3	1
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.32 J	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	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	0.14 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U
Trichloroethene	ug/m3	1	0.14 J	0.087 J	0.19 U	0.44	0.22	0.28	0.19 U	0.19 U	0.26	0.19 U	0.18 J	0.48	0.12 J	0.19 U	0.19 U	0.1 J	0.13 J	**4.4**	0.56	**1.6**	**1.4**	0.91	0.77
Trichlorofluoromethane	ug/m3	500	1.3	1.1	1.5	1.3	2.1	1	1	1.3	1.2	1.1	1.3	1.9	1.2	1.2	1.1	1.1	1.3	2	1.2	1.7	2.8	1.6	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.62	0.47 J	0.63 J	0.87 J	0.6 J	0.44 J	0.48 J	0.55 J	0.46 J	0.49 J	0.53 J	1.4	1.1 U	0.43 J	0.49 J	0.53 J	0.63 J	0.69	0.58	0.49	0.46	0.64	0.56
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.5 U	1 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.075 J	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.21	0.09 U	0.09 U	0.089 U	0.077 U	0.089 U	0.27	0.13 U	0.18	0.2	0.13 U	0.1 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																					
		Location:	IA-2																					
		Sample ID:	IA-2-042409	IA-2-091709	IA-2-092409	IA-2-100109	IA-2-100809	IA-2-012810	IA-2-020510	IA-2-021210	IA-2-021910	IA-2-032610	IA-2-043010	IA-2-052810	IA-2-070110	IA-2-091610	IA-2-120710	IA-2-021711	IA-2-060211	IA-2-091511	IA-2-120811	IA-2-030812	IA-2-061412	IA-2-091312	IA-2-010313
		Sample Date:	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1																		0.62 U		0.37 U	0.37 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	1	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.13 J	0.082 U	0.16 U	0.08 J	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	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	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.043 J	0.14 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.045 J	0.14 U
1,2,4-Trichlorobenzene	ug/m3	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	0.75 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	0.45 U	0.52 U	0.52 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 J	0.088 J	0.15 U	0.19	0.48	0.17
1,2-Dibromoethane (EDB)	ug/m3	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	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U	0.051 J	0.08 J	0.14
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	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									
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J	0.26	0.17
1,3-Butadiene	ug/m3	NA	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.08 J	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.093 J	0.21 U
1,4-Dioxane	ug/m3	NA																		0.18 U					
2-Butanone	ug/m3	500	1.6	1.1	2.3	0.81	1	2.1	0.7	0.44	0.3 U	0.96	1.3	3.1	3.4	0.96	0.36	1.9 B	2.9 U	5.9 J	0.93 J	0.84 J	1.4 J	2.8 J	4.1
2-Hexanone	ug/m3	NA	0.2 U	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 U	0.16	0.15	0.32	0.14
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.086 J	0.19	0.17
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	0.1 J	0.11 J	0.12 J	0.19	0.14
Acetone	ug/m3	500	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B	8.9 B	18	6.2	5.4	14	17 B	3.3
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.44	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39	0.36	0.24	0.62	0.11
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	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	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 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
Bromomethane	ug/m3	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	0.22	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	ug/m3	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	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1
Carbon tetrachloride	ug/m3	0.54	0.41	0.44	0.4	0.46	0.42	0.31 U	0.4	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.5	0.48	0.31 U	**0.62**	0.52	0.49	0.48	0.45	0.43	0.22
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16
Chloroethane	ug/m3	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	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.47	0.4	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**3.4**	0.24 U	0.24 U	0.24 U	0.24 J	0.085 J	0.073 U	0.14 J	0.25	0.17 U
Chloromethane	ug/m3	80	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.8	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93	1	1.4	1.3	0.072
cis-1,2-Dichloroethene	ug/m3	100	1.6	0.2 U	0.2 U	0.79	0.48	0.58	0.2 U	0.2 U	0.2 U	0.2 U	1	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.17	0.059 U	0.12 U	0.064 J	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.26	0.12
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.9	2	2.1	2.3	2.1	2.2	2.5	2.6	3	1.6	2	2.4	2.6	1.7	1.9	3.2	1.6	2	2.7	2.1	2.7	2.8	0.17
Ethanol	ug/m3	NA	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9	5	7.6	9	2.7	10	2.5	8.5	2.1 J	2.1 J	10	9.8	2.6
Ethyl acetate	ug/m3	NA	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.22	0.24	3.5	0.71	0.13
Ethylbenzene	ug/m3	290	0.22 U	0.22 U	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 J	0.13 J	0.13 U	0.13 U	0.41	0.15
Hexachlorobutadiene	ug/m3	NA	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.74	0.41	0.42	0.71	1	0.61	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U	1.6	0.31	7 J	0.32 J	0.34 J	2.6 J	2.4 J	4.9
Isopropyl alcohol	ug/m3	NA	28	340	5.7	3.3	0.25 U	0.25 U	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	0.25 U	2	1.2 U	4.9 J	2.9 U	0.76 J	2.9 U	2.8 J	3.4 U
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.63	0.71	0.93	0.78	1.1	1.3	1.1	0.43 U	0.43 U	0.47	0.75	0.96	1.3	1.5	0.43 U	1.5	0.36 J	0.57	0.39	0.18 J	0.38	1.3	0.3
Methyl methacrylate	ug/m3	NA															0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	4.2	0.7 U	0.7 U	0.7 U	0.7 U	1.4	0.9	1.9	0.7 U	0.7 U	0.7 U	0.35 U	1.3	0.53	0.61	4.2	1	7.5	1.1	1.2	6.6	6.4 B	1.2 J
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.18	0.13 U
Naphthalene	ug/m3	NA																							
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.83	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.8	0.34	0.2 U	0.48	0.2 U	0.2 U	0.091 J	0.12 U	0.11 J	0.4	0.14
o-Xylene	ug/m3	NA	0.22	0.27	0.42	0.3	0.44	0.46	0.4	0.22 U	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 J	0.17	0.55	0.15
Propylene (Propene)	ug/m3	NA	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.36	0.24	0.21 U	0.21 U	0.21 U	0.21 J	0.059 J	0.13 U	0.097 J	0.19	0.15
Tetrachloroethene	ug/m3	5	**7.6**	0.34 U	0.35	1.7	1	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6	0.43	1.4	0.34 U	3.2	**5.2**	0.34 U	0.45	0.92	0.23	0.09 J	2	0.24
Tetrahydrofuran	ug/m3	NA	0.28	0.15 U	0.15 U	0.15 U	0.15 U	1.6	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.097	0.088 U	0.048 J	0.1 U	0.1
Toluene	ug/m3	500	1.2	1.1	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.8	1.3	0.91	1.3	2.2	0.41	2.9	0.55	0.99	1.6	0.24	0.9	2.6	0.13
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	**1.9**	0.27 U	0.27 U	0.99	0.57	0.79	0.27 U	0.27 U	0.27 U	0.27 U	**1.2**	0.27 U	0.53	0.27 U	**1.7**	0.27 U	0.27 U	0.27 U	0.27	0.081 U	0.16 U	0.2	0.19 U
Trichlorofluoromethane	ug/m3	500	1.3	1.2	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	0.2
Trichlorotrifluoroethane	ug/m3	NA	0.74	0.5	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44	0.53	0.94	0.45	0.59	0.71	0.71	0.61	0.71	0.42	0.57	0.64	0.27
Vinyl acetate	ug/m3	NA	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 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
Vinyl chloride	ug/m3	1.9	0.18	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Large Retail Space																					
Location:			IA-2																					
Sample ID:			IA-2-031513	IA-2-060713	IA-2-090613	IA-2-121313	IA-2-030714	IA-2-061314	IA-2-091214	IA-2-121914	IA-02-032715	IA-2-061115	IA-2-091615	IA-2-121815	IA-2-021816	IA-2-080516	IA-2-021017	IA-2-090717	IA-2-022818	IA-2-091218	IA-2-020819	IA-2-041119	IA-2-090619	IA-2-021420	IA-2-09092020
Sample Date:			3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	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		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
1,1,1-Trichloroethane	ug/m3	500	0.19 U	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	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.1 J	0.19 U	8	0.61	0.19 U	0.19 U	**530**
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	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	0.24 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
1,1,2-Trichloroethane	ug/m3	12	0.19 U	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	0.19 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
1,1-Dichloroethane	ug/m3	430	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	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
1,1-Dichloroethene	ug/m3	20	0.14 U	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2	0.14 U	0.14 U	0.14 U	6.1
1,2,4-Trichlorobenzene	ug/m3	NA	0.52 U	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.13 J	0.43	0.2	0.17 U	0.57	0.27	0.2	0.17 U	0.25	0.23	0.17 U	0.48	0.27	0.21	0.17 U	0.17	0.42	0.17 U	0.62	0.17 U	0.31	0.17 U	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	**0.67**	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.74 J	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.062 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.11 J	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	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
1,2-Dichlorotetrafluoroethane	ug/m3	NA												0.25 U		0.25 U									
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.17 J	0.17 U	0.059 J	0.17 U	0.079 J	0.069 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.47	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.078 U	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	0.2	0.078 U	0.078 U	0.087	0.078 U	0.078 U	0.07 J	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.57	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.64	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA												1.3 U		1.3 U									
2-Butanone	ug/m3	500	2.4 J	4.2	2.1 J	1.2 J	1.8 J	1.6 J	4.9	0.92 J	1.7 J	1.8 J	1.7 J	1.9 J	1.3 J	1.3 J	0.74 J	2.2 J	2.4 J	1.5 J	2.5 J	0.78 J	0.68 J	1.3 J	4.1 U
2-Hexanone	ug/m3	NA	0.22	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	0.18	0.2	0.14 U	0.14 U	0.37	0.72	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.57	0.17 U	0.17 U	0.17 U	0.17 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.54	0.46	0.18	0.57	1.1	1.3	0.14 U	0.84	0.9	1.2	1.1	0.39	1.4	0.14 U	2	0.73	1.6	0.91	0.14 U	0.47	0.14 U	0.14 U
Acetone	ug/m3	500	46	32	22	32	32	29	37	9.7	40	29	170 E	33	26	36	8.8	31	43	10	10	6.3	6.4	7.9	13
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.91	0.56	0.32	0.66	2	0.62	0.3	0.36	0.67	0.39	0.66	1.1	0.52	0.25	0.49	0.55	0.57	0.48	0.85	0.31	0.39	0.36	0.45
Benzyl chloride	ug/m3	NA	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	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
Bromodichloromethane	ug/m3	0.46	0.24 U	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	0.24 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	0.23 U
Bromoform	ug/m3	7.3	0.36 U	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	0.36 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
Bromomethane	ug/m3	NA	0.14 U	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	0.14 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	1.4 U	0.27 U	0.14 U
