WSP USA, Inc.
100 Apollo Drive, 3rd Floor
Chelmsford, MA 01824

May 11, 2023

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
March 2023 Semi-Annual Monitoring
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
WSP Project No. 3652220351

Dear Mr. Martella:

This letter report presents the results of semi-annual compliance sampling and analysis conducted by WSP USA, Inc. (WSP), at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site). The reporting period is from October 2022 through March 2023 which includes one semi-annual compliance indoor air sampling event conducted on March 17, 2023.

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.

Current Monitoring Results

The following provides a discussion of results from sampling conducted on March 17, 2023. The sampling was performed consistent with the requirements of the Orders of Approval. This is the fourteenth 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 for the March 2023 analysis 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 March 2023 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 two vapor extraction wells within those spaces (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 March 17, 2023, 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 this reporting period, all units throughout the building had been vacated in March 2023 just before the sampling event (on March 17, 2023) for future interior renovations. The western small retail space (indoor air sample location IA-6 and IA-7) was formerly utilized as a children's clothing consignment shop. The remaining small retail spaces (indoor air sampling location IA-5) and the large eastern retail spaces have been unoccupied for some time. The property owners, Paolino Properties, communicated with WSP that the retail building would be fully renovated for occupancy by one tenant. Renovations would be contained to the interior of the building and construction would stay in compliance with the ELUR. Following the receipt of the laboratory analytical data and report, WSP validated the data and concluded that all the data reported were representative.

During this reporting period, WSP observed the total VOC concentrations from extraction well monitoring point, EW-6 significantly increased. It is unclear why the concentrations in EW-6 increased; however, WSP personnel indicated that the sampling port valve at EW-6 was not opened until a couple of minutes after the summa canister was connected. This error might have caused a surge or buildup of contaminants to enter the canister once the valve was opened. WSP will compare the March 2023 and September 2023 analytical data from EW-6 after the September 2023 monitoring event to determine if this increase is a result of a decrease in the system's effectiveness.

Analytical results for the small retail spaces are summarized in **Table 2a** (indoor air, two most recent sampling events), and **Table 2b** (extraction wells, small retail, 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 retail spaces are presented in **Table 3**. Based on the analytical data, the mitigation systems appear to be functioning correctly, as no significant changes were readily observed.

The following conclusions are based on site observations and the March 17, 2023, analytical results:

- The indoor air sample results for the March 17, 2023, sampling event in the small retail spaces (sample locations IA-5 through IA-7) are in compliance with TAC action levels.

- The analytical data reported from sample location, EW-6 show a significant increase in concentrations, this might be a result of a sampling error.

- Review of the analytical data and the vacuum monitoring indicates that the mitigation systems in the small retail areas were functioning correctly during the sampling event.

Large Retail Space

The March 2023 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), from one vapor extraction well (EW-5), and from the manifold where air from the four other vapor extraction wells is combined (EW-Combined). The large retail space was unoccupied at the time of the sampling event and has been unoccupied for some time. In addition, one sample of exhaust from the carbon treatment system (Post Carbon) was collected. The sampling locations are shown in **Figure 1**. The sub-slab vacuum monitoring (pressure differential measurements) was conducted on March 17, 2023, at locations VMW-1 through VMW-4 in conjunction with the air sampling program. Vacuum readings collected from the extraction wells VMW-1, VMW-2 and VMW-4 were not consistent with historic readings, which might be a result of a calibration error with the manometer. Nevertheless, based on the analytical data, which show that indoor air concentrations are in compliance with TAC action levels, the mitigation system appears to be functioning correctly.

Analytical results for the large retail spaces are summarized in **Table 4a** (indoor air, two most recent sampling events for IA-1, IA-2, IA-3, and IA-4) and **Table 4b** (extraction well EW-5, EW-Combined, 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 March 17, 2023, sampling event in the large retail spaces (sample locations IA-1 through IA-4) are in compliance with TAC action levels.
- Review of the analytical data indicates that 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 concentrations of total VOCs are lower than the total VOC concentrations in the previous sampling rounds from September 2019 through September 2022. WSP 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

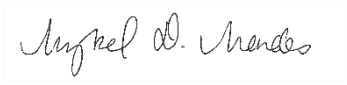
The ASD system performance is monitored monthly by Clean Harbors Environmental Services. There were no system shutdowns reported to WSP during the reporting period.

Next Reporting Period

The next Semi-Annual Report will cover the monitoring period from April 2023 through September 2023. The report will be prepared and submitted to the Rhode Island Department of Environmental Management in the fall of 2023.

Please contact Makala Fioritto, Textron, (401-457-6009) or Mykel Mendes, WSP, (951-312-8756) if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
WSP USA, Inc.



Mykel Mendes
Project Manager

Jane Parkin Kullmann, PhD, CPH
Lead Consultant - Risk Assessor

Attachments:

Table 1.	Summary of Analytical Results - Outdoor Air Reference Sampling
Table 2a.	Summary of Analytical Results – Indoor Air Sampling for Small Retail Space
Table 2b.	Summary of Analytical Results – Extraction Wells (Small Retail)
Table 3.	Vacuum Monitoring Results – Small Retail Spaces
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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 Sampling for Small Retail Space
Appendix D2.	Summary of Analytical Results – Small Extraction Wells
Appendix E1.	Summary of All Analytical Results – Indoor Air Sampling 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)
M. Fioritto, Textron, Inc. (Electronic)
G. Simpson, Textron, Inc. (Electronic)
Knight Memorial Library Repository
Shane Brackett, Paolino Properties (including tenants)