Carbon disulfide	ug/m3	NA	0.47 J	0.39 J	0.33 J	0.17 J	0.17 J	0.56 J	0.49 J	1.1 U	0.29 J	0.39 J	0.41 J	0.26 J	0.13 J	0.34 J	1.1 U	0.34 J	0.16 J	0.29 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.45	**0.58**	0.45	0.46	0.41	0.42	0.43	0.37	0.36	0.35	0.32	0.49	0.38	0.4	0.45	0.41	0.4	0.47	**0.97**	0.35	0.37	0.42	0.46
Chlorobenzene	ug/m3	200	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	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
Chloroethane	ug/m3	500	0.14	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	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.093 U	0.092 U
Chloroform	ug/m3	0.5	0.15 J	0.17 U	0.17 U	0.37	0.29	**0.53**	**1**	0.13 J	0.41	**0.62**	0.24	0.33	0.21	**0.73**	0.17 U	**0.68**	**2.4**	0.21	**0.86**	0.29	0.19	0.17 U	**4**
Chloromethane	ug/m3	80	2.7	1.7	0.98	1.1	1.3	1.2	0.71	0.8	1.4	1.3	1.1	1.7	0.97	1.4	1.3	1.4	1.3	1.2	1.3	1.6	0.9	1	0.14 U
cis-1,2-Dichloroethene	ug/m3	100	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	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.48	0.14 U	8.5	0.41	0.14 U	0.19	33
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	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	0.16 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
Cyclohexane	ug/m3	NA	0.12 U	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	0.89	0.15	0.12 U	0.12 U	0.12 U	0.3	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	1.7	3.3	1.8	2.6	1.5	2	2.1	1.8	1.4	2.4	1.7	2.4	1.5	0.63	0.95	1.4	2.2	1.9	2.8	1.4	1.6	1.4	0.17 U
Ethanol	ug/m3	NA	380	66	46	89	130	240	140	27	150	220	51	72	110	180	48	320	990	11	12	4.5	22	5.6	32
Ethyl acetate	ug/m3	NA	2	0.39	0.28	13	0.36	0.25	0.35	0.17	0.45	0.49	7.5	0.75	0.13 U	0.39	0.23	1.6	0.39	0.25 U	0.13 U	1.1	0.13 U	0.13 U	1.3 U
Ethylbenzene	ug/m3	290	0.25	0.39	0.17	0.15 U	0.56	0.27	0.14	0.076 J	0.2	0.15	0.16	0.73	0.2	0.16	0.15 U	0.19	0.15 J	0.23	0.52	0.15 U	0.39	0.15 U	0.14 J
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	2.3 J	1.6 J	0.65 J	4.9 J	1.2 J	0.74 J	0.56 J	0.29 J	5	0.44 J	1.1 J	2.4 J	0.4 J	0.47 J	0.27 J	0.39 J	0.4 J	0.67 J	0.91 J	4.9 U	4.9 U	4.9 U	4.9 U
Isopropyl alcohol	ug/m3	NA	3.6	3.4 U	1.7 J	9.7	4.1	3.4 U	4.4	1.5 J	7.3	3.8	5.4	3.4 U	2.3 J	12	1.6 J	14	49	1.8 J	3.4 U	1.1 J	0.8 J	3.4 U	3.4 U
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.92	1.4	0.48	0.25 J	1.6	0.88	0.44	0.31	0.61	0.45	0.32	4	0.59	0.5	0.29 J	0.69	0.41	0.72	1.2	0.3 U	1.3	0.3 U	0.44
Methyl methacrylate	ug/m3	NA	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		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
Methylene chloride	ug/m3	17	3.6	1.5	1.1 J	7.7	0.65 J	0.65 J	0.56 J	0.27 J	0.6 J	0.45 J	0.59 J	1.1 J	0.31 J	0.43 J	0.23 J	0.3 J	0.47 J	0.3 J	0.71 J	0.32 J	0.39 J	0.64 J	1.2 U
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	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	0.13 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
Naphthalene	ug/m3	NA												0.18 U		0.28									
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.33	0.41	0.2	0.14 U	0.64	0.39	0.18	0.14 U	0.21	0.2	0.35	0.41	0.62	0.36	0.14 U	0.26	0.43	0.35	0.56	0.14 U	0.32	0.14 U	0.14 U
o-Xylene	ug/m3	NA	0.33	0.52	0.2	0.15 U	0.66	0.34	0.17	0.088 J	0.25	0.19	0.1 J	0.98	0.23	0.19	0.15 U	0.24	0.17	0.27	0.53	0.15 U	0.46	0.15 U	0.2
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	0.7 J	2.4 U	2.4 U	2.7	1.4 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	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.12 J	0.15 U	0.17	0.15 U	0.2	0.35	0.4	0.15 U	0.18	0.23	0.15 U	0.22	0.15 U	0.25	0.15 U	0.34	0.13 J	0.25	0.15 U	0.15 U	0.15 U	0.15 U	0.29
Tetrachloroethene	ug/m3	5	0.18 J	0.64	0.25	0.24 U	0.28	0.34	0.13	0.32	0.65	0.4	0.41	0.67	0.24 U	0.32	0.33	0.47	1.7	0.3	**48**	3.5	0.24 U	0.59	**620**
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.058 J	0.12	0.09	0.1 U	0.3	0.12	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.12 J	0.12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.4
Toluene	ug/m3	500	1.5	2.8	1.3	1	3.2	1.9	1.6	0.64	1.4	1.3	4.7	3	3.1	1.5	1.3	1.8	1.1	1.5	1.2	0.53	1.3	0.3	0.69
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.28 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	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	0.16 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
Trichloroethene	ug/m3	1	0.053 J	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	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.49	0.19 U	**12**	0.71	0.19 U	0.19 U	**770**
Trichlorofluoromethane	ug/m3	500	1.3	2	1.3	1.6	1.2	1.3	1.3	1.4	1.3	1.5	1.2	2.3	1.2	1	1.3	1.2	1.1	1.3	1.9	1.7	1.1	1.2	130
Trichlorotrifluoroethane	ug/m3	NA	0.7	1.7	0.6	0.57	0.46	0.54	0.56	0.63	0.48 J	0.62 J	0.54 J	0.59 J	0.55 J	0.49 J	0.53 J	0.46 J	0.5 J	0.54 J	1.1 U	0.53 J	1.1 U	0.42 J	1.1 U
Vinyl acetate	ug/m3	NA	0.25 U	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	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.3 J	0.88 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	1	0.09 U	0.09 U	0.09 U	0.089 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Large Retail Space																					
Location:			IA-2			IA-3																		
Sample ID:			IA-2-10292020	IA-2-030821	IA-2	IA-3	IA-3-020309	IA-3-021109	IA-3-021809	IA-3-022609	IA-3-041409	IA-3-042409	IA-3-091709	IA-3-092409	IA-3-100109	IA-3-100809	IA-3-012810	IA-3-020510	IA-3-021210	IA-3-021910	IA-3-032610	IA-3-043010	IA-3-052810	IA-3-070110	IA-3-091610
Sample Date:			10/29/2020	3/8/2021	9/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.37 U	0.44 U																			
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.16 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.45	0.71	0.29	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.21 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	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	ug/m3	12	0.19 U	0.16 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	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.12 U	0.14 U	0.68	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.12 U	0.14 U	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.22 U	0.52 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	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.62	0.15 U	0.23	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	0.25 U	0.39	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.6
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.23 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	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.14 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	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA				0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	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	ug/m3	52	0.2	0.15 U	0.093 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42	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	ug/m3	NA	0.077 U	0.066 U	0.077 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA																							
2-Butanone	ug/m3	500	4.1 U	0.77 J	2.5 J	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	1.9	2	1.2	1.6	0.51	1	2.2	3.3	0.95
2-Hexanone	ug/m3	NA	0.29 U	0.25 U	0.29 U	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	0.2 U	0.37	0.52	0.39	0.22	0.39	0.2 U	0.29	0.52	0.67	0.2 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.15 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	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-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.12 U	2.2	0.2 U	0.2 U	0.29	0.34	0.2 U	0.14 U	0.22	0.2 U	0.42	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.34
Acetone	ug/m3	500	14	4.8	16	18	12	17	24	9.7	7.5	50	11	19	6.7	11	14	21	6.7	7.3	3.8	7.7	15	21	11
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	1.1	0.51	0.45	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	0.46	1.3	0.86	0.67	0.53	0.6	0.67	0.47	0.51	0.72
Benzyl chloride	ug/m3	NA	0.18 U	0.16 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	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.2 U	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 U	0.31 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	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	ug/m3	NA	0.14 U	0.12 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	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	0.93 U	0.37 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	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	ug/m3	0.54	0.37	0.46	0.43	0.34	0.45	0.52	**0.6**	0.43	0.22 U	0.42	0.4	0.43	0.4	0.42	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	**0.57**	0.41
Chlorobenzene	ug/m3	200	0.16 U	0.14 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	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.092 U	0.079 U	0.092 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	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	ug/m3	0.5	0.27	0.097 J	0.21	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	**0.53**	0.48	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**3.7**
Chloromethane	ug/m3	80	0.14 U	0.12 U	1.5	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	0.97	1	1.2	2.9	1.3	1.2	1.1	0.85	1.2	1.2	1.1
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.12 U	0.13 J	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	0.94	0.49	0.59	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.51	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.14 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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.1 U	0.12 U	0.17 U	0.17 U	0.46	0.6	0.17 U	0.15	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	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
Dibromochloromethane	ug/m3	NA	0.3 U	0.26 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	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	2.6	2	2.3	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	2.2	2.2	2.3	2.5	2.5	3	1.6	2.1	2.5	2.7	1.5
Ethanol	ug/m3	NA	16	5	53	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	4.5	5	13	40	17	38	3.6	5.3	5.5	7	8
Ethyl acetate	ug/m3	NA	1.3 U	1.1 U	1.3 U	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.66	0.07 J	0.17	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23	0.22 U	0.24	0.43	0.22 U	0.22 U	0.22 U	0.22 U	0.26	0.23	0.29	0.47
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.32 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	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
Hexane	ug/m3	NA	4.9 U	4.2 U	4.9 U	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47	0.37	0.71	0.55	0.44	1	0.29	0.19	1.4	0.55	0.45	0.58
Isopropyl alcohol	ug/m3	NA	2.5 J	2.9 U	2 J	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9	0.25 U	0.25 U	0.25 U	9.9	0.25 U	2	0.64	3.4	0.12 U	0.76	8.8
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	2	0.2 J	0.55	0.75	0.9	2	2.6	0.65	0.57	0.66	0.7	0.99	0.65	0.87	1.2	0.69	0.43 U	0.43 U	0.46	0.8	0.99	1.3	1.6
Methyl methacrylate	ug/m3	NA	0.14 U	0.12 U	0.61																				
Methylene chloride	ug/m3	17	1.2 U	1.5	0.79 J	2.2	**31**	3.1	3.5	**33**	1.2	3.6	2.4	0.7 U	0.7 U	0.7 U	1.4	0.7 U	2.3	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.57
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.11 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	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA																							
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.51	0.12 U	0.14 U	0.22	0.2 U	0.61	0.77	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.24	0.73	0.2 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.32
o-Xylene	ug/m3	NA	0.79	0.086 J	0.23	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45	0.27	0.34	0.44	0.26	0.22 U	0.22 U	0.22 U	0.32	0.43	0.58	0.64
Propylene (Propene)	ug/m3	NA	2.4 U	2.1 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.15	0.13 U	0.51	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.4	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.23	0.34	0.26
Tetrachloroethene	ug/m3	5	0.72	0.14 J	0.58	**6.1**	0.56	4.3	3.3	1.9	2.2	**7.1**	0.34 U	0.34 U	2	1.1	2.2	0.34 U	0.34 U	1.3	0.34 U	4.8	0.35	1.1	0.76
Tetrahydrofuran	ug/m3	NA	1 U	0.88 U	1 U	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.4	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16	0.24	0.15 U
Toluene	ug/m3	500	4.1	0.45	1.3	1.7	1.5	4.7	5.8	2.1	1	1.2	1.2	1.1	0.73	1.1	2.5	0.78	0.61	0.46	0.81	1.5	0.93	1.1	2.3
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.14 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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	0.23	0.16 U	0.22	**3.9**	0.49	**1.7**	**1.5**	0.53	0.77	**1.8**	0.27 U	0.27 U	**1.1**	0.54	0.75	0.27 U	0.27 U	0.4	0.27 U	**1.5**	0.27 U	0.47	0.27 U
Trichlorofluoromethane	ug/m3	500	1.3	1.1	1.3	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.2	1.3	1.5	2.8
Trichlorotrifluoroethane	ug/m3	NA	0.56 J	0.39 J	0.7 J	0.6	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46	0.49	0.47	0.49	0.52	0.57	0.52	0.57	0.45	0.52	0.54	0.45
Vinyl acetate	ug/m3	NA	2.5 U	2.1 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U
Vinyl chloride	ug/m3	1.9	0.089 U	0.077 U	0.089 U	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	0.13 U	0.13 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																					
		Location:	IA-3																					
		Sample ID:	IA-3-120710	IA-3-021711	IA-3-060211	IA-3-091511	IA-3-120811	IA-3-030812	IA-3-061412	IA-3-091312	IA-3-010313	IA-3-031513	IA-3-060713	IA-3-090613	IA-3-121313	IA-3-030714	IA-3-061314	IA-3-091214	IA-3-121914	IA-03-032715	IA-3-061115	IA-3-091615	IA-3-121815	IA-3-021816	IA-3-080516
		Sample Date:	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1				0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.46	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U		0.44 U	
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.27 U	0.27 U	0.11 J	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	0.16 J	0.05 J	0.19 U	0.092 J	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.069 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	ug/m3	12	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	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 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	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 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	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	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	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.49	0.25 U	0.25 J	0.071 J	0.1 J	0.19	0.47	0.17 U	0.076 J	0.26	0.33	0.17 U	0.53	0.23	0.32	0.12 J	0.12 J	0.13 J	0.13 J	0.17 U	0.17 U	0.26
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.056 J	0.061 U	0.051 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.032 J	0.14 U	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	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	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA																					0.25 U		0.25 U
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U	0.074 J	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.069 J	0.17 U	0.038 J	0.079 J	0.041 J	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	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	0.55	0.078 U	0.044 U	0.078 U	0.045 J	0.078 U	0.062 J	0.17	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.059 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.068 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA				0.18 U																	1.3 U		1.3 U
2-Butanone	ug/m3	500	0.39	0.76 B	2.9 U	5.9 J	1.2 J	0.45 J	2.4 J	2.7 J	4.1 J	2.2 J	2 J	2.9 J	0.66 J	1.1 J	1.5 J	2.1 J	1.1 J	1.4 J	1.5 J	0.96 J	0.99 J	0.8 J	2.3 J
2-Hexanone	ug/m3	NA	0.2 U	0.2 U	4.1 U	0.24	0.093 J	0.12 U	0.33	0.22	0.14 U	0.32	0.28	0.31	0.14 U	0.14 U	0.14 U	0.21	0.14 U	0.27	0.14	0.14 U	0.14 U	0.14 U	0.47
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074 J	0.15 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.051 J	0.059 J	0.086 J	0.045 J	0.066 J	0.17 U	0.17 U	0.17 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.084 J	0.12 U	0.19	0.21	0.14 U	0.14 U	0.19	0.36	0.14 U	0.17	0.35	0.26	0.27	0.15	0.13 J	0.14 U	0.24	0.14 U	0.14 U
Acetone	ug/m3	500	9.7 B	9.7 B	11 B	13	7.2	3.9	13	12 B	3.3	12	28	16	14	11	15	42	29	11	10	15	9.9	8.5	19
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.47	1.4	0.29	0.3	0.39	0.35	0.23	0.66	0.11	0.75	0.23	0.75	0.54	2.4	0.41	0.29	0.5	0.5	0.28	0.43	1.1	0.55	0.62
Benzyl chloride	ug/m3	NA	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	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 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	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	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	0.14 U	0.16	0.099	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.25 J	1.1 U	1.1 U	0.15 J	0.16 J	0.24 J	1.1 U	0.092 J	0.13 J	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.45	**0.6**	**0.64**	0.51	0.5	0.49	0.43	0.38	0.22	0.39	0.42	0.47	0.47	0.45	0.44	0.42	0.34	0.36	0.36	0.39	0.53	0.41	0.43
Chlorobenzene	ug/m3	200	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	0.046 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.098	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 J	0.079 J	0.073 U	0.15	0.19	0.17 U	0.075 J	0.17 U	0.21	0.17 U	0.17 U	0.24	0.28	0.4	0.065 J	0.14 J	0.21	0.28	0.17 U	**0.55**
Chloromethane	ug/m3	80	0.98	0.97	1.2	1.4	0.84	1.1	1.4	1.3	0.072	1.3	1.3	1.1	1	1.3	1.2	0.73	0.85	0.99	1.7	1.1	1.4	0.99	1.4
cis-1,2-Dichloroethene	ug/m3	100	1.7	0.2 U	0.2 U	0.2 U	0.17	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19	0.14 U	0.14 U	0.14 U	0.04 U	0.46	0.14 U	0.14 U	0.11 J	0.15	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.34	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	1	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	0.17	1.8	2.7	1.8	2.7	1.5	2.1	2.2	1.8	1.4	2.3	1.6	2.4	1.6	0.64
Ethanol	ug/m3	NA	2.4	9.4	3.6	5.8	2.1 J	2.2 J	4.4	6.6	2.6	2.5 J	21	27	11	24	64	41	580	8.7	16	25	14	61	21
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.73	0.37	0.51	0.13	0.44	0.28	0.34	2.6	2.5	0.13 U	0.25	0.47	0.27	0.13 U	4.5	0.13 U	1.1	0.13 U
Ethylbenzene	ug/m3	290	0.22 U	0.47	0.36	0.22 J	0.12 J	0.11 J	0.14	0.42	0.15	0.098 J	0.18	0.36	0.15 U	0.55	0.22	0.17	0.14 J	0.13 J	0.12 J	0.15 J	0.41	0.15 U	0.22
Hexachlorobutadiene	ug/m3	NA	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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.35 U	1.5	2.6	7 J	0.35 J	0.37 J	0.74 J	1.4 J	4.9 J	1 J	0.68 J	0.94 J	0.76 J	2.1 J	0.44 J	0.43 J	0.41 J	5.1	0.45 J	0.72 J	1.9 J	0.49 J	0.59 J
Isopropyl alcohol	ug/m3	NA	1.1	1.7	1.2 U	4.9 J	2.9 U	0.56 J	2.9 U	1.7 J	3.4 J	0.62 J	3.4 U	3.4 U	1.9 J	2.1 J	5.2	4.8	7.7	1.9 J	0.87 J	2.1 J	3.4 U	3.4 U	5.4
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.43 U	1.4	0.55	0.54	0.38	0.24 J	0.4	1.5	0.3	0.31	0.72	1.1	0.19 J	1.6	0.84	0.62	0.58	0.37	0.39	0.5	1.7	0.42	0.81
Methyl methacrylate	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 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	0.16	0.14 U	0.14 U		0.14 U		0.14 U	
Methylene chloride	ug/m3	17	0.55	4.6	8	1.7 J	1.5	1.1	1.3	2.7 B	1.2	2.1	1.1 J	1.2	1.3	2.2	0.77 J	0.58 J	0.29 J	2.1	0.54 J	0.73 J	1.2	0.69 J	0.71 J
Methyl-t-butyl ether	ug/m3	190	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	0.13 U	0.072 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3	NA																					0.18 U		0.18 U
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.2 U	0.44	0.2 U	0.2 J	0.074 J	0.12 U	0.11 J	0.41	0.14 U	0.083 J	0.15	0.83	0.14 U	0.65	0.43	0.52	0.14 U	0.13 J	0.19	0.17	0.39	0.2	0.22
o-Xylene	ug/m3	NA	0.22 U	0.48	0.23	0.23	0.13	0.11 J	0.16	0.57	0.15	0.13 J	0.26	0.46	0.15 U	0.62	0.3	0.22	0.18	0.14 J	0.14 J	0.19	0.41	0.17	0.29
Propylene (Propene)	ug/m3	NA	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.3 J	1.8 J	2.4 U	1.1 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	1.8	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.87 J
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.21 U	0.041 J	0.13 U	0.1 J	0.14 J	0.15 U	0.15 U	0.15 U	0.3	0.15 U	0.18	0.16	0.15	0.12 J	0.15 U	0.033 J	0.087 J	0.15 U	0.15 U	0.15 U
Tetrachloroethene	ug/m3	5	3.2	**5.2**	0.34 U	0.47	0.91	0.23	0.16 J	2.3	0.24	0.095 J	0.3	0.24 U	0.24 U	0.24 U	0.3	0.12	1.9	0.24 U	0.26	0.2 J	**13**	0.24 U	0.5
Tetrahydrofuran	ug/m3	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.08 J	0.088 U	0.088 U	0.072 J	0.1 U	0.1 U	0.14	0.73	0.1 U	0.1 U	0.13	0.16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.18
Toluene	ug/m3	500	0.41	2.7	0.58	0.95	1.5	0.27	0.72	2.8	0.13	0.56	0.9	4.6	0.66	3.4	1.8	2.5	1.3	0.63	0.77	1.3	1.6	1	1.2
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 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	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	**1.7**	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.17 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.26	0.19 U	0.075	0.64	0.072 J	0.19 U	0.22	0.64	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.2	1.7	1.6	1.7	1	0.92	1.6	1.5	0.2	1.3	1.5	1.6	1.4	1.7	1.4	1.3	1.3	1	1.7	1.3	1.6	1.2	1
Trichlorotrifluoroethane	ug/m3	NA	0.55	0.67	0.74	0.54	0.69	0.44	0.56	0.54	0.27	0.65	0.65	0.62	0.61	0.51	0.59	0.57	0.63	0.47 J	0.69 J	0.55 J	0.59 J	0.54 J	0.56 J
Vinyl acetate	ug/m3	NA	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	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.13	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.026 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Large Retail Space																							
Location:			IA-3										IA-4													
Sample ID:			IA-3-021017	IA-3-090717	IA-3-022818	IA-3-091218	IA-3-020819	IA-3-090619	IA-3-021420	IA-3-09092020	IA-3-030821	IA-3	IA-4	IA-4-020309	IA-4-021109	IA-4-021809	IA-4-022609	IA-4-041409	IA-4-042409	IA-4-091709	IA-4-092409	IA-4-100109	IA-4-100809	IA-4-012810	IA-4-020510
Sample Date:			2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	1/28/2010	2/5/2010
Analyte	**Units**	**CT IACTIND 2003**																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U														
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.49	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.76
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.55	0.19 U	0.19 U	0.19 U	0.16 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
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.73	0.2 U	0.2 U	0.2 U	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.42	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 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
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.21	0.17 U	0.17 U	0.17 U	0.39	0.17 U	0.17 U	0.15 U	0.24	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)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	**0.72**	0.27 U	0.27 U	0.27 U	0.23 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