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	AA-1
	Sample Date:	9/15/2022	3/17/2023
Analyte	**Units**		
1,1,1,2-Tetrachloroethane	ug/m3	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	0.51	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	0.17 U	0.15 J
1,2-Dibromoethane (EDB)	ug/m3	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	0.17 U	0.17 U
1,3-Butadiene	ug/m3	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.21 U
2-Butanone	ug/m3	1.6 J	4.1 U
2-Hexanone	ug/m3	0.14 U	0.17
4-Ethyltoluene	ug/m3	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.14 U
Acetone	ug/m3	8.3	6.7
Benzene	ug/m3	0.15	0.37
Benzyl chloride	ug/m3	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.23 U	0.24 U
Bromoform	ug/m3	0.36 U	0.36 U
Bromomethane	ug/m3	0.14 U	0.14 U
Carbon Disulfide	ug/m3	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.61	0.45
Chlorobenzene	ug/m3	0.16 U	0.16 U
Chloroethane	ug/m3	0.092 U	0.093 U
Chloroform	ug/m3	0.17 U	0.17 U
Chloromethane	ug/m3	1.2	0.97
cis-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U
Cyclohexane	ug/m3	0.12 U	0.12 U
Dibromochloromethane	ug/m3	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	2.5	1.1
Ethanol	ug/m3	5.5	4.5
Ethyl Acetate	ug/m3	1.3 U	1.7
Ethylbenzene	ug/m3	0.15 U	0.15 U
Hexachlorobutadiene	ug/m3	0.37 U	0.37 U
Hexane	ug/m3	0.96 J	4.9 U
Isopropyl alcohol	ug/m3	3.4 U	3.4 U
m,p-Xylene	ug/m3	0.3 U	0.3 U
Methyl methacrylate	ug/m3	0.14 U	0.14 U
Methylene Chloride	ug/m3	1.2 U	1.2 U
Methyl-t-butyl ether	ug/m3	0.13 U	0.13 U
n-Heptane	ug/m3	0.14 U	0.14 U
o-Xylene	ug/m3	0.15 U	0.15 U
Propylene (Propene)	ug/m3	2.4 U	2.4 U
Styrene	ug/m3	0.15 U	0.15 U
Tetrachloroethene	ug/m3	0.24 U	0.24 U
Tetrahydrofuran	ug/m3	0.49 J	1 U
Toluene	ug/m3	0.29	0.23
Total VOCs	ug/m3	24.13	17.88
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U
Trichloroethene	ug/m3	0.2	0.19 U
Trichlorofluoromethane	ug/m3	1.3	1.1
Trichlorotrifluoroethane	ug/m3	0.52 J	0.44 J
Vinyl Acetate	ug/m3	2.5 U	2.5 U
Vinyl Chloride	ug/m3	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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	IA-5	IA-6	IA-6	IA-7	IA-7
		Sample Date:	9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023
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
1,1,1-Trichloroethane	ug/m3	500	0.19 U	5.4	0.18 J	4.6	0.21	0.44
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
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
1,1-Dichloroethane	ug/m3	430	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
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
1,2,4-Trimethylbenzene	ug/m3	52	0.15 J	0.083 J	0.17 U	0.13 J	0.099 J	0.12 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
1,2-Dichlorobenzene	ug/m3	410	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 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
1,3-Butadiene	ug/m3	NA	0.077 U	0.078 U	0.077 U	0.078 U	0.077 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	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.2 J	0.21 U	0.18 J	0.21 U	0.16 J	0.21 U
2-Butanone	ug/m3	500	1.2 J	4.1 U	1.1 J	1.1 J	2.1 J	2.2 J
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.16	0.14 U	0.24
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	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	0.089 J	0.29	0.37
Acetone	ug/m3	500	19	7.2	14	10	17	23
Benzene	ug/m3	3.3	0.25	0.52	0.23	0.53	0.18	0.56
Benzyl chloride	ug/m3	NA	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.24 U	0.23 U	0.24 U	0.23 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
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	1.1 U	0.14 J	1.1 U	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.48	0.35	0.51	0.46	0.53	0.45
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	80	1.2	1.1	1.1	1.1	1.1	1
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
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
Cyclohexane	ug/m3	NA	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
Dichlorodifluoromethane	ug/m3	500	2.6	1.2	2.5	1.1	2.5	1.1
Ethanol	ug/m3	NA	270	9.9	300	13	430	21
Ethyl Acetate	ug/m3	NA	1.9	1.3 U	1.3 U	1.3 U	1.3 U	1.2 J
Ethylbenzene	ug/m3	290	0.15 J	0.15 U	0.14 J	0.1 J	0.12 J	0.11 J
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	2.5 J	4.9 U	1 J	4.9 U	1 J	4.9 U
Isopropyl alcohol	ug/m3	NA	5.1	2.3 J	2.6 J	1.4 J	3.4 U	1.6 J
m,p-Xylene	ug/m3	NA	0.45	0.24 J	0.4	0.27 J	0.35	0.32
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.79 J	1.2 U	1.2 U	1.2 U	1.2 U	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
n-Heptane	ug/m3	NA	0.29	0.13 J	0.26	0.15	0.14 U	0.14
o-Xylene	ug/m3	NA	0.24	0.11 J	0.19	0.13 J	0.15	0.14 J
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 J	0.15 U	0.16	0.15 U	0.11 J	0.15 U
Tetrachloroethene	ug/m3	5	0.42	0.38	0.31	0.41	0.24 U	0.49
Tetrahydrofuran	ug/m3	NA	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/m3	500	1.2	0.54	1.3	0.6	0.6	0.71
Total VOCs	ug/m3	NA	310.23	32.443	328.14	39.039	458.249	58.64
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
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
Trichloroethene	ug/m3	1	0.19 U	0.34	0.19 U	0.49	0.19 U	0.23
Trichlorofluoromethane	ug/m3	500	1.5	2.2	1.4	1.8	1.3	1.5
Trichlorotrifluoroethane	ug/m3	NA	0.46 J	0.45 J	0.44 J	0.42 J	0.45 J	0.42 J
Vinyl Acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	1 J	2.5 U	1.3 J
Vinyl Chloride	ug/m3	1.9	0.089 U	0.09 U	0.089 U	0.09 U	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Center Small		Extraction Well - Western Small	
Location:		EW-6		EW-7	
Sample ID:		EW-6	EW-6	EW-7	EW-7
Sample Date:		9/15/2022	3/17/2023	9/15/2022	3/17/2023
Analyte	**Units**				
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	37 U	1.2 U	2.5 U
1,1,1-Trichloroethane	ug/m3	1300	19000	51	42
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	21 U	0.69 U	1.4 U
1,1,2-Trichloroethane	ug/m3	0.55 U	16 U	0.55 U	1.1 U
1,1-Dichloroethane	ug/m3	21	350	6.2	1.8
1,1-Dichloroethene	ug/m3	15	290	0.4 U	0.79 U
1,2,4-Trichlorobenzene	ug/m3	0.74 U	22 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	15 U	0.49 U	0.98 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	23 U	0.77 U	1.5 U
1,2-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	1.2 U
1,2-Dichloroethane	ug/m3	0.4 U	12 U	0.4 U	0.81 U
1,2-Dichloropropane	ug/m3	0.46 U	14 U	0.46 U	0.92 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	15 U	0.49 U	0.98 U
1,3-Butadiene	ug/m3	0.22 U	6.6 U	0.22 U	0.44 U
1,3-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	1.2 U
1,4-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	1.2 U
2-Butanone	ug/m3	70	350 U	5.1 J	24 U
2-Hexanone	ug/m3	0.41 U	12 U	0.41 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	15 U	0.49 U	0.98 U
4-Methyl-2-pentanone	ug/m3	0.41 U	12 U	0.41 U	0.82 U
Acetone	ug/m3	43	290 U	9.5	19 U
Benzene	ug/m3	1.5	9.6 U	0.89	0.87
Benzyl chloride	ug/m3	1 U	16 U	1 U	1 U
Bromodichloromethane	ug/m3	0.67 U	20 U	0.67 U	1.3 U
Bromoform	ug/m3	1 U	31 U	1 U	2.1 U
Bromomethane	ug/m3	0.39 U	12 U	0.39 U	0.78 U
Carbon Disulfide	ug/m3	3.3	93 U	3.1 U	14
Carbon Tetrachloride	ug/m3	0.63 U	19 U	0.52 J	1.3 U
Chlorobenzene	ug/m3	0.46 U	14 U	0.46 U	0.92 U
Chloroethane	ug/m3	0.26 U	7.9 U	0.26 U	0.53 U
Chloroform	ug/m3	1.2	15 U	2	1.9
Chloromethane	ug/m3	0.41 U	12 U	0.41 U	0.83 U
cis-1,2-Dichloroethene	ug/m3	6.1	29	2.8	0.79 U
cis-1,3-Dichloropropene	ug/m3	0.45 U	14 U	0.45 U	0.91 U
Cyclohexane	ug/m3	0.34 U	10 U	0.34 U	0.69 U
Dibromochloromethane	ug/m3	0.85 U	26 U	0.85 U	1.7 U
Dichlorodifluoromethane	ug/m3	0.49 U	15 U	0.49 U	1.9
Ethanol	ug/m3	170	230 U	130	9.9 J
Ethyl Acetate	ug/m3	3.6 U	110 U	3.6 U	7.2 U
Ethylbenzene	ug/m3	0.43 U	13 U	0.43 U	0.87 U
Hexachlorobutadiene	ug/m3	1.1 U	32 U	1.1 U	2.1 U
Hexane	ug/m3	14 U	420 U	14 U	28 U
Isopropyl alcohol	ug/m3	6.2 J	290 U	9.8 U	20 U
m,p-Xylene	ug/m3	0.87 U	26 U	0.51 J	1.7 U
Methyl methacrylate	ug/m3	0.41 U	12 U	0.41 U	0.82 U
Methylene Chloride	ug/m3	3.5 U	100 U	3.5 U	6.9 U
Methyl-t-butyl ether	ug/m3	0.36 U	11 U	0.36 U	0.72 U
n-Heptane	ug/m3	0.41 U	12 U	0.41 U	0.82 U
o-Xylene	ug/m3	0.43 U	13 U	0.43 U	0.87 U
Propylene (Propene)	ug/m3	6.9 U	210 U	6.9 U	14 U
Styrene	ug/m3	0.43 U	13 U	0.43 U	0.85 U
Tetrachloroethene	ug/m3	110	240	60	220
Tetrahydrofuran	ug/m3	53	88 U	3	73
Toluene	ug/m3	1.3	11 U	1	0.48 J
Total VOCs	ug/m3	2508.5	26909	1219.02	1097.7
trans-1,2-Dichloroethene	ug/m3	6.9	12 U	5.5	1.3
trans-1,3-Dichloropropene	ug/m3	0.45 U	14 U	0.45 U	0.91 U
Trichloroethene	ug/m3	410	5700	190	160
Trichlorofluoromethane	ug/m3	290	1300	750	570
Trichlorotrifluoroethane	ug/m3	3.1 U	92 U	1 J	6.1 U
Vinyl Acetate	ug/m3	7 U	210 U	7 U	14 U
Vinyl Chloride	ug/m3	0.26 U	7.7 U	0.26 U	0.55

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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
3/29/2022	-0.016	-0.041	-0.021
9/15/2022****	NM	NM	NM
3/17/2023	-0.035	-0.029	-0.016

** 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.
**** The manometer instrument was not working properly and vacuum measurements were not collected.