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.84 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	**1.3**	0.16 U	0.16 U	0.14 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
1,2-Dichlorotetrafluoroethane	ug/m3	NA											0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.32	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.099 J	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
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.11 U	0.11 U	0.33	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.58 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.62 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA																								
2-Butanone	ug/m3	500	0.62 J	2.5 J	1.2 J	2 J	2.7 J	1.2 J	0.71 J	4.1 U	3.1 J	2.9 J	21	4.4	6	3.2	2.5	1.1	1.6	1.5	2	1.3	1.2	0.3 U	0.69
2-Hexanone	ug/m3	NA	0.14 U	0.31	0.28	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.2 U	0.33	0.73	0.39	0.2 U	0.14 U	0.2 U	0.29	0.45	0.32	0.27	0.2 U	0.2 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.11 J	0.17 U	0.4	0.17 U	0.17 U	0.15 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370																								
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.39	0.086 J	0.47	0.14 U	0.87	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.43	0.28	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	4.9	14	7.9	12	13	8.5	6.7	13	15	16	17	10	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9
Acrylonitrile	ug/m3	NA																								
Benzene	ug/m3	3.3	0.43	0.5	0.51	0.51	0.94	0.48	0.35	0.25	0.6	0.46	1.1	0.68	1.8	3	0.76	0.59	0.44	0.4	0.43	0.37	0.48	0.16 U	0.88
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 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
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.2 U	0.23 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
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.14 U	0.14	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.12 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
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.42	0.39	0.4	0.51	0.22 U	0.37	0.42	0.44	0.15 J	0.43	0.4	0.43	0.5	**0.58**	0.46	0.22 U	0.45	0.41	0.4	0.46	0.4	0.31 U	0.43
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 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
Chloroethane	ug/m3	500	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.13 U	0.13 U	0.41	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.17 U	0.16 J	0.14 J	0.18	0.17 U	0.17 U	0.17 U	0.13 J	0.15	0.16 J	0.24 U	0.24 U	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.46
Chloromethane	ug/m3	80	1.2	1.2	1.2	2.3	1.3	1	1.1	0.14 U	0.12 U	1.2	1.2	0.99	1.4	1.3	1	1.1	1.2	0.9	1.1	1	1	1.3	1.3
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	2.4	0.2 U	1.1	1.1	0.98	0.61	1.7	0.2 U	0.2 U	0.84	0.48	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	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	0.14 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
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.73	0.3 U	0.3 U	0.3 U	0.26 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
Dichlorodifluoromethane	ug/m3	500	0.87	1.4	2.3	2.2	2.3	0.17 U	1.5	0.17 U	0.15 U	2.4	1.9	2.2	2.5	2.8	2.6	2.1	2.4	2.1	2	2.2	2.2	2.4	2.5
Ethanol	ug/m3	NA	2.8	16	94	11	18	24	4.1	80	19	110	5.3	8.9	12	18	8	5.2	5.5	6	6.5	4.9	5.6	7.7	34
Ethyl acetate	ug/m3	NA	0.83	0.22 J	0.15	0.25 U	6	3.4	0.13 U	1.3 U	1.1 U	1.3 U	0.37 U	0.37 U	0.18 U	0.19	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.15 U	0.22	0.088 J	0.34	0.55	0.66	0.15 U	0.15 J	0.11 J	0.21	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
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.32 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	0.53 U	0.53 U
Hexane	ug/m3	NA	0.23 J	0.64 J	0.28 J	0.68 J	4.9 U	0.42 J	4.9 U	1.3 J	4.2 U	4.9 U	0.9	0.66	1.2	1.7	0.66	0.43	0.34	0.42	2.2	0.49	0.93	0.18 U	0.37
Isopropyl alcohol	ug/m3	NA	0.93 J	2.5 J	2.1 J	8	2.7 J	4.6	3.4 U	3.4 U	2.9 U	3 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
Isopropylbenzene	ug/m3	120																								
m,p-Xylene	ug/m3	NA	0.15 J	0.9	0.26 J	1.1	1.3	2.3	0.3 U	0.49	0.31	0.61	0.76	0.89	2.1	2.6	0.89	0.58	0.49	0.61	0.93	0.69	1	0.43 U	0.81
Methyl methacrylate	ug/m3	NA	0.14 U	0.26	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U														
Methylene chloride	ug/m3	17	0.29 J	0.29 J	0.43 J	0.36 J	0.87 J	0.54 J	0.5 J	2.2	4.1	1.1 J	2.3	**29**	1.7	2.5	1.3	1.9	2.2	0.7 U	9.7	0.7 U	0.7 U	1.5	0.7 U
Methyl-t-butyl ether	ug/m3	190	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	0.18 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
Naphthalene	ug/m3	NA																								
n-Butylbenzene	ug/m3	410																								
n-Heptane	ug/m3	NA	0.14 U	0.44	0.13 J	0.38	0.65	0.63	0.14 U	0.14 U	0.12 U	0.32	0.23	0.2 U	0.58	0.79	0.21	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.15 U	0.29	0.11 J	0.43	0.57	0.74	0.15 U	0.2	0.13 J	0.25	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
Propylene (Propene)	ug/m3	NA	0.69 J	1.1 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U
sec-Butylbenzene	ug/m3	410																								
Styrene	ug/m3	290	0.15 U	0.15 U	0.15 U	0.16	0.15 U	0.15 U	0.15 U	0.15 U	0.13 U	0.095 J	0.21 U	0.21 U	0.22	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	0.24 U	0.3	0.16 J	0.3	0.83	0.21 J	0.24 U	0.4	0.28	0.43	**7.3**	0.58	4.4	3.4	3.4	2.4	**7.9**	0.75	0.34 U	2	1.1	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	NA	0.1 U	0.075 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.88 U	1 U	13	1.2	1.3	0.47	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	500	0.43	1.3	0.57	1.7	1.6	7.1	0.26	0.76	0.56	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
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.083 J	0.37 J	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	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	0.14 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
Trichloroethene	ug/m3	1	0.19 U	0.24	0.19 U	0.18 J	0.6	0.2	0.19 U	0.19 U	0.13 J	0.14 J	**4.7**	0.48	**1.7**	**1.5**	0.88	0.78	**2**	0.27 U	0.27 U	**1.1**	0.57	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	500	1.3	1.1	1.1	1.2	1.9	1.2	1.2	1.1	0.99	1.4	2	1.3	1.6	3	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.59 J	0.44 J	0.48 J	1.1 U	1.1 U	1.1 U	0.41 J	1.1 U	0.4 J	0.61 J	0.72	0.59	0.51	0.45	0.57	0.54	0.61	0.49	0.48	0.47	0.5	0.38 U	0.55
Vinyl acetate	ug/m3	NA	2.5 U	0.98 J	2.5 U	1.4 J	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U	0.077 U	0.089 U	0.29	0.13 U	0.2	0.22	0.13 U	0.1 U	0.2	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space																						
		Location:	IA-4																						
		Sample ID:	IA-4-021210	IA-4-021910	IA-4-032610	IA-4-043010	IA-4-052810	IA-4-070110	IA-4-091610	IA-4-120710	IA-4-021711	IA-4-060211	IA-4-091511	IA-4-120811	IA-4-030812	IA-4-061412	IA-4-091312	IA-4-010313	IA-4-031513	IA-4-060713	IA-4-090613	IA-4-121313	IA-4-030714	IA-4-061314	IA-4-091214
		Sample Date:	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1											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
1,1,1-Trichloroethane	ug/m3	500	0.29	0.89	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14 J	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
1,1,2,2-Tetrachloroethane	ug/m3	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	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.069 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 J	0.094 J	0.15 U	0.19	0.38	0.17	0.13 J	0.47	0.2	0.17 U	0.56	0.26	0.17
1,2-Dibromoethane (EDB)	ug/m3	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	0.23 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	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18	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	0.12 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U	0.12 U	0.14 U	0.14	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-Dichloropropane	ug/m3	0.42	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	0.16 U	0.16 U	0.16 U	0.046 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	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 J	0.15 U	0.15 U	0.08 J	0.12 J	0.17	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	ug/m3	NA	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.47	0.11	0.044 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U
1,4-Dioxane	ug/m3	NA											0.18 U												
2-Butanone	ug/m3	500	1.2	0.5	1.6	1.5	2.2	4.8	2.4	0.96	1 B	2.9 U	5.9 J	1 J	1.5 J	0.97 J	2.3 J	4.1	2.3 J	3.9 J	0.95 J	1.2 J	1.1 J	2.9 J	4.6
2-Hexanone	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086 J	0.32	0.098 J	0.18	0.14	0.25	0.51	0.14 U	0.14 U	0.15	0.36	0.2
4-Ethyltoluene	ug/m3	NA	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	0.068 J	0.12 J	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.098 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.2 J	0.098 J	0.15	0.13	0.14 U	0.14	0.28	0.56	0.47	0.16	0.48	1.3	1
Acetone	ug/m3	500	5.9	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	9.1	12 B	3.3	44	36	18	29	29	37	38
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.35	0.23	0.64	0.11	0.82	0.55	0.47	0.56	2.2	0.68	0.39
Benzyl chloride	ug/m3	NA	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	0.18 U	0.18 U	0.18 U	0.052 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U
Bromomethane	ug/m3	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	0.12 U	0.12 U	0.24	0.14 U	0.14 U	0.13 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.31	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 J	0.93 U	0.93 U	0.052 J	1.1 U	1.1	0.52 J	0.38 J	0.39 J	0.15 J	0.19 J	0.62 J	0.46 J
Carbon tetrachloride	ug/m3	0.54	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46	**0.57**	**0.68**	0.52	0.48	0.47	0.43	0.36	0.22	0.41	**0.65**	0.45	0.46	0.45	0.4	0.39
Chlorobenzene	ug/m3	200	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 U
Chloroethane	ug/m3	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	0.079 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
Chloroform	ug/m3	0.5	0.39	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**3.3**	0.24 U	0.24 U	0.24 U	0.24 J	0.085 J	0.073 U	0.13 J	0.19	0.17 U	0.11 J	0.17 U	0.27	0.44	0.46	**0.84**	**1.2**
Chloromethane	ug/m3	80	1.3	1.2	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4	1	1.3	1.3	0.072	1.3	1.6	1	1.1	1.4	1.2	0.89
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.59	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.2 U	0.2 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	ug/m3	NA	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	0.16 U	0.045 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.26	0.12	0.12 U	0.12 U	0.12 U	0.12 U	0.33	0.12 U	0.069 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U
Dichlorodifluoromethane	ug/m3	500	2.6	3	1.7	2.1	2.5	2.6	1.5	2	3.2	1.8	1.7	2.8	2	2.9	2.8	0.17	1.7	3.3	1.8	2.7	1.3	2.1	2.1
Ethanol	ug/m3	NA	17	31	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	2.4	2.5	9.4	7.3	2.6	46	79	71	91	83	240	150
Ethyl acetate	ug/m3	NA	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	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	ug/m3	290	0.22 U	0.22 U	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 J	0.16	0.17	0.14	0.38	0.15	0.32	0.43	0.19	0.15 U	0.57	0.27	0.12
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.21 U
Hexane	ug/m3	NA	1.3	0.49	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7 J	0.35 J	0.55 J	0.47 J	5	4.9	0.89 J	2.8 J	0.53 J	4.9 U	1.3 J	0.75 J	0.58 J