Prepared by/Date: RT 03/21/2023
Checked by/Date: MDM 04/21/2023

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	IA-1	IA-2	IA-2	IA-3	IA-3	IA-4	IA-4
		Sample Date:	9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023
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
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.73	0.19 U	0.19 U	0.19 U	0.64	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	0.24 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	0.19 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
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
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
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.21	0.17 U	0.086 J	0.17 U	0.21	0.17 U	0.09 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	0.27 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	0.21 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	0.14 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
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	0.17 U
1,3-Butadiene	ug/m3	NA	0.077 U	0.078 U	0.077 U	0.078 U	0.077 U	0.078 U	0.077 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	0.21 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	0.21 U
2-Butanone	ug/m3	500	4.1 U	4.1 U	1.5 J	4.1 U	4.1 U	2.5 J	2 J	4.1 U
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.14 U	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.11 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.27	0.089 J	0.37	0.14 U	0.21	0.18	0.59	0.1 J
Acetone	ug/m3	500	12	8.9	10	6.6	9.3	15	11	5.8
Benzene	ug/m3	3.3	0.24	1	0.13	0.46	0.17	1.1	0.12	0.48
Benzyl chloride	ug/m3	NA	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.24 U	0.23 U	0.24 U	0.23 U	0.24 U	0.23 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
Bromomethane	ug/m3	NA	0.095 J	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	0.14 J	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	0.5	0.45	0.48	0.43	0.41	0.22 U	0.5	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	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	80	1.5	1	1	1	1.2	1	1	0.99
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
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
Cyclohexane	ug/m3	NA	0.12 U	0.14	0.12 U	0.12 U	0.12 U	0.16	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	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.6	1.1	2.6	1.1	2.6	1.2	2.5	1.1
Ethanol	ug/m3	NA	30	12	4.9	10	16	15	9.1	9.2
Ethyl Acetate	ug/m3	NA	0.83 J	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Ethylbenzene	ug/m3	290	0.097 J	0.21	0.15 U	0.15 U	0.15 U	0.23	0.15 U	0.15 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
Hexane	ug/m3	NA	1.8 J	0.72 J	4.9 U	4.9 U	1.2 J	0.82 J	0.97 J	4.9 U
Isopropyl alcohol	ug/m3	NA	1.8 J	2.2 J	0.65 J	0.79 J	0.91 J	2.2 J	0.84 J	0.65 J
m,p-Xylene	ug/m3	NA	0.32	0.63	0.3 U	0.3 U	0.23 J	0.71	0.21 J	0.21 J
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.59 J	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	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	0.13 U
n-Heptane	ug/m3	NA	0.11 J	0.26	0.14 U	0.1 J	0.13 J	0.32	0.14 U	0.12 J
o-Xylene	ug/m3	NA	0.11 J	0.23	0.15 U	0.082 J	0.11 J	0.29	0.094 J	0.091 J
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
Styrene	ug/m3	290	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Tetrachloroethene	ug/m3	5	0.24 U	0.5	0.24 U	0.42	0.24 U	0.51	0.24 U	0.46
Tetrahydrofuran	ug/m3	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/m3	500	0.42	1.4	0.29	0.39	0.39	1.7	0.32	0.48
Total VOCs	ug/m3	NA	55.302	33.889	23.7	22.998	34.69	46.07	31.124	21.731
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
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
Trichloroethene	ug/m3	1	0.19 U	0.16 J	0.19 U	0.19 U	0.19 U	0.21	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.4	1.4	1.3	1.1	1.3	1.3	1.3	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.48 J	0.45 J	0.48 J	0.44 J	0.53 J	0.44 J	0.58 J	0.42 J
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
Vinyl Chloride	ug/m3	1.9	0.089 U	0.09 U	0.089 U	0.09 U	0.089 U	0.09 U	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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 Space				Post Treatment - Large Retail	
Location:		EW-5		EW-Combined		PostCarbon	
Sample ID:		EW-5	EW-5	EW-Combined	EW-Combined	Post Carbon	Post Carbon
Sample Date:		9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023
Analyte	**Units**						
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	37 U	1.2 U	2.5 U	1.2 U	2.5 U
1,1,1-Trichloroethane	ug/m3	4200	20000	42	2.1	0.55 U	1.1 U
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	21 U	0.69 U	1.4 U	0.69 U	1.4 U
1,1,2-Trichloroethane	ug/m3	1.1 U	16 U	0.55 U	1.1 U	0.55 U	1.1 U
1,1-Dichloroethane	ug/m3	130	860	3.2	0.81 U	18	6.5
1,1-Dichloroethene	ug/m3	77	430	2.1	0.79 U	8.1	3
1,2,4-Trichlorobenzene	ug/m3	1.5 U	22 U	0.74 U	1.5 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.98 U	15 U	0.49 U	0.98 U	0.49 U	0.98 U
1,2-Dibromoethane (EDB)	ug/m3	1.5 U	23 U	0.77 U	1.5 U	0.77 U	1.5 U
1,2-Dichlorobenzene	ug/m3	1.2 U	18 U	0.6 U	1.2 U	0.6 U	1.2 U
1,2-Dichloroethane	ug/m3	0.81 U	12 U	0.4 U	0.81 U	0.4 U	0.81 U
1,2-Dichloropropane	ug/m3	0.92 U	14 U	0.46 U	0.92 U	0.46 U	0.92 U
1,3,5-Trimethylbenzene	ug/m3	0.98 U	15 U	0.49 U	0.98 U	0.49 U	0.98 U
1,3-Butadiene	ug/m3	0.44 U	6.6 U	0.22 U	0.44 U	0.22 U	0.44 U
1,3-Dichlorobenzene	ug/m3	1.2 U	18 U	0.6 U	1.2 U	0.6 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	18 U	0.6 U	1.2 U	0.6 U	1.2 U
2-Butanone	ug/m3	5300	350 U	19	24 U	12 U	24 U
2-Hexanone	ug/m3	0.82 U	12 U	0.41 U	0.82 U	0.41 U	0.82 U
4-Ethyltoluene	ug/m3	0.98 U	15 U	0.49 U	0.98 U	0.49 U	0.98 U
4-Methyl-2-pentanone	ug/m3	0.82 U	12 U	0.41 U	0.82 U	0.41 U	0.82 U
Acetone	ug/m3	1100	290 U	17	13 J	9.5 U	19 U
Benzene	ug/m3	2	9.6 U	0.32 U	0.64 U	0.32 U	0.64 U
Benzyl chloride	ug/m3	2.1 U	16 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/m3	1.3 U	20 U	0.67 U	1.3 U	0.67 U	1.3 U
Bromoform	ug/m3	2.1 U	31 U	1 U	2.1 U	1 U	2.1 U
Bromomethane	ug/m3	0.78 U	12 U	0.39 U	0.78 U	0.39 U	0.78 U
Carbon Disulfide	ug/m3	270	27 J	0.69 J	6.2 U	3.1 U	6.2 U
Carbon Tetrachloride	ug/m3	1.3 U	19 U	0.63 U	1.3 U	0.63 U	1.3 U
Chlorobenzene	ug/m3	0.92 U	14 U	0.46 U	0.92 U	0.46 U	0.92 U
Chloroethane	ug/m3	3.2	7.9 U	0.26 U	0.53 U	0.26 U	0.53 U
Chloroform	ug/m3	4.7	15 U	0.49 U	0.98 U	0.9	0.98 U
Chloromethane	ug/m3	0.83 U	12 U	2	1.2	0.41 U	0.83 U
cis-1,2-Dichloroethene	ug/m3	8.1	20	0.47	0.79 U	10	3.3
cis-1,3-Dichloropropene	ug/m3	0.91 U	14 U	0.45 U	0.91 U	0.45 U	0.91 U
Cyclohexane	ug/m3	0.69 U	10 U	0.34 U	0.69 U	0.34 U	0.69 U
Dibromochloromethane	ug/m3	1.7 U	26 U	0.85 U	1.7 U	0.85 U	1.7 U
Dichlorodifluoromethane	ug/m3	0.99 U	15 U	2.4	1.9	0.49 U	0.99 U
Ethanol	ug/m3	27	230 U	18	9.5 J	6 J	12 J
Ethyl Acetate	ug/m3	7.2 U	110 U	3.6 U	7.2 U	3.6 U	7.2 U
Ethylbenzene	ug/m3	0.87 U	13 U	0.43 U	0.87 U	0.43 U	0.87 U
Hexachlorobutadiene	ug/m3	2.1 U	32 U	1.1 U	2.1 U	1.1 U	2.1 U
Hexane	ug/m3	28 U	420 U	3.2 J	28 U	14 U	28 U
Isopropyl alcohol	ug/m3	9.1 J	290 U	9.8 U	20 U	9.8 U	20 U
m,p-Xylene	ug/m3	1.7 U	26 U	0.87 U	1.7 U	0.87 U	1.7 U
Methyl methacrylate	ug/m3	0.82 U	12 U	0.41 U	0.82 U	0.41 U	0.82 U
Methylene Chloride	ug/m3	6.9 U	100 U	3.5 U	6.9 U	3.5 U	6.9 U
Methyl-t-butyl ether	ug/m3	0.72 U	11 U	0.36 U	0.72 U	0.36 U	0.72 U
n-Heptane	ug/m3	0.82 U	12 U	0.41 U	0.82 U	0.41 U	0.82 U
o-Xylene	ug/m3	0.87 U	13 U	0.43 U	0.87 U	0.43 U	0.87 U
Propylene (Propene)	ug/m3	14 U	210 U	6.9 U	14 U	6.9 U	14 U
Styrene	ug/m3	0.85 U	13 U	0.43 U	0.85 U	0.43 U	0.85 U
Tetrachloroethene	ug/m3	29	200	1.1	1.4 U	0.68 U	1.4 U
Tetrahydrofuran	ug/m3	4200	360	17	5.9 U	2.9 U	5.9 U
Toluene	ug/m3	0.74 J	11 U	0.41	0.75 U	0.52	0.75 U
Total VOCs	ug/m3	16743.24	34097	152.37	30.33	116.52	54.8
trans-1,2-Dichloroethene	ug/m3	0.79 U	12 U	0.4 U	0.79 U	0.4 U	0.79 U
trans-1,3-Dichloropropene	ug/m3	0.91 U	14 U	0.45 U	0.91 U	0.45 U	0.91 U
Trichloroethene	ug/m3	1100	11000	15	0.73 J	0.54 U	1.1 U
Trichlorofluoromethane	ug/m3	280	1200	8.8	1.9 J	73	30
Trichlorotrifluoroethane	ug/m3	6.1 U	92 U	3.1 U	6.1 U	3.1 U	6.1 U
Vinyl Acetate	ug/m3	14 U	210 U	7 U	14 U	7 U	14 U
Vinyl Chloride	ug/m3	2.4	7.7 U	0.26 U	0.51 U	0.26 U	0.51 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