Isopropyl alcohol	ug/m3	NA	0.25 U	1.9	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 J	2.9 U	2.9 U	2.9 U	1.4 J	3.4 J	3.4 U	4	1.6 J	8.4	4.4	3.9	4.8
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.43 U	0.43 U	0.49	0.8	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.41	0.27	0.38	1.2	0.3	1.1	1.6	0.53	0.28 J	1.6	0.86	0.4
Methyl methacrylate	ug/m3	NA								0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.082 U
Methylene chloride	ug/m3	17	1.9	0.71	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 J	1.5	2	0.72 J	12 B	1.2	0.97 J	3.1	0.89 J	0.69 J	0.72 J	0.61 J	0.64 J
Methyl-t-butyl ether	ug/m3	190	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	0.19	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.072 U
Naphthalene	ug/m3	NA																							
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.22	0.32	0.2 U	0.51	0.2 U	0.2 J	0.071 J	0.12 U	0.11 J	0.41	0.14	0.32	0.53	0.16	0.14 U	0.66	0.39	0.17
o-Xylene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.3	0.44	0.5	0.57	0.22 U	0.53	0.22 U	0.22 J	0.15	0.11 J	0.17	0.41	0.15	0.43	0.57	0.23	0.15 U	0.66	0.33	0.16
Propylene (Propene)	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.7 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	3	1.4 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.21 U	0.22	0.29	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.077 J	0.092 J	0.55	0.093 J	0.15	0.099 J	0.15 U	0.15 U	0.15 U	0.23	0.46	0.4
Tetrachloroethene	ug/m3	5	0.34 U	1.4	0.34 U	4.4	0.44	1.1	0.34 U	3.4	5	0.34 U	0.45	1.2	0.31	0.12 J	1.7	0.24 J	0.21 J	0.45	0.3	0.24 U	0.31	0.32	0.23
Tetrahydrofuran	ug/m3	NA	0.15 U	0.15 U	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.076 J	0.088 U	0.055 J	0.1 U	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.094
Toluene	ug/m3	500	0.63	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	0.13	1.5	3	1.4	0.75	3.4	1.9	1.4
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.045 U
Trichloroethene	ug/m3	1	0.27 U	0.4	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 J	0.12 J	0.19 U	0.057 J	0.19 U	0.19 U	0.19 U	0.24	0.19 U	0.054 U
Trichlorofluoromethane	ug/m3	500	1.4	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	0.2	1.2	2.2	1.3	1.5	1.3	1.4	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.58	0.55	1.3	0.48	0.51	0.59	0.43	0.54	0.7	0.71	0.52	0.71	0.44	0.56	0.59	0.27	0.66	1.6	0.65	0.58	0.49	0.54	0.55
Vinyl acetate	ug/m3	NA	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38	0.18 U	3.5 U	0.18 U	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
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.026 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:			Large Retail Space																					
Location:			IA-4																			LRAIR01	LRAIR02	LRAIR03	LRAIR04
Sample ID:			IA-4-121914	IA-04-032715	IA-4-061115	IA-4-091615	IA-4-121815	IA-4-021816	IA-4080516	IA-4-021017	IA-4-090717	IA-4-022818	IA-4-091218	IA-4-020819	IA-4-041119	IA-4-090619	IA-4-021420	IA-4-09092020	IA-4-10292020	IA-4-030821	IA-4	LRAIR01	LRAIR02	LRAIR03	LRAIR04
Sample Date:			12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021	5/15/2009	5/15/2009	5/15/2009	5/15/2009
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	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	0.5 U	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U				
1,1,1-Trichloroethane	ug/m3	500	0.28	0.19 U	0.19 U	0.054 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 J	0.19 U	8	0.78	0.22 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.45	0.52	0.65	0.57
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	0.27 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	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	0.22 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	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	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	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	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.52 U	0.26 U	0.3 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.14 J	0.25	0.2	0.22	0.45	0.24	0.2	0.17 U	0.18	0.36	0.21	0.6	0.17 U	0.27	0.17 U	0.17 U	0.61	0.15 U	0.21	0.25 U	0.25 U	0.25 U	0.29
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	**0.66**	0.27 U	0.31 U	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	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	0.72 J	0.21 U	0.24 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.051 J	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	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	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	0.18 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA					0.25 U		0.25 U													0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.066 J	0.066 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	0.15 U	0.086 J	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.16	0.1	0.078 U	0.078 U	0.093	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.088 U	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	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	0.59 J	0.21 U	0.24 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.08 J	0.063 J	0.12 J	0.084 J	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	0.24 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA					1.3 U		1.3 U																
2-Butanone	ug/m3	500	1.1 J	1.9 J	1.9 J	1.8 J	2.5 J	1.1 J	1.6 J	0.98 J	1.9 J	2.1 J	1.6 J	4.1 U	0.35 J	0.52 J	1.6 J	1.9 J	0.98 J	3.5 U	2.6 J	3.3	3.4	2.1	2.6
2-Hexanone	ug/m3	NA	0.14 U	0.25	0.14 U	0.14 U	0.22	0.14 U	0.14 U	0.14 U	0.35	0.69	0.14 U	0.14 U	0.14 U	0.16 U	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.73	0.66	0.38	0.51
4-Ethyltoluene	ug/m3	NA	0.055 J	0.069 J	0.041 J	0.076 J	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.34	0.89	0.97	1.6	1.5	0.52	0.14 U	0.13 J	2.1	0.6	1.7	0.14 U	0.14 U	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.42	0.39	0.32	0.36
Acetone	ug/m3	500	27	42	28	170 E	28	31	38	11	31	36	11	5	4	5.9	9.3	13	14	6.6	15	12	13	10	11
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.47	0.69	0.36	0.79	1.1	0.54	0.25	0.48	0.58	0.56	0.46	0.84	0.24	0.43	0.37	0.23	1.1	0.5	0.41	0.54	0.6	0.67	0.55
Benzyl chloride	ug/m3	NA	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	0.21 U	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	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	0.27 U	0.24 U	0.23 U	0.23 U	0.2 U	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	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	0.41 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	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	1.6 U	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	0.27 J	0.31 J	0.35 J	0.44 J	0.31 J	0.14 J	0.3 J	1.1 U	0.34 J	0.14 J	0.28 J	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	0.93 U	0.31 J	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.37	0.35	0.31	0.41	0.54	0.36	0.44	0.43	0.38	0.41	0.49	**0.97**	0.44	0.37	0.45	0.47	0.38	0.51	0.42	**0.7**	**0.68**	**0.71**	**0.68**
Chlorobenzene	ug/m3	200	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	0.18 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	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	0.19 U	0.093 U	0.11 U	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	**0.69**	0.39	**1.2**	0.28	0.34	0.24	**0.74**	0.17 U	**0.69**	**1.9**	0.21	0.17 U	0.17 U	0.2 U	0.17 U	0.17 U	0.25	0.091 J	0.18	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	0.97	1.2	1.8	1.2	1.3	1.2	1.3	1.2	1.4	1.3	1.1	1.2	1.1	1.2	1	0.14 U	1	0.12 U	1.5	1	0.98	1	0.95
cis-1,2-Dichloroethene	ug/m3	100	0.87	0.14 U	0.14 U	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.63	0.14 U	9.1	0.53	0.16 U	0.41	0.14 U	0.14 U	0.12 U	0.11 J	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	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	0.18 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	1.3	0.12 U	0.12 U	0.12 U	0.12 U	0.26	0.12 U	0.12 U	0.12 U	0.14 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.7	1.4	2.1	1.7	2.2	1.6	0.61	0.91	1.5	2.4	2.2	2.9	1.4	1.5	1.4	2	2.6	0.15 U	2.5	2.5	2.3	2.6	2.4
Ethanol	ug/m3	NA	260	190	330	57	69	120	2.6 U	47	290	550	11	12	2.9	22	6.7	81	14	5.6	45	65	9	6.5	5.9
Ethyl acetate	ug/m3	NA	0.46	0.69	0.69	9.9	0.6	0.73	1.5	0.31	1.5	0.41	0.25 U	3.5	0.13 U	0.14 U	0.13 U	1.3 U	1.3 U	1.1 U	1.3 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.14 J	0.19	0.16	0.34	0.86	0.17	0.17	0.15 U	0.17	0.15 J	0.26	0.52	0.15 U	0.39	0.15 U	0.15 J	0.63	0.07 J	0.16	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobutadiene	ug/m3	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	0.75 U	0.37 U	0.43 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	0.44 J	5.6	0.45 J	1.6 J	2.5 J	0.42 J	0.81 J	0.3 J	0.35 J	0.36 J	0.71 J	4.9 U	4.9 U	0.28 J	4.9 U	4.9 U	0.85 J	4.2 U	4.9 U	1.1	0.21	0.18 U	0.18
Isopropyl alcohol	ug/m3	NA	8.2	7.1	3.9	7.1	3.4 U	2.7 J	3.4 U	1.5 J	13	27	2 J	2 J	3.4 U	0.87 J	3.4 U	3.4 U	2.6 J	2.9 U	1.9 J	3.3	3.4	3.7	3.5
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	0.56	0.62	0.46	1.1	4.4	0.53	0.53	0.24 J	0.64	0.43	0.78	1.2	0.3 U	1.2	0.3 U	0.44	1.9	0.18 J	0.5	0.58	0.57	0.58	0.55
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U		0.14 U		0.14 U		0.14 U	0.14 U	0.14 U	0.086 J	0.14 U	0.14 U	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U				
Methylene chloride	ug/m3	17	0.29 J	1.5	0.45 J	1.7	0.94 J	0.53 J	0.95 J	0.25 J	0.31 J	0.45 J	0.31 J	0.92 J	0.26 J	0.43 J	0.58 J	0.74 J	1.2	1.2	0.74 J	5.9	1.5	1.5	1.6
Methyl-t-butyl ether	ug/m3	190	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	0.14 U	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA					0.18 U		0.22																
n-Butylbenzene	ug/m3	410																							
n-Heptane	ug/m3	NA	0.11 J	0.22	0.17	0.42	0.49	0.56	0.45	0.14 U	0.22	0.34	0.41	0.14 U	0.14 U	0.56	0.14 U	0.14 U	0.6	0.12 U	0.21	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.17	0.25	0.19	0.4	1.1	0.21	0.2	0.15 U	0.22	0.18	0.3	0.54	0.15 U	0.44	0.15 U	0.18	0.82	0.073 J	0.22	0.28	0.28	0.27	0.27
Propylene (Propene)	ug/m3	NA	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	2.4 U	2.8 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	0.09 U	0.09 U	0.09 U	0.09 U
sec-Butylbenzene	ug/m3	410																							
Styrene	ug/m3	290	0.15 J	0.19	0.38	0.29	0.24	0.15 U	0.3	0.15 U	0.39	0.17	0.28	0.15 U	0.15 U	0.17 U	0.15 U	0.15 U	0.14 J	0.13 U	0.56	0.23	0.21 U	0.21 U	0.22
Tetrachloroethene	ug/m3	5	3.2	0.98	0.36	0.58	0.5	0.24 U	0.36	0.36	0.47	2.1	0.31	**51**	4.5	0.27 U	1.4	0.35	0.74	0.14 J	0.52	0.47	0.47	0.54	0.66
Tetrahydrofuran	ug/m3	NA	0.1 U	0.24	0.11	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 J	0.085 J	0.1 U	0.1 U	0.1 U	0.12 U	0.1 U	1 U	1 U	0.88 U	1 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	500	1.4	1.4	1.2	7.1	3	2.9	1.7	0.96	1.8	1	1.7	1.4	0.33	1.4	0.3	0.69	3.9	0.41	1.1	0.73	0.7	0.58	0.59
trans-1,2-Dichloroethene	ug/m3	200	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	0.45 J	0.14 U	0.16 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	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	0.18 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	**1.2**	0.083 J	0.19 U	0.51	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.64	0.19 U	**13**	0.91	0.21 U	0.42	0.11 J	0.28	0.16 U	0.21	0.27 U	0.28	0.27	0.29
Trichlorofluoromethane	ug/m3	500	1.3	1.4	1.4	1.3	1.6	1.2	1	1.3	1.2	1.1	1.3	1.9	1.6	1.2	1.2	1.1	1.4	1.1	1.3	1.3	1.3	1.2	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.62	0.52 J	0.65 J	0.58 J	0.6 J	0.55 J	0.49 J	0.59 J	0.46 J	0.5 J	0.53 J	1.1 U	0.56 J	0.42 J	0.41 J	0.5 J	0.48 J	0.47 J	0.6 J	0.63	0.6	0.65	0.62
Vinyl acetate	ug/m3	NA	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	1.7 J	0.88 J	2.5 U	2.5 U	2.8 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	0.18 U	0.18 U	0.18 U	0.18 U
Vinyl chloride	ug/m3	1.9	0.072 J	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	1	0.12	0.1 U	0.09 U	0.089 U	0.089 U	0.077 U	0.089 U	0.13 U	0.13 U	0.13 U	0.13 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

		Area:	Large Retail Space					
		Location:	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10
		Sample ID:	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10
		Sample Date:	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009
Analyte	**Units**	**CT IACTIND 2003**						
1,1,1,2-Tetrachloroethane	ug/m3	1.1						
1,1,1-Trichloroethane	ug/m3	500	0.51	0.44	0.69	0.5	0.49	0.53
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA						
2-Butanone	ug/m3	500	2	1.6	3.1	2.5	2.6	1.4
2-Hexanone	ug/m3	NA	0.37	0.38	0.61	0.48	0.43	0.29
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370						
4-Methyl-2-pentanone	ug/m3	200	0.54	0.27	0.32	0.3	0.61	0.23
Acetone	ug/m3	500	8.5	7.7	13	11	9.8	6.9
Acrylonitrile	ug/m3	NA						
Benzene	ug/m3	3.3	0.56	0.51	0.53	0.6	0.51	0.57
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	**0.68**	**0.63**	**0.68**	**0.7**	**0.64**	**0.66**
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	1	1	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.21	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	2.7	2.4	2.4	2.8	2.3	2.7
Ethanol	ug/m3	NA	6	5.6	5.9	14	44	14
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.22 U	0.22 U	0.22 U	0.22 U	0.27	0.22 U
Hexachlorobutadiene	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	0.24	0.18 U	0.19	0.21	0.2	0.18 U
Isopropyl alcohol	ug/m3	NA	3.6	3.4	4.4	3.6	2.8	3.2
Isopropylbenzene	ug/m3	120						
m,p-Xylene	ug/m3	NA	0.49	0.5	0.48	0.53	1	0.5
Methyl methacrylate	ug/m3	NA						
Methylene chloride	ug/m3	17	1.9	1.6	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA						
n-Butylbenzene	ug/m3	410						
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	ug/m3	NA	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
sec-Butylbenzene	ug/m3	410						
Styrene	ug/m3	290	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	0.64	0.6	0.73	0.53	0.46	0.46
Tetrahydrofuran	ug/m3	NA	0.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	500	0.51	0.53	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	0.34	0.27	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	500	1.4	1.3	1.1	1.4	1	1.4
Trichlorotrifluoroethane	ug/m3	NA	0.64	0.57	0.59	0.68	0.62	0.58
Vinyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E1.
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Notes:
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 indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E2

Summary of All Analytical Results –
Extraction Well and Post-Treatment Samples for Large Retail Space

Appendix E2.
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Large Retail Space																						
Location:		EW-1		EW-2		EW-3		EW-4		EW-Combined														
Sample ID:		EW-1-030609	EW-1-033109	EW-2-030609	EW-2-033109	EW-3-030609	EW-3-033109	EW-4-030609	EW-4-033109	EW-Combined-020309	EW-COMBINED-021109	EW-COMBINED-021809	EW-COMBINED-022609	EW-COMBINED-041409	EW-COMBINED-042409	EW-COMBINED-091709	EW-COMBINED-092409	EW-COMBINED-100109	EW-COMBINED-100809	EW-COMBINED-012810	EW-COMBINED-020510	EW-COMBINED-021210	EW-COMBINED-021910	EW-COMBINED-043010	EW-COMBINED-052810
Sample Date:		3/6/2009	3/31/2009	3/6/2009	3/31/2009	3/6/2009	3/31/2009	3/6/2009	3/31/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	4/30/2010	5/28/2010
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3																							
1,1,1-Trichloroethane	ug/m3	59000	66000	26000	30000	54000	72000	11000	14000	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400	1700
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 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
1,1,2-Trichloroethane	ug/m3	6.4	10	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 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
1,1-Dichloroethane	ug/m3	4100	4400	5700	7000	1600	2300	690	1400	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310	200	270
1,1-Dichloroethene	ug/m3	570	1200	330	640	340	560	97	210	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	30	40
1,2,4-Trichlorobenzene	ug/m3	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 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
1,2,4-Trimethylbenzene	ug/m3	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 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
1,2-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U
1,2-Dichloroethane	ug/m3	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U
1,2-Dichloropropane	ug/m3	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 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
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	7 U	7 U	7 U	7 U	7 U	1.8 U	7 U	7 U	7 U	14 U	14 U	7 U	0.35 U	3.5 U	7 U	14 U	14 U	0.7 U	7 U	0.35 U	0.7 U	0.7 U	7 U
1,3,5-Trimethylbenzene	ug/m3	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U
1,3-Butadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	2.2 U	2.2 U	2.2 U	4.4 U	4.4 U	2.2 U	0.11 U	2.3 U	4.5 U	8.9 U	8.9 U	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U	2.2 U
1,3-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U
1,4-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U
1,4-Dioxane	ug/m3																								
2-Butanone	ug/m3	3.5	8.9	12	11	36	10	36	6.4	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9	12	22
2-Hexanone	ug/m3	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	4 U	4 U	8 U	8 U	4 U	0.5	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U
4-Ethyltoluene	ug/m3	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U
4-Methyl-2-pentanone	ug/m3	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	4 U	4 U	8 U	8 U	4 U	0.59	2 U	4 U	8 U	8 U	0.4 U	4 U	0.28	0.4 U	0.4 U	4 U
Acetone	ug/m3	35	16	9.6 U	9.6 U	53	24	26	12	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	0.96 U	16	24
Benzene	ug/m3	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U	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
Benzyl chloride	ug/m3	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	5.2 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
Bromodichloromethane	ug/m3	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	6.6 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
Bromoform	ug/m3	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 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
Bromomethane	ug/m3	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	3.8 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
Carbon disulfide	ug/m3	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U	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
Carbon tetrachloride	ug/m3	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	6.2 U	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
Chlorobenzene	ug/m3	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 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
Chloroethane	ug/m3	170	250	700	590	41	44	17	33	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8	7.2
Chloroform	ug/m3	20	34	9.6	15	13	23	3.6	7.5	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	6	7.9
Chloromethane	ug/m3	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	4 U	4 U	2 U	8.2	1 U	2 U	4 U	4 U	0.2 U	2 U	0.1 U	0.2 U	0.2 U	2 U
cis-1,2-Dichloroethene	ug/m3	2000	2200	6100	7600	610	1200	560	1300	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	180	260
cis-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 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
Cyclohexane	ug/m3	3.4 U	5.7	8.4	8.8	3.4 U	3.4 U	0.85 U	3.4 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
Dibromochloromethane	ug/m3	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 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
Dichlorodifluoromethane	ug/m3	5 U	170	5 U	5 U	5.4	7	2.6	5 U	5 U	5 U	10 U	110	5 U	2.8	2.5 U	5 U	10 U	10 U	2.4	5 U	2.2	2.7	1.7	5 U
Ethanol	ug/m3	33	40	12	8.3	39	1.8 U	8.6	1.8 U	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10	19 U
Ethyl acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U	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
Ethylbenzene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	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
Hexachlorobutadiene	ug/m3	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 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
Hexane	ug/m3	3.6 U	3.6 U	3.6 U	6.6	3.6 U	3.6 U	3.2	3.6 U	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
Isopropyl alcohol	ug/m3	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1	610	2.4 U	15	9.9 U	5 U	0.25 U	22	5 U	9.9 U	9.9 U	2.3	5 U	1	0.5 U	2.6	2.4 U
m,p-Xylene	ug/m3	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U	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
Methyl methacrylate	ug/m3																								
Methylene chloride	ug/m3	7 U	19	7 U	17	7 U	13	19	12	12	7 U	14 U	14 U	19	2.6	7 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U	1.4 U	7 U
Methyl-t-butyl ether	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 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
Naphthalene	ug/m3																								
n-Heptane	ug/m3	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U
o-Xylene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	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
Propylene (Propene)	ug/m3	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.45 U	1.8 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
Styrene	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	1.1 U	4.2 U	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
Tetrachloroethene	ug/m3	600	1200	2300	2500	73	310	31	170	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45	450	1300
Tetrahydrofuran	ug/m3	6.3	21	19	3 U	32	14	37	5.1	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43	34	54
Toluene	ug/m3	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	1.4	3.8 U	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
trans-1,2-Dichloroethene	ug/m3	9.2	23	69	180	4 U	8.8	2.5	8	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1	3	4.6
trans-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 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
Trichloroethene	ug/m3	31000	42000	25000	25000	8600	19000	2700	5500	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460	1200	2000
Trichlorofluoromethane	ug/m3	520	540	1300	1800	430	840	240	370	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230	210	300
Trichlorotrifluoroethane	ug/m3	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	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
Vinyl acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 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
Vinyl chloride	ug/m3	2.7	4.8	9.4	8.1	2.6 U	2.6 U	0.65	2.6 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

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E2.