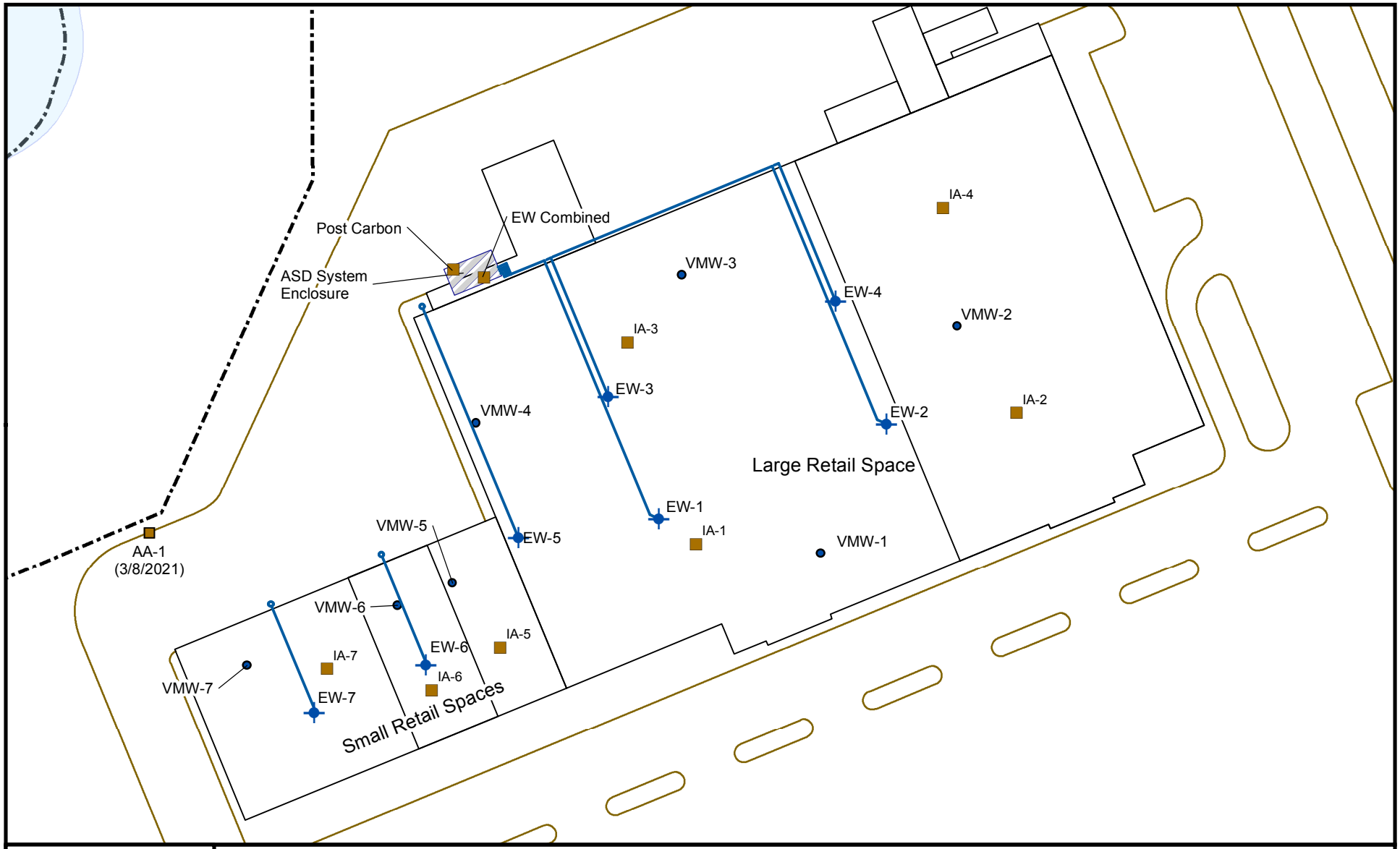
Table 5
Vacuum Monitoring Results - Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

	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
3/29/2022	-0.05	-1.032	-0.183	-0.047
9/15/2022****	NM	NM	NM	NM
3/17/2023	+0.041	+0.038	-0.059	+0.019

* 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
****The manometer instrument was not working properly and vacuum measurements were not collected.

Prepared by/Date:RT 03/21/2023
Checked by/Date: MDM 04/21/2023

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

May 1, 2023

Mykel Mendes
WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824

Project Location: Providence, RI
Client Job Number:
Project Number: 3652210306.0005 GL Code 573000 ORG Code 3652
Laboratory Work Order Number: 23C2112

Enclosed are results of analyses for samples as received by the laboratory on March 20, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

QA Officer
Katherine Allen

Laboratory Manager
Daren Damboragian

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WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
ATTN: Mykel Mendes

REPORT DATE: 5/1/2023

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 3652210306.0005 GL Code 573000 ORG Code 1

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23C2112

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	23C2112-01	Indoor air		EPA TO-15	
IA-2	23C2112-02	Indoor air		EPA TO-15	
IA-3	23C2112-03	Indoor air		EPA TO-15	
IA-4	23C2112-04	Indoor air		-	
				EPA TO-15	
IA-5	23C2112-05	Indoor air		-	
				EPA TO-15	
IA-6	23C2112-06	Indoor air		-	
				EPA TO-15	
IA-7	23C2112-07	Indoor air		-	
				EPA TO-15	
AA-1	23C2112-08	Ambient Air		-	
				EPA TO-15	
EW-5	23C2112-09	Soil Gas		-	
				EPA TO-15	
EW-6	23C2112-10	Soil Gas		-	
				EPA TO-15	
EW-7	23C2112-11	Soil Gas		-	
				EPA TO-15	
EW-Combined	23C2112-12	Soil Gas		-	
				EPA TO-15	
Post Carbon	23C2112-13	Soil Gas		-	
				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:

L-03 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, Ethanol, Hexachlorobutadiene, Isopropanol

23C2112-09[EW-5], 23C2112-10[EW-6], 23C2112-11[EW-7], 23C2112-12[EW-Combined], 23C2112-13[Post Carbon], B335829-BLK1, B335829-BS1

RL-11 Elevated reporting limit due to high concentration of target compounds.

Analyte & Samples(s) Qualified:

23C2112-09[EW-5], 23C2112-10[EW-6]

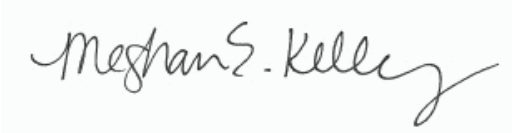
V-05 Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,1,1,2-Tetrachloroethane, Ethanol

23C2112-01[IA-1], 23C2112-02[IA-2], 23C2112-03[IA-3], 23C2112-04[IA-4], 23C2112-05[IA-5], 23C2112-06[IA-6], 23C2112-07[IA-7], 23C2112-08[AA-1], B335780-BLK1, B335780-BS2, B335780-DUP1, S085284-CCV2, 23C2112-09[EW-5], 23C2112-10[EW-6], 23C2112-11[EW-7], 23C2112-12[EW-Combined], 23C2112-13[Post Carbon], B335829-BLK1, B335829-BS1, S085333-CCV1

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.