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Large Retail Space																					
Location:		EW-Combined																					
Sample ID:		EW-COMBINED-070110	EW-COMBINED-091610	EW-COMBINED-120710	EW-COMBINED-021711	EW-COMBINED-091511	EW-Combined-120811	EW-Combined-030812	EW-Combined-061412	EW-Combined-091312	EW-Combined-010313	EW-Combined-031513	EW-Combined-060713	EW-Combined-090613	EW-Combined-121313	EW-Combined-030714	EW-Combined-061314	EW-Combined-091214	EW-Combined-121914	EW-Combined-032715	EW-Combined-061115	EW-Combined-091615	EW-combined-121815	EW-combined-021816	EW-Combined-080516
Sample Date:		7/1/2010	9/16/2010	12/7/2010	2/17/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3					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	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U		2.5 U	
1,1,1-Trichloroethane	ug/m3	2000	4700	280	2500	2400	340	1100	1800	2800	5.5	610	850	1900	1500	780	770	1300	420	500	1200	3400 E	1600	320	4000
1,1,2,2-Tetrachloroethane	ug/m3	0.68 U	0.68 U	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	0.69 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	1.4 U	1.4 U	6.9 U
1,1,2-Trichloroethane	ug/m3	0.54 U	0.55	0.55 U	0.55 U	1.1 U	0.55 U	2.7 U	0.55 U	0.26 J	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	1.1 U	1.1 U	5.5 U
1,1-Dichloroethane	ug/m3	290	330	36	170	200	70	78	130	200	0.4	59	68	150	62	53	68	130	55	49	100	190	69	25	360
1,1-Dichloroethene	ug/m3	52	81	7.3	58	44	21	34	42	15	0.4	24	38	56	24	27	40	52	14	22	46	160	21	9	160
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	0.74 U	3 U	1.5 U	3800	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	1.5 U	0.74 U	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U
1,2,4-Trimethylbenzene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	1.2	4.9 U	0.57	0.24 J	0.49 U	14	0.49 U	0.21	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U
1,2-Dibromoethane (EDB)	ug/m3	0.76 U	0.76 U	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	0.77 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	1.5 U	1.5 U	7.7 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	7.3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	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	0.46 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	0.92 U	0.92 U	4.6 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.7 U	0.7 U																				1.4 U		7 U
1,3,5-Trimethylbenzene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	0.29 J	4.9 U	0.15 J	0.49 U	0.49 U	3.9	0.49 U	0.17 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	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	0.44 U	0.22 U	0.22 U	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	1.1	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.64	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U
1,4-Dioxane	ug/m3					0.72 U																	7.2 U		36 U
2-Butanone	ug/m3	22	10	4.5	4.5 B	24 J	1.3 J	120 U	110	16	12 J	22	5.3 J	7.6	0.97 J	2.5 J	5.1 J	3.3 J	1.4 J	1.2 J	1.2 J	1.3 J	1.5 J	24 U	14 J
2-Hexanone	ug/m3	0.4 U	0.4 U	0.41 U	0.41 U	0.82 J	0.16 J	4.1 U	0.31 J	0.41 U	0.41 U	1.4	0.41 U	0.26	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U
4-Ethyltoluene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	0.27 J	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	0.98 U	0.49 U	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U
4-Methyl-2-pentanone	ug/m3	0.4 U	0.4 U	0.41 U	0.41 U	0.82 U	0.16 J	4.1 U	0.38 J	0.41 U	0.41 U	8.7	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	0.82 U	0.82 U	4.1 U
Acetone	ug/m3	16	6.6	11 B	6.3 B	19 J	6.6 J	22 J	19	14 B	9.5	75	12	11	6.6 J	15	9.8	19 U	6.2 J	6.1 J	9.5 U	12 J	6.7 J	19 U	39 J
Benzene	ug/m3	0.84	1.7	0.5	0.72	0.77	0.56	3.2 U	1	0.96	0.32	5	0.32 U	0.82	0.32 U	0.63	0.66	0.35 J	0.33	0.39	0.36	0.55 J	0.69	0.64 U	3.2 U
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	1 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U	5.2 U
Bromodichloromethane	ug/m3	0.66 U	0.66 U	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	9.1	1.3 U	6.7 U
Bromoform	ug/m3	1.1 U	1.1 U	1 U	1 U	2.1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U
Bromomethane	ug/m3	0.38 U	0.38 U	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	0.39 U	0.14 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	0.78 U	0.78 U	3.9 U
Carbon disulfide	ug/m3	1.1	1.3	0.31 U	0.73	6.2 J	3.1 U	31 U	1.7 J	3.6	3.1 J	0.82 J	3.1 U	0.73 J	3.1 U	3.1 U	0.4 J	0.52 J	0.33 J	0.24 J	0.37 J	1 J	6.2 U	6.2 U	31 U
Carbon tetrachloride	ug/m3	0.73	1.1	0.63 U	0.63	1.3 J	0.48 J	3.1 U	0.5 J	0.74	0.63 U	0.63 U	0.63 U	0.68	0.63 U	0.63 U	0.63 U	0.58 J	0.4 J	0.28 J	0.49 J	0.75 J	1.3 U	1.3 U	6.3 U
Chlorobenzene	ug/m3	0.46 U	0.46 U	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	0.46 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	0.92 U	0.92 U	4.6 U
Chloroethane	ug/m3	9.4	17	1	3.6	6.7	2.1	2.6 U	3	5.3	0.26	1.1	1.4	3.3	1.2	1	1.5	1.8	0.77	0.44	1	2.7	0.93	0.53 U	8.6
Chloroform	ug/m3	8	8.3	1.6	6.9	7.6	2.7	3.2	6.3	8.5	0.49	3.5	2.3	7	1.5	3.1	3.4	4.9	3.4	2.5	6.4	4.1	3.1	1.6	20
Chloromethane	ug/m3	0.2 U	0.2 U	0.21 U	0.21 U	0.41 U	0.21 U	2.1 U	20	0.21 U	0.21 U	0.21 U	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.83 U	0.41 U	0.41 U	0.41 U	0.83 U	15	0.83 U	4.1 U
cis-1,2-Dichloroethene	ug/m3	260	360	28	120	160	38	47	75	150	0.4	30	24	93	12	25	30	57	25	21	52	41	20	12	160
cis-1,3-Dichloropropene	ug/m3	0.44 U	0.44 U	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	0.45 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	0.91 U	0.91 U	0.91 U	4.5 U
Cyclohexane	ug/m3	0.34 U	0.55	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	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U
Dibromochloromethane	ug/m3	0.86 U	0.86 U	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	0.85 U	0.3 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	1.7 U	1.7 U	8.5 U
Dichlorodifluoromethane	ug/m3	2.5	1.6	3	4.1	2.9	2.9	4.9 U	2.9	2.9	0.49	2.5	2.1	11	3.2	2.4	2.1	2.5	2.7	1.8	2.9	2.6	3.2	2.7	5
Ethanol	ug/m3	15	1.9 U	8.2	17	15 J	9.2	75 U	7.2 J	12	7.5	320	34	30	11	38	41	15	12	5.2 J	5.1 J	20	18	9.5 J	140
Ethyl acetate	ug/m3	0.36 U	0.36 U	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	0.72 U	0.72 U	3.6 U
Ethylbenzene	ug/m3	0.44 U	0.58	0.43 U	0.43 U	0.87 U	0.58	4.3 U	0.28 J	0.21 J	0.43 U	13	0.43 U	0.2	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.43 U	0.43 U	0.87 U	0.87 U	0.87 U	4.3 U
Hexachlorobutadiene	ug/m3	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	0.37 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U
Hexane	ug/m3	0.44	0.71 U	0.7 U	0.8	28 U	0.66 J	140 U	0.91 J	1.5 J	14 J	6.8 J	14 U	2.2 J	1.2 J	0.8 J	14 U	28 U	14 U	7.9 J	14 U	1.6 J	28 U	28 U	140 U
Isopropyl alcohol	ug/m3	0.24 U	0.5 U	0.84	0.25 U	20 J	9.8 U	98 U	3.1 J	2.9 J	9.8 U	27	9.8 U	3.4 U	3 J	1.6 J	1.6 J	2.7 J	9.8 U	9.8 U	3.8 J	3.7 J	20 U	20 U	98 U
m,p-Xylene	ug/m3	0.86 U	1.6	0.87 U	0.87 J	1.7 U	1.6	8.7 U	0.51 J	0.59 J	0.87 U	34	0.87 U	0.4	0.87 U	0.57 J	0.95	1.7 U	0.25 J	0.87 U	0.87 U	1.7 U	1.7 U	1.7 U	8.7 U
Methyl methacrylate	ug/m3				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		0.82 U		0.82 U	
Methylene chloride	ug/m3	2.1	0.9	0.78	2.9	6.9 J	2.2 J	8.1 J	2.3 J	2.2 JB	3.5 J	2.4 J	1.3 J	4.6	2.1 J	1.7 J	1.1 J	1.4 J	3.5 U	3.5 U	3.5 U	5.3 J	6.9 U	6.9 U	35 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.24 J	3.6 U	1.1	0.17 J	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	0.72 U	0.72 U	3.6 U
Naphthalene	ug/m3																						1 U		5.2 U
n-Heptane	ug/m3	0.4 U	0.4 U	0.41 U	0.41 U	0.82 U	0.23 J	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	0.82 U	0.82 U	0.82 U	4.1 U
o-Xylene	ug/m3	0.44 U	0.56	0.43 U	0.43 U	0.87 U	0.69	4.3 U	0.28 J	0.25 J	0.43 U	16	0.43 U	0.2	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.43 U	0.43 U	0.87 U	0.87 U	0.87 U	4.3 U
Propylene (Propene)	ug/m3	1.8 U	0.69 U	1.8	1.7 U	14 U	6.9 U	13 J	3.8 J	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	14 U	14 U	8.2 J
Styrene	ug/m3	0.42 U	0.42 U	0.43 U	0.43 U	0.85 J	0.21 J	4.3 U	0.54	0.39 J	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	0.85 U	0.85 U	0.85 U	4.3 U
Tetrachloroethene	ug/m3	640	750	160	920	440	8.1	170	530	910	6.8	60	23	250	7	260	82	230	100	400	1400	63	86	37	870
Tetrahydrofuran	ug/m3	65	31	11	11	21	0.27 J	8.3	3800	110	0.29	4.1	7.2	10	0.79	1.7	4.7	2.9	0.85	1.2	0.65	0.59 U	0.59 U	0.59 U	9.4
Toluene	ug/m3	0.41	3.5	0.38	1.4	0.75 J	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	1.3	0.75 U	6.6
trans-1,2-Dichloroethene	ug/m3	5.5	6.6	0.6	1.9	3.5	1.1	2 U	1.7	1.9	0.4	0.86	0.62	2.6	0.4 U	0.59	0.89	1.4	0.6	0.65	1.1	0.97	0.79 U	0.79 U	4
trans-1,3-Dichloropropene	ug/m3	0.44 U	0.44 U	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	0.45 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	0.91 U	0.91 U	0.91 U	4.5 U
Trichloroethene	ug/m3	1700	3200	240	1800	1900	97	730	1500	2600	5.4	380	280	1200	160	560	560	800	480	490	1300	1200 E	880	200	3200
Trichlorofluoromethane	ug/m3	440	410	71	200	610	200	150	260	100	0.56	130	140	410	200	98	160	360	200	80	170	340	230	93	1200
Trichlorotrifluoroethane	ug/m3	0.76 U	0.76 U	0.77 U	0.77 U	1.5 J	0.89	3.8 U	0.77 U	0.37 J	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	6.1 U	6.1 U	31 U
Vinyl acetate	ug/m3	0.36 U	0.71 U	0.7 U	0.35 U	0.7 U	0.35 U	7 U	1.4	0.7 U	0.7 U	0.7 U	7 U	2.5 U	7 U	7 U	7 U	14 U	7 U	7 U	7 U	14 U	14 U	14 U	70 U
Vinyl chloride	ug/m3	0.26 U	0.4	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	0.26 U	0.09 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.51	0.51 U	0.51 U	2.6 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E2.