Meghan E. Kelley
Reporting Specialist

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-1
Sample ID: 23C2112-01
Sample Matrix: Indoor air
Sampled: 3/17/2023 11:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4583
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -6.5
Receipt Vacuum(in Hg): -3.9
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	3.7	1.4	0.85		8.9	3.3	2.0	0.702	3/29/23 2:50	SFM
Benzene	0.32	0.035	0.027		1.0	0.11	0.085	0.702	3/29/23 2:50	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 2:50	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 2:50	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 2:50	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 2:50	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 2:50	SFM
2-Butanone (MEK)	ND	1.4	0.37		ND	4.1	1.1	0.702	3/29/23 2:50	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 2:50	SFM
Carbon Tetrachloride	0.071	0.035	0.028		0.45	0.22	0.18	0.702	3/29/23 2:50	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 2:50	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 2:50	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 2:50	SFM
Chloromethane	0.49	0.070	0.028		1.0	0.14	0.058	0.702	3/29/23 2:50	SFM
Cyclohexane	0.039	0.035	0.021		0.14	0.12	0.073	0.702	3/29/23 2:50	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 2:50	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 2:50	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 2:50	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 2:50	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 2:50	SFM
Dichlorodifluoromethane (Freon 12)	0.23	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 2:50	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 2:50	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 2:50	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 2:50	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 2:50	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 2:50	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 2:50	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 2:50	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 2:50	SFM
Ethanol	6.4	1.4	0.62		12	2.6	1.2	0.702	3/29/23 2:50	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 2:50	SFM
Ethylbenzene	0.048	0.035	0.020		0.21	0.15	0.089	0.702	3/29/23 2:50	SFM
4-Ethyltoluene	0.022	0.035	0.022	J	0.11	0.17	0.11	0.702	3/29/23 2:50	SFM
Heptane	0.064	0.035	0.022		0.26	0.14	0.092	0.702	3/29/23 2:50	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 2:50	SFM
Hexane	0.20	1.4	0.18	J	0.72	4.9	0.64	0.702	3/29/23 2:50	SFM
2-Hexanone (MBK)	ND	0.035	0.018		ND	0.14	0.072	0.702	3/29/23 2:50	SFM
Isopropanol	0.89	1.4	0.24	J	2.2	3.4	0.60	0.702	3/29/23 2:50	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 2:50	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 2:50	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 2:50	SFM
4-Methyl-2-pentanone (MIBK)	0.022	0.035	0.019	J	0.089	0.14	0.077	0.702	3/29/23 2:50	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 2:50	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 2:50	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 2:50	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 2:50	SFM
Tetrachloroethylene	0.074	0.035	0.027		0.50	0.24	0.18	0.702	3/29/23 2:50	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-1
Sample ID: 23C2112-01
Sample Matrix: Indoor air
Sampled: 3/17/2023 11:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4583
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -6.5
Receipt Vacuum(in Hg): -3.9
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	ND	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 2:50	SFM
Toluene	0.38	0.035	0.020		1.4	0.13	0.076	0.702	3/29/23 2:50	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 2:50	SFM
1,1,1-Trichloroethane	0.13	0.035	0.028		0.73	0.19	0.15	0.702	3/29/23 2:50	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 2:50	SFM
Trichloroethylene	0.030	0.035	0.024	J	0.16	0.19	0.13	0.702	3/29/23 2:50	SFM
Trichlorofluoromethane (Freon 11)	0.25	0.14	0.041		1.4	0.79	0.23	0.702	3/29/23 2:50	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.059	0.14	0.039	J	0.45	1.1	0.30	0.702	3/29/23 2:50	SFM
1,2,4-Trimethylbenzene	0.042	0.035	0.016		0.21	0.17	0.076	0.702	3/29/23 2:50	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 2:50	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 2:50	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 2:50	SFM
m&p-Xylene	0.15	0.070	0.039		0.63	0.30	0.17	0.702	3/29/23 2:50	SFM
o-Xylene	0.054	0.035	0.018		0.23	0.15	0.078	0.702	3/29/23 2:50	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	3/29/23 2:50
4-Bromofluorobenzene (2)	107	70-130	3/29/23 2:50

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-2
Sample ID: 23C2112-02
Sample Matrix: Indoor air
Sampled: 3/17/2023 10:49

Sample Description/Location:
Sub Description/Location:
Canister ID: 1804
Canister Size: 6 liter
Flow Controller ID: 4562
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -4.5
Receipt Vacuum(in Hg): -3.4
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	2.8	1.4	0.85		6.6	3.3	2.0	0.702	3/29/23 3:37	SFM
Benzene	0.15	0.035	0.027		0.46	0.11	0.085	0.702	3/29/23 3:37	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 3:37	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 3:37	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 3:37	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 3:37	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 3:37	SFM
2-Butanone (MEK)	ND	1.4	0.37		ND	4.1	1.1	0.702	3/29/23 3:37	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 3:37	SFM
Carbon Tetrachloride	0.068	0.035	0.028		0.43	0.22	0.18	0.702	3/29/23 3:37	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 3:37	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 3:37	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 3:37	SFM
Chloromethane	0.49	0.070	0.028		1.0	0.14	0.058	0.702	3/29/23 3:37	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 3:37	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 3:37	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 3:37	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 3:37	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 3:37	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 3:37	SFM
Dichlorodifluoromethane (Freon 12)	0.23	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 3:37	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 3:37	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 3:37	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 3:37	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 3:37	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 3:37	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 3:37	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 3:37	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 3:37	SFM
Ethanol	5.3	1.4	0.62		10	2.6	1.2	0.702	3/29/23 3:37	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 3:37	SFM
Ethylbenzene	ND	0.035	0.020		ND	0.15	0.089	0.702	3/29/23 3:37	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 3:37	SFM
Heptane	0.025	0.035	0.022	J	0.10	0.14	0.092	0.702	3/29/23 3:37	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 3:37	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 3:37	SFM
2-Hexanone (MBK)	ND	0.035	0.018		ND	0.14	0.072	0.702	3/29/23 3:37	SFM
Isopropanol	0.32	1.4	0.24	J	0.79	3.4	0.60	0.702	3/29/23 3:37	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 3:37	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 3:37	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 3:37	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.019		ND	0.14	0.077	0.702	3/29/23 3:37	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 3:37	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 3:37	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 3:37	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 3:37	SFM
Tetrachloroethylene	0.062	0.035	0.027		0.42	0.24	0.18	0.702	3/29/23 3:37	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-2
Sample ID: 23C2112-02
Sample Matrix: Indoor air
Sampled: 3/17/2023 10:49

Sample Description/Location:
Sub Description/Location:
Canister ID: 1804
Canister Size: 6 liter
Flow Controller ID: 4562
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -4.5
Receipt Vacuum(in Hg): -3.4
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	ND	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 3:37	SFM
Toluene	0.10	0.035	0.020		0.39	0.13	0.076	0.702	3/29/23 3:37	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 3:37	SFM
1,1,1-Trichloroethane	ND	0.035	0.028		ND	0.19	0.15	0.702	3/29/23 3:37	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 3:37	SFM
Trichloroethylene	ND	0.035	0.024		ND	0.19	0.13	0.702	3/29/23 3:37	SFM
Trichlorofluoromethane (Freon 11)	0.20	0.14	0.041		1.1	0.79	0.23	0.702	3/29/23 3:37	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.057	0.14	0.039	J	0.44	1.1	0.30	0.702	3/29/23 3:37	SFM
1,2,4-Trimethylbenzene	0.018	0.035	0.016	J	0.086	0.17	0.076	0.702	3/29/23 3:37	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 3:37	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 3:37	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 3:37	SFM
m&p-Xylene	ND	0.070	0.039		ND	0.30	0.17	0.702	3/29/23 3:37	SFM
o-Xylene	0.019	0.035	0.018	J	0.082	0.15	0.078	0.702	3/29/23 3:37	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	3/29/23 3:37
4-Bromofluorobenzene (2)	102	70-130	3/29/23 3:37

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-3
Sample ID: 23C2112-03
Sample Matrix: Indoor air
Sampled: 3/17/2023 11:10

Sample Description/Location:
Sub Description/Location:
Canister ID: P1272
Canister Size: 6 liter
Flow Controller ID: 4371
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -30.0
Final Vacuum(in Hg): -5.0
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	6.5	1.4	0.85		15	3.3	2.0	0.702	3/29/23 4:25	SFM
Benzene	0.35	0.035	0.027		1.1	0.11	0.085	0.702	3/29/23 4:25	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 4:25	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 4:25	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 4:25	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 4:25	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 4:25	SFM
2-Butanone (MEK)	0.85	1.4	0.37	J	2.5	4.1	1.1	0.702	3/29/23 4:25	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 4:25	SFM
Carbon Tetrachloride	ND	0.035	0.028		ND	0.22	0.18	0.702	3/29/23 4:25	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 4:25	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 4:25	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 4:25	SFM
Chloromethane	0.49	0.070	0.028		1.0	0.14	0.058	0.702	3/29/23 4:25	SFM
Cyclohexane	0.046	0.035	0.021		0.16	0.12	0.073	0.702	3/29/23 4:25	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 4:25	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 4:25	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 4:25	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 4:25	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 4:25	SFM
Dichlorodifluoromethane (Freon 12)	0.24	0.035	0.034		1.2	0.17	0.17	0.702	3/29/23 4:25	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 4:25	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 4:25	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 4:25	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 4:25	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 4:25	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 4:25	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 4:25	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 4:25	SFM
Ethanol	7.7	1.4	0.62		15	2.6	1.2	0.702	3/29/23 4:25	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 4:25	SFM
Ethylbenzene	0.054	0.035	0.020		0.23	0.15	0.089	0.702	3/29/23 4:25	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 4:25	SFM
Heptane	0.078	0.035	0.022		0.32	0.14	0.092	0.702	3/29/23 4:25	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 4:25	SFM
Hexane	0.23	1.4	0.18	J	0.82	4.9	0.64	0.702	3/29/23 4:25	SFM
2-Hexanone (MBK)	0.086	0.035	0.018		0.35	0.14	0.072	0.702	3/29/23 4:25	SFM
Isopropanol	0.89	1.4	0.24	J	2.2	3.4	0.60	0.702	3/29/23 4:25	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 4:25	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 4:25	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 4:25	SFM
4-Methyl-2-pentanone (MIBK)	0.043	0.035	0.019		0.18	0.14	0.077	0.702	3/29/23 4:25	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 4:25	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 4:25	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 4:25	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 4:25	SFM
Tetrachloroethylene	0.076	0.035	0.027		0.51	0.24	0.18	0.702	3/29/23 4:25	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-3
Sample ID: 23C2112-03
Sample Matrix: Indoor air
Sampled: 3/17/2023 11:10

Sample Description/Location:
Sub Description/Location:
Canister ID: P1272
Canister Size: 6 liter
Flow Controller ID: 4371
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -30.0
Final Vacuum(in Hg): -5.0
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	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 4:25	SFM
Toluene	0.46	0.035	0.020		1.7	0.13	0.076	0.702	3/29/23 4:25	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 4:25	SFM
1,1,1-Trichloroethane	0.12	0.035	0.028		0.64	0.19	0.15	0.702	3/29/23 4:25	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 4:25	SFM
Trichloroethylene	0.040	0.035	0.024		0.21	0.19	0.13	0.702	3/29/23 4:25	SFM
Trichlorofluoromethane (Freon 11)	0.24	0.14	0.041		1.3	0.79	0.23	0.702	3/29/23 4:25	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.057	0.14	0.039	J	0.44	1.1	0.30	0.702	3/29/23 4:25	SFM
1,2,4-Trimethylbenzene	0.044	0.035	0.016		0.21	0.17	0.076	0.702	3/29/23 4:25	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 4:25	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 4:25	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 4:25	SFM
m&p-Xylene	0.16	0.070	0.039		0.71	0.30	0.17	0.702	3/29/23 4:25	SFM
o-Xylene	0.067	0.035	0.018		0.29	0.15	0.078	0.702	3/29/23 4:25	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	105	70-130	3/29/23 4:25
4-Bromofluorobenzene (2)	107	70-130	3/29/23 4:25

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-4
Sample ID: 23C2112-04
Sample Matrix: Indoor air
Sampled: 3/17/2023 10:50

Sample Description/Location:
Sub Description/Location:
Canister ID: 1244
Canister Size: 6 liter
Flow Controller ID: 4561
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -3.9
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	2.4	1.4	0.85		5.8	3.3	2.0	0.702	3/29/23 5:12	SFM
Benzene	0.15	0.035	0.027		0.48	0.11	0.085	0.702	3/29/23 5:12	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 5:12	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 5:12	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 5:12	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 5:12	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 5:12	SFM
2-Butanone (MEK)	ND	1.4	0.37		ND	4.1	1.1	0.702	3/29/23 5:12	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 5:12	SFM
Carbon Tetrachloride	0.069	0.035	0.028		0.44	0.22	0.18	0.702	3/29/23 5:12	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 5:12	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 5:12	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 5:12	SFM
Chloromethane	0.48	0.070	0.028		0.99	0.14	0.058	0.702	3/29/23 5:12	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 5:12	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 5:12	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 5:12	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 5:12	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 5:12	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 5:12	SFM
Dichlorodifluoromethane (Freon 12)	0.22	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 5:12	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 5:12	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 5:12	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 5:12	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 5:12	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 5:12	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 5:12	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 5:12	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 5:12	SFM
Ethanol	4.9	1.4	0.62		9.2	2.6	1.2	0.702	3/29/23 5:12	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 5:12	SFM
Ethylbenzene	ND	0.035	0.020		ND	0.15	0.089	0.702	3/29/23 5:12	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 5:12	SFM
Heptane	0.029	0.035	0.022	J	0.12	0.14	0.092	0.702	3/29/23 5:12	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 5:12	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 5:12	SFM
2-Hexanone (MBK)	ND	0.035	0.018		ND	0.14	0.072	0.702	3/29/23 5:12	SFM
Isopropanol	0.26	1.4	0.24	J	0.65	3.4	0.60	0.702	3/29/23 5:12	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 5:12	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 5:12	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 5:12	SFM
4-Methyl-2-pentanone (MIBK)	0.025	0.035	0.019	J	0.10	0.14	0.077	0.702	3/29/23 5:12	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 5:12	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 5:12	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 5:12	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 5:12	SFM
Tetrachloroethylene	0.068	0.035	0.027		0.46	0.24	0.18	0.702	3/29/23 5:12	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-4
Sample ID: 23C2112-04
Sample Matrix: Indoor air
Sampled: 3/17/2023 10:50

Sample Description/Location:
Sub Description/Location:
Canister ID: 1244
Canister Size: 6 liter
Flow Controller ID: 4561
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -3.9
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	ND	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 5:12	SFM
Toluene	0.13	0.035	0.020		0.48	0.13	0.076	0.702	3/29/23 5:12	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 5:12	SFM
1,1,1-Trichloroethane	ND	0.035	0.028		ND	0.19	0.15	0.702	3/29/23 5:12	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 5:12	SFM
Trichloroethylene	ND	0.035	0.024		ND	0.19	0.13	0.702	3/29/23 5:12	SFM
Trichlorofluoromethane (Freon 11)	0.20	0.14	0.041		1.1	0.79	0.23	0.702	3/29/23 5:12	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.055	0.14	0.039	J	0.42	1.1	0.30	0.702	3/29/23 5:12	SFM
1,2,4-Trimethylbenzene	0.018	0.035	0.016	J	0.090	0.17	0.076	0.702	3/29/23 5:12	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 5:12	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 5:12	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 5:12	SFM
m&p-Xylene	0.048	0.070	0.039	J	0.21	0.30	0.17	0.702	3/29/23 5:12	SFM
o-Xylene	0.021	0.035	0.018	J	0.091	0.15	0.078	0.702	3/29/23 5:12	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	3/29/23 5:12
4-Bromofluorobenzene (2)	104	70-130	3/29/23 5:12

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-5
Sample ID: 23C2112-05
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 1722
Canister Size: 6 liter
Flow Controller ID: 4555
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -6.0
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	3.0	1.4	0.85		7.2	3.3	2.0	0.702	3/29/23 6:00	SFM
Benzene	0.16	0.035	0.027		0.52	0.11	0.085	0.702	3/29/23 6:00	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 6:00	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 6:00	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 6:00	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 6:00	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 6:00	SFM
2-Butanone (MEK)	ND	1.4	0.37		ND	4.1	1.1	0.702	3/29/23 6:00	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 6:00	SFM
Carbon Tetrachloride	0.055	0.035	0.028		0.35	0.22	0.18	0.702	3/29/23 6:00	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 6:00	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 6:00	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 6:00	SFM
Chloromethane	0.53	0.070	0.028		1.1	0.14	0.058	0.702	3/29/23 6:00	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 6:00	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 6:00	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 6:00	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 6:00	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 6:00	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 6:00	SFM
Dichlorodifluoromethane (Freon 12)	0.23	0.035	0.034		1.2	0.17	0.17	0.702	3/29/23 6:00	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 6:00	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 6:00	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 6:00	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 6:00	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 6:00	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 6:00	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 6:00	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 6:00	SFM
Ethanol	5.2	1.4	0.62		9.9	2.6	1.2	0.702	3/29/23 6:00	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 6:00	SFM
Ethylbenzene	ND	0.035	0.020		ND	0.15	0.089	0.702	3/29/23 6:00	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 6:00	SFM
Heptane	0.031	0.035	0.022	J	0.13	0.14	0.092	0.702	3/29/23 6:00	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 6:00	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 6:00	SFM
2-Hexanone (MBK)	ND	0.035	0.018		ND	0.14	0.072	0.702	3/29/23 6:00	SFM
Isopropanol	0.92	1.4	0.24	J	2.3	3.4	0.60	0.702	3/29/23 6:00	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 6:00	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 6:00	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 6:00	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.019		ND	0.14	0.077	0.702	3/29/23 6:00	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 6:00	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 6:00	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 6:00	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 6:00	SFM
Tetrachloroethylene	0.055	0.035	0.027		0.38	0.24	0.18	0.702	3/29/23 6:00	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-5
Sample ID: 23C2112-05
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:12

Sample Description/Location:
Sub Description/Location:
Canister ID: 1722
Canister Size: 6 liter
Flow Controller ID: 4555
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -6.0
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	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 6:00	SFM
Toluene	0.14	0.035	0.020		0.54	0.13	0.076	0.702	3/29/23 6:00	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 6:00	SFM
1,1,1-Trichloroethane	0.98	0.035	0.028		5.4	0.19	0.15	0.702	3/29/23 6:00	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 6:00	SFM
Trichloroethylene	0.063	0.035	0.024		0.34	0.19	0.13	0.702	3/29/23 6:00	SFM
Trichlorofluoromethane (Freon 11)	0.39	0.14	0.041		2.2	0.79	0.23	0.702	3/29/23 6:00	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.058	0.14	0.039	J	0.45	1.1	0.30	0.702	3/29/23 6:00	SFM
1,2,4-Trimethylbenzene	0.017	0.035	0.016	J	0.083	0.17	0.076	0.702	3/29/23 6:00	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 6:00	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 6:00	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 6:00	SFM
m&p-Xylene	0.056	0.070	0.039	J	0.24	0.30	0.17	0.702	3/29/23 6:00	SFM
o-Xylene	0.025	0.035	0.018	J	0.11	0.15	0.078	0.702	3/29/23 6:00	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	3/29/23 6:00
4-Bromofluorobenzene (2)	107	70-130	3/29/23 6:00

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-6
Sample ID: 23C2112-06
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:05