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Large Retail Space										Post Treatment - Large Retail Space													
Location:		EW-Combined										PostCarbon													
Sample ID:		EW-Combined-021017	EW-Combined-090717	EW-Combined-022818	EW-Combined-091218	EW-Combined-020819	EW-Combined-090619	EW-Combined-021420	EW-Comb.-09092020	EW-Combined-030821	EW-Combined	Post carbon-020309	POST CARBON-021109	POST CARBON-021809	POST CARBON-022609	POST CARBON-041409	POST CARBON-100809	Post-Carbon-010810	Post-Carbon-121914	Post Carbon-091218	Post Carbon-020819	Post Carbon-090619	Post Carbon-021420	Post Carbon-09092020	Post Carbon-030821
Sample Date:		2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	10/8/2009	1/8/2010	12/19/2014	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021
Analyte	**Units**																								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U								1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	260	530	150	690	62	670	200	470	97	300	1	15	45	1.9	13000	0.56	450	380	740	0.55 U	2.3	2.4	840	730
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	1.4 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U	0.69 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	1.1 U	1.1 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U	0.55 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	25	67	19	73	13	45	19	29	9	34	0.2 U	1 U	5.4	11000	490	370	610	21	80	0.4 U	2.8	17	62	16
1,1-Dichloroethene	ug/m3	11	24	10	27	10	24	10	27	7.4	16	0.2 U	1 U	0.4 U	6400	96	78	87	3.8	30	0.4 U	9.8	9.1	41	9.8
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U	0.74 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.98 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.25 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	8.1	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	1.5 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U	0.77 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	2 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.4 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.46 U	0.92 U	0.46 U	110	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3											0.35 U	1.8 U	0.7 U	0.7 U	70 U	0.35 U	0.35 U							
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.98 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	2.9	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.44 U	0.44 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	2.9	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	1.4 J	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	1.5 J	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3																								
2-Butanone	ug/m3	0.59 J	2.5 J	1.3 J	1.9 J	3.1 J	1.6 J	2 J	8 J	12 U	1.2 J	10	6.3	9.4	5.5	330	1.9	2	2.5 J	0.52 J	12 U	27	1.9 J	12 U	12 U
2-Hexanone	ug/m3	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.2 U	1 U	0.4 U	0.4 U	13000	0.27	0.34	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	9.5	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	5	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.41 U	0.82 U	0.41 U	28	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	3.7 J	8.7 J	19 U	19 U	9.4 J	4.9 J	12	12	9.5 U	9.5 U	1200	11	19	12	430	3.6	5.7	21	19 U	3.5 J	71	10	9.5 U	6.8 J
Benzene	ug/m3	0.33	0.51 J	0.4 J	0.49 J	1.4	0.4	0.33	0.32 U	0.4	0.95	1.3	0.8 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U	0.33	0.55 J	1.2	1.6	0.32 U	0.32 U	0.12 J
Benzyl chloride	ug/m3	0.52 U	1 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U	0.52 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	1.6	1.3 U	1.3 U	1.3 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U	0.67 U	1.3 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	2.1 U	2.1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U	1 U	2.1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	0.78 U	0.78 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U	0.39 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U
Carbon disulfide	ug/m3	3.1 U	6.2 U	6.2 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.16 U	0.8 U	4.1	27	250	0.16 U	0.2	3.1 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Carbon tetrachloride	ug/m3	0.63 U	1.3 U	1.3 U	0.58 J	0.63 U	89	0.63 U	1.1	0.63 U	0.44 J	0.38	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U	0.35 J	1.3 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Chlorobenzene	ug/m3	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.46 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.31	1.3	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.13 U	5100	1800	480	64	19	10	0.26 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	1.5	4.1	1.9	5.1	1.8	3.2	1	4.7	0.6	5	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	6.8	1.2	6.5	1.2	0.49 U	0.49 U	3.7	3
Chloromethane	ug/m3	5.7	0.83 U	0.83 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.59	0.5 U	0.2 U	0.2 U	23	0.1 U	0.1 U	0.41 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	7.3	41	9.5	42	5.8	27	6.4	11	4.6	22	0.27	1 U	3.9	5200	820	230	570	8.7	54	1.2	2.3	9.4	40	17
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.45 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.53	0.69 U	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.93	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	1.7 U	1.7 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	0.85 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	1.3	2.2	2.3	2.2	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.49 U	0.76	4.1	3	2.4	50 U	1.7	1.9	2	2.2	0.49 U	0.49 U	1.6	0.49 U	0.49 U
Ethanol	ug/m3	5.9 J	16	12 J	14 J	25	25	14	18	10	53	740	36	25	9.8	110	0.38 U	2.8	4.7 J	15 U	11	360	6.8 J	6 J	9.7
Ethyl acetate	ug/m3	0.36 U	2.5	0.72 U	1.4 U	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U	0.37 U	0.9 U	0.36 U	0.73 U	73 U	0.18 U	0.18 U	0.36 U	1.4 U	0.36 U	180	0.36 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.43 U	0.87 U	0.87 U	0.87 U	1.1	0.43 U	0.43 U	0.18 J	0.43 U	0.43 U	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.43 U	0.87 U	1.1	33	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U	2.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U	1.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	3	0.9 U	46	0.36 U	36 U	0.18 U	0.23	0.74 J	28 U	14 U	14 U	14 U	14 U	1.4 J
Isopropyl alcohol	ug/m3	0.66 J	1.6 J	20 U	20 U	2.2 J	9.8 U	2.3 J	9.8 U	9.8 U	9.8 U	450	2.9	3.1	47	290	0.25 U	1.4	9.8 U	20 U	9.8 U	230	1.5 J	9.8 U	9.8 U
m,p-Xylene	ug/m3	0.87 U	1.7 U	1.7 U	1.7 U	2.4	1	0.87 U	0.57 J	0.87 U	0.25 J	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	0.87 U	1.7 U	2.4	120	0.87 U	0.87 U	0.87 U
Methyl methacrylate	ug/m3	0.41 U	0.82 U	0.82 U	0.82 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	0.41 U	0.41 U	
Methylene chloride	ug/m3	3.5 U	6.9 U	6.9 U	6.9 U	1.3 J	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	20	76	17	3	810	0.7 U	0.72	0.55 J	6.9 U	1.2 J	10	0.75 J	3.5 U	14
Methyl-t-butyl ether	ug/m3	0.36 U	0.72 U	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.18 U	0.9 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3									0.52 U															0.52 U
n-Heptane	ug/m3	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.8	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.41 U	0.82 U	0.41 U	15	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.43 U	0.87 U	0.87 U	0.87 U	1.1	0.43 U	0.43 U	0.25 J	0.43 U	0.43 U	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.43 U	0.87 U	1.2	36	0.43 U	0.43 U	0.43 U
Propylene (Propene)	ug/m3	1.4 J	14 U	1.5 J	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U	2.1 J	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.43 U	0.85 U	0.85 U	0.85 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.38 J	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U	0.43 U	0.85 U	0.43 U	10	0.43 U	0.43 U	0.43 U
Tetrachloroethene	ug/m3	66	260	66	220	20	110	20	64	17	150	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9	19	3	10	7.7	7	3.1	1.9
Tetrahydrofuran	ug/m3	0.29 U	1.2 U	0.48 J	0.53 J	0.29 U	3.2	0.29 U	8	2.9 U	0.94 J	6.8	22	40	18	210	4.1	6.5	0.35	0.59 U	0.29 U	0.29 U	0.29 U	2.9 U	2.9 U
Toluene	ug/m3	0.36 J	1.3	0.72 J	1.1	2	1.8	0.57	0.7	0.28 J	1.1	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	0.28 J	0.39 J	2.1	340	0.38 U	0.19 J	0.23 J
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.81	0.79 U	0.79 U	1.1 J	0.55	0.4 U	0.4 U	0.4 U	0.58	0.2 U	1 U	0.4 U	28	40 U	7.7	15	0.18 J	1.2	0.93 J	0.78	0.4 U	0.4 U	0.41
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.45 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	180	670	160	800	29	520	100	1100	43	440	2	11	16	2.7	54 U	1	1	250	1600	8.2	11	5.9	1200	600
Trichlorofluoromethane	ug/m3	88	220	67	280	62	230	51	310	36	190	0.71	1.4 U	23	6700	84	180	210	42	280	2.2 J	44	110	230	50
Trichlorotrifluoroethane	ug/m3	3.1 U	6.1 U	6.1 U	0.64 J	3.1 U	3.1 U	1 J	3.1 U	3.1 U	3.1 U	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51	0.74 J	0.64 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Vinyl acetate	ug/m3	0.56 J	14 U	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	0.71 U	0.9 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U	0.8 J	0.49 J	7 U	7 U	7 U	7 U	7 U
Vinyl chloride	ug/m3	0.26 U	0.51 U	0.51 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.13 U	30	13	4.5	26 U	0.13 U	0.13 U	0.26 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021

Appendix E2.
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

	Area:	Post Treatme
	Location:	PostCarbon
	Sample ID:	Post Carbon
	Sample Date:	9/8/2021
Analyte	**Units**	
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U
1,1,1-Trichloroethane	ug/m3	0.55 U
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U
1,1-Dichloroethane	ug/m3	52
1,1-Dichloroethene	ug/m3	37
1,2,4-Trichlorobenzene	ug/m3	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	
1,3,5-Trimethylbenzene	ug/m3	0.49 U
1,3-Butadiene	ug/m3	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U
1,4-Dioxane	ug/m3	
2-Butanone	ug/m3	12 U
2-Hexanone	ug/m3	0.82 U
4-Ethyltoluene	ug/m3	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U
Acetone	ug/m3	9.5 U
Benzene	ug/m3	0.32 U
Benzyl chloride	ug/m3	0.52 U
Bromodichloromethane	ug/m3	0.67 U
Bromoform	ug/m3	1 U
Bromomethane	ug/m3	0.39 U
Carbon disulfide	ug/m3	3.1 U
Carbon tetrachloride	ug/m3	0.63 U
Chlorobenzene	ug/m3	0.46 U
Chloroethane	ug/m3	0.26 U
Chloroform	ug/m3	0.58
Chloromethane	ug/m3	0.41 U
cis-1,2-Dichloroethene	ug/m3	40
cis-1,3-Dichloropropene	ug/m3	0.45 U
Cyclohexane	ug/m3	0.34 U
Dibromochloromethane	ug/m3	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U
Ethanol	ug/m3	2.3 J
Ethyl acetate	ug/m3	3.6 U
Ethylbenzene	ug/m3	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U
Hexane	ug/m3	14 U
Isopropyl alcohol	ug/m3	5.7 J
m,p-Xylene	ug/m3	0.87 U
Methyl methacrylate	ug/m3	0.41 U
Methylene chloride	ug/m3	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U
Naphthalene	ug/m3	
n-Heptane	ug/m3	0.41 U
o-Xylene	ug/m3	0.43 U
Propylene (Propene)	ug/m3	6.9 U
Styrene	ug/m3	0.43 U
Tetrachloroethene	ug/m3	1.2
Tetrahydrofuran	ug/m3	2.9 U
Toluene	ug/m3	0.45
trans-1,2-Dichloroethene	ug/m3	0.86
trans-1,3-Dichloropropene	ug/m3	0.45 U
Trichloroethene	ug/m3	0.63
Trichlorofluoromethane	ug/m3	280
Trichlorotrifluoroethane	ug/m3	3.1 U
Vinyl acetate	ug/m3	7 U
Vinyl chloride	ug/m3	0.26 U

Notes:
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

Prepared By: AKN, 11/4/2021
Checked By: BT, 11/4/2021