Sample Description/Location:
Sub Description/Location:
Canister ID: 2164
Canister Size: 6 liter
Flow Controller ID: 4742
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -3.6
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	4.4	1.4	0.85		10	3.3	2.0	0.702	3/29/23 6:47	SFM
Benzene	0.17	0.035	0.027		0.53	0.11	0.085	0.702	3/29/23 6:47	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 6:47	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 6:47	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 6:47	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 6:47	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 6:47	SFM
2-Butanone (MEK)	0.38	1.4	0.37	J	1.1	4.1	1.1	0.702	3/29/23 6:47	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 6:47	SFM
Carbon Tetrachloride	0.074	0.035	0.028		0.46	0.22	0.18	0.702	3/29/23 6:47	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 6:47	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 6:47	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 6:47	SFM
Chloromethane	0.51	0.070	0.028		1.1	0.14	0.058	0.702	3/29/23 6:47	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 6:47	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 6:47	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 6:47	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 6:47	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 6:47	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 6:47	SFM
Dichlorodifluoromethane (Freon 12)	0.22	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 6:47	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 6:47	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 6:47	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 6:47	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 6:47	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 6:47	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 6:47	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 6:47	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 6:47	SFM
Ethanol	6.8	1.4	0.62		13	2.6	1.2	0.702	3/29/23 6:47	SFM
Ethyl Acetate	ND	0.35	0.18		ND	1.3	0.64	0.702	3/29/23 6:47	SFM
Ethylbenzene	0.023	0.035	0.020	J	0.10	0.15	0.089	0.702	3/29/23 6:47	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 6:47	SFM
Heptane	0.036	0.035	0.022		0.15	0.14	0.092	0.702	3/29/23 6:47	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 6:47	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 6:47	SFM
2-Hexanone (MBK)	0.038	0.035	0.018		0.16	0.14	0.072	0.702	3/29/23 6:47	SFM
Isopropanol	0.57	1.4	0.24	J	1.4	3.4	0.60	0.702	3/29/23 6:47	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 6:47	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 6:47	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 6:47	SFM
4-Methyl-2-pentanone (MIBK)	0.022	0.035	0.019	J	0.089	0.14	0.077	0.702	3/29/23 6:47	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 6:47	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 6:47	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 6:47	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 6:47	SFM
Tetrachloroethylene	0.060	0.035	0.027		0.41	0.24	0.18	0.702	3/29/23 6:47	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-6
Sample ID: 23C2112-06
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:05

Sample Description/Location:
Sub Description/Location:
Canister ID: 2164
Canister Size: 6 liter
Flow Controller ID: 4742
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -3.6
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	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 6:47	SFM
Toluene	0.16	0.035	0.020		0.60	0.13	0.076	0.702	3/29/23 6:47	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 6:47	SFM
1,1,1-Trichloroethane	0.84	0.035	0.028		4.6	0.19	0.15	0.702	3/29/23 6:47	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 6:47	SFM
Trichloroethylene	0.092	0.035	0.024		0.49	0.19	0.13	0.702	3/29/23 6:47	SFM
Trichlorofluoromethane (Freon 11)	0.32	0.14	0.041		1.8	0.79	0.23	0.702	3/29/23 6:47	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.055	0.14	0.039	J	0.42	1.1	0.30	0.702	3/29/23 6:47	SFM
1,2,4-Trimethylbenzene	0.027	0.035	0.016	J	0.13	0.17	0.076	0.702	3/29/23 6:47	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 6:47	SFM
Vinyl Acetate	0.29	0.70	0.19	J	1.0	2.5	0.66	0.702	3/29/23 6:47	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 6:47	SFM
m&p-Xylene	0.062	0.070	0.039	J	0.27	0.30	0.17	0.702	3/29/23 6:47	SFM
o-Xylene	0.029	0.035	0.018	J	0.13	0.15	0.078	0.702	3/29/23 6:47	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/29/23 6:47
4-Bromofluorobenzene (2)	102	70-130	3/29/23 6:47

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-7
Sample ID: 23C2112-07
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:32

Sample Description/Location:
Sub Description/Location:
Canister ID: 2170
Canister Size: 6 liter
Flow Controller ID: 4556
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -5.0
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	9.6	1.4	0.85		23	3.3	2.0	0.702	3/29/23 8:23	SFM
Benzene	0.17	0.035	0.027		0.56	0.11	0.085	0.702	3/29/23 8:23	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 8:23	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 8:23	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 8:23	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 8:23	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 8:23	SFM
2-Butanone (MEK)	0.73	1.4	0.37	J	2.2	4.1	1.1	0.702	3/29/23 8:23	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 8:23	SFM
Carbon Tetrachloride	0.072	0.035	0.028		0.45	0.22	0.18	0.702	3/29/23 8:23	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 8:23	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 8:23	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 8:23	SFM
Chloromethane	0.49	0.070	0.028		1.0	0.14	0.058	0.702	3/29/23 8:23	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 8:23	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 8:23	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 8:23	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 8:23	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 8:23	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 8:23	SFM
Dichlorodifluoromethane (Freon 12)	0.23	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 8:23	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 8:23	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 8:23	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 8:23	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 8:23	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 8:23	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 8:23	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 8:23	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 8:23	SFM
Ethanol	11	1.4	0.62		21	2.6	1.2	0.702	3/29/23 8:23	SFM
Ethyl Acetate	0.33	0.35	0.18	J	1.2	1.3	0.64	0.702	3/29/23 8:23	SFM
Ethylbenzene	0.026	0.035	0.020	J	0.11	0.15	0.089	0.702	3/29/23 8:23	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 8:23	SFM
Heptane	0.035	0.035	0.022		0.14	0.14	0.092	0.702	3/29/23 8:23	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 8:23	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 8:23	SFM
2-Hexanone (MBK)	0.060	0.035	0.018		0.24	0.14	0.072	0.702	3/29/23 8:23	SFM
Isopropanol	0.64	1.4	0.24	J	1.6	3.4	0.60	0.702	3/29/23 8:23	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 8:23	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 8:23	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 8:23	SFM
4-Methyl-2-pentanone (MIBK)	0.091	0.035	0.019		0.37	0.14	0.077	0.702	3/29/23 8:23	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 8:23	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 8:23	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 8:23	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 8:23	SFM
Tetrachloroethylene	0.072	0.035	0.027		0.49	0.24	0.18	0.702	3/29/23 8:23	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: IA-7
Sample ID: 23C2112-07
Sample Matrix: Indoor air
Sampled: 3/17/2023 12:32

Sample Description/Location:
Sub Description/Location:
Canister ID: 2170
Canister Size: 6 liter
Flow Controller ID: 4556
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -5.0
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	0.35	0.058		ND	1.0	0.17	0.702	3/29/23 8:23	SFM
Toluene	0.19	0.035	0.020		0.71	0.13	0.076	0.702	3/29/23 8:23	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 8:23	SFM
1,1,1-Trichloroethane	0.081	0.035	0.028		0.44	0.19	0.15	0.702	3/29/23 8:23	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 8:23	SFM
Trichloroethylene	0.044	0.035	0.024		0.23	0.19	0.13	0.702	3/29/23 8:23	SFM
Trichlorofluoromethane (Freon 11)	0.27	0.14	0.041		1.5	0.79	0.23	0.702	3/29/23 8:23	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.055	0.14	0.039	J	0.42	1.1	0.30	0.702	3/29/23 8:23	SFM
1,2,4-Trimethylbenzene	0.024	0.035	0.016	J	0.12	0.17	0.076	0.702	3/29/23 8:23	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 8:23	SFM
Vinyl Acetate	0.36	0.70	0.19	J	1.3	2.5	0.66	0.702	3/29/23 8:23	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 8:23	SFM
m&p-Xylene	0.074	0.070	0.039		0.32	0.30	0.17	0.702	3/29/23 8:23	SFM
o-Xylene	0.032	0.035	0.018	J	0.14	0.15	0.078	0.702	3/29/23 8:23	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	3/29/23 8:23
4-Bromofluorobenzene (2)	103	70-130	3/29/23 8:23

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: AA-1
Sample ID: 23C2112-08
Sample Matrix: Ambient Air
Sampled: 3/17/2023 12:55

Sample Description/Location:
Sub Description/Location:
Canister ID: 2197
Canister Size: 6 liter
Flow Controller ID: 4576
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -5.5
Receipt Vacuum(in Hg): -4.1
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	2.8	1.4	0.85		6.7	3.3	2.0	0.702	3/29/23 9:11	SFM
Benzene	0.12	0.035	0.027		0.37	0.11	0.085	0.702	3/29/23 9:11	SFM
Benzyl chloride	ND	0.035	0.031		ND	0.18	0.16	0.702	3/29/23 9:11	SFM
Bromodichloromethane	ND	0.035	0.025		ND	0.24	0.16	0.702	3/29/23 9:11	SFM
Bromoform	ND	0.035	0.024		ND	0.36	0.25	0.702	3/29/23 9:11	SFM
Bromomethane	ND	0.035	0.023		ND	0.14	0.091	0.702	3/29/23 9:11	SFM
1,3-Butadiene	ND	0.035	0.029		ND	0.078	0.065	0.702	3/29/23 9:11	SFM
2-Butanone (MEK)	ND	1.4	0.37		ND	4.1	1.1	0.702	3/29/23 9:11	SFM
Carbon Disulfide	ND	0.35	0.032		ND	1.1	0.10	0.702	3/29/23 9:11	SFM
Carbon Tetrachloride	0.072	0.035	0.028		0.45	0.22	0.18	0.702	3/29/23 9:11	SFM
Chlorobenzene	ND	0.035	0.023		ND	0.16	0.11	0.702	3/29/23 9:11	SFM
Chloroethane	ND	0.035	0.031		ND	0.093	0.082	0.702	3/29/23 9:11	SFM
Chloroform	ND	0.035	0.033		ND	0.17	0.16	0.702	3/29/23 9:11	SFM
Chloromethane	0.47	0.070	0.028		0.97	0.14	0.058	0.702	3/29/23 9:11	SFM
Cyclohexane	ND	0.035	0.021		ND	0.12	0.073	0.702	3/29/23 9:11	SFM
Dibromochloromethane	ND	0.035	0.023		ND	0.30	0.20	0.702	3/29/23 9:11	SFM
1,2-Dibromoethane (EDB)	ND	0.035	0.021		ND	0.27	0.16	0.702	3/29/23 9:11	SFM
1,2-Dichlorobenzene	ND	0.035	0.020		ND	0.21	0.12	0.702	3/29/23 9:11	SFM
1,3-Dichlorobenzene	ND	0.035	0.019		ND	0.21	0.12	0.702	3/29/23 9:11	SFM
1,4-Dichlorobenzene	ND	0.035	0.023		ND	0.21	0.14	0.702	3/29/23 9:11	SFM
Dichlorodifluoromethane (Freon 12)	0.23	0.035	0.034		1.1	0.17	0.17	0.702	3/29/23 9:11	SFM
1,1-Dichloroethane	ND	0.035	0.031		ND	0.14	0.12	0.702	3/29/23 9:11	SFM
1,2-Dichloroethane	ND	0.035	0.032		ND	0.14	0.13	0.702	3/29/23 9:11	SFM
1,1-Dichloroethylene	ND	0.035	0.027		ND	0.14	0.11	0.702	3/29/23 9:11	SFM
cis-1,2-Dichloroethylene	ND	0.035	0.026		ND	0.14	0.10	0.702	3/29/23 9:11	SFM
trans-1,2-Dichloroethylene	ND	0.035	0.028		ND	0.14	0.11	0.702	3/29/23 9:11	SFM
1,2-Dichloropropane	ND	0.035	0.019		ND	0.16	0.088	0.702	3/29/23 9:11	SFM
cis-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 9:11	SFM
trans-1,3-Dichloropropene	ND	0.035	0.018		ND	0.16	0.082	0.702	3/29/23 9:11	SFM
Ethanol	2.4	1.4	0.62		4.5	2.6	1.2	0.702	3/29/23 9:11	SFM
Ethyl Acetate	0.47	0.35	0.18		1.7	1.3	0.64	0.702	3/29/23 9:11	SFM
Ethylbenzene	ND	0.035	0.020		ND	0.15	0.089	0.702	3/29/23 9:11	SFM
4-Ethyltoluene	ND	0.035	0.022		ND	0.17	0.11	0.702	3/29/23 9:11	SFM
Heptane	ND	0.035	0.022		ND	0.14	0.092	0.702	3/29/23 9:11	SFM
Hexachlorobutadiene	ND	0.035	0.029		ND	0.37	0.31	0.702	3/29/23 9:11	SFM
Hexane	ND	1.4	0.18		ND	4.9	0.64	0.702	3/29/23 9:11	SFM
2-Hexanone (MBK)	0.041	0.035	0.018		0.17	0.14	0.072	0.702	3/29/23 9:11	SFM
Isopropanol	ND	1.4	0.24		ND	3.4	0.60	0.702	3/29/23 9:11	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.027		ND	0.13	0.098	0.702	3/29/23 9:11	SFM
Methylene Chloride	ND	0.35	0.16		ND	1.2	0.57	0.702	3/29/23 9:11	SFM
Methyl methacrylate	ND	0.035	0.018		ND	0.14	0.073	0.702	3/29/23 9:11	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.019		ND	0.14	0.077	0.702	3/29/23 9:11	SFM
Propene	ND	1.4	0.31		ND	2.4	0.53	0.702	3/29/23 9:11	SFM
Styrene	ND	0.035	0.018		ND	0.15	0.079	0.702	3/29/23 9:11	SFM
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	V-05	ND	0.44	0.16	0.702	3/29/23 9:11	CMR
1,1,2,2-Tetrachloroethane	ND	0.035	0.019		ND	0.24	0.13	0.702	3/29/23 9:11	SFM
Tetrachloroethylene	ND	0.035	0.027		ND	0.24	0.18	0.702	3/29/23 9:11	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: AA-1
Sample ID: 23C2112-08
Sample Matrix: Ambient Air
Sampled: 3/17/2023 12:55

Sample Description/Location:
Sub Description/Location:
Canister ID: 2197
Canister Size: 6 liter
Flow Controller ID: 4576
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -5.5
Receipt Vacuum(in Hg): -4.1
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	0.058		ND	1.0	0.17	0.702	3/29/23 9:11	SFM
Toluene	0.062	0.035	0.020		0.23	0.13	0.076	0.702	3/29/23 9:11	SFM
1,2,4-Trichlorobenzene	ND	0.035	0.033		ND	0.26	0.24	0.702	3/29/23 9:11	SFM
1,1,1-Trichloroethane	ND	0.035	0.028		ND	0.19	0.15	0.702	3/29/23 9:11	SFM
1,1,2-Trichloroethane	ND	0.035	0.025		ND	0.19	0.13	0.702	3/29/23 9:11	SFM
Trichloroethylene	ND	0.035	0.024		ND	0.19	0.13	0.702	3/29/23 9:11	SFM
Trichlorofluoromethane (Freon 11)	0.19	0.14	0.041		1.1	0.79	0.23	0.702	3/29/23 9:11	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.058	0.14	0.039	J	0.44	1.1	0.30	0.702	3/29/23 9:11	SFM
1,2,4-Trimethylbenzene	0.031	0.035	0.016	J	0.15	0.17	0.076	0.702	3/29/23 9:11	SFM
1,3,5-Trimethylbenzene	ND	0.035	0.019		ND	0.17	0.091	0.702	3/29/23 9:11	SFM
Vinyl Acetate	ND	0.70	0.19		ND	2.5	0.66	0.702	3/29/23 9:11	SFM
Vinyl Chloride	ND	0.035	0.032		ND	0.090	0.081	0.702	3/29/23 9:11	SFM
m&p-Xylene	ND	0.070	0.039		ND	0.30	0.17	0.702	3/29/23 9:11	SFM
o-Xylene	ND	0.035	0.018		ND	0.15	0.078	0.702	3/29/23 9:11	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/29/23 9:11
4-Bromofluorobenzene (2)	99.4	70-130	3/29/23 9:11

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-5
Sample ID: 23C2112-09
Sample Matrix: Soil Gas
Sampled: 3/17/2023 11:08

Sample Description/Location:
Sub Description/Location:
Canister ID: 2182
Canister Size: 6 liter
Flow Controller ID: 4584
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -9.0
Receipt Vacuum(in Hg): -7.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-11

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	ND	120	72		ND	290	170	60	3/30/23 23:25	SFM
Benzene	ND	3.0	2.3		ND	9.6	7.3	60	3/30/23 23:25	SFM
Benzyl chloride	ND	3.0	2.6		ND	16	14	60	3/30/23 23:25	SFM
Bromodichloromethane	ND	3.0	2.1		ND	20	14	60	3/30/23 23:25	SFM
Bromoform	ND	3.0	2.0		ND	31	21	60	3/30/23 23:25	SFM
Bromomethane	ND	3.0	2.0		ND	12	7.8	60	3/30/23 23:25	SFM
1,3-Butadiene	ND	3.0	2.5		ND	6.6	5.6	60	3/30/23 23:25	SFM
2-Butanone (MEK)	ND	120	32		ND	350	94	60	3/30/23 23:25	SFM
Carbon Disulfide	8.6	30	2.8	J	27	93	8.6	60	3/30/23 23:25	SFM
Carbon Tetrachloride	ND	3.0	2.4		ND	19	15	60	3/30/23 23:25	SFM
Chlorobenzene	ND	3.0	2.0		ND	14	9.2	60	3/30/23 23:25	SFM
Chloroethane	ND	3.0	2.7		ND	7.9	7.0	60	3/30/23 23:25	SFM
Chloroform	ND	3.0	2.8		ND	15	14	60	3/30/23 23:25	SFM
Chloromethane	ND	6.0	2.4		ND	12	4.9	60	3/30/23 23:25	SFM
Cyclohexane	ND	3.0	1.8		ND	10	6.2	60	3/30/23 23:25	SFM
Dibromochloromethane	ND	3.0	2.0		ND	26	17	60	3/30/23 23:25	SFM
1,2-Dibromoethane (EDB)	ND	3.0	1.8		ND	23	14	60	3/30/23 23:25	SFM
1,2-Dichlorobenzene	ND	3.0	1.7		ND	18	10	60	3/30/23 23:25	SFM
1,3-Dichlorobenzene	ND	3.0	1.7		ND	18	10.0	60	3/30/23 23:25	SFM
1,4-Dichlorobenzene	ND	3.0	2.0		ND	18	12	60	3/30/23 23:25	SFM
Dichlorodifluoromethane (Freon 12)	ND	3.0	2.9		ND	15	14	60	3/30/23 23:25	SFM
1,1-Dichloroethane	210	3.0	2.6		860	12	11	60	3/30/23 23:25	SFM
1,2-Dichloroethane	ND	3.0	2.7		ND	12	11	60	3/30/23 23:25	SFM
1,1-Dichloroethylene	110	3.0	2.3		430	12	9.1	60	3/30/23 23:25	SFM
cis-1,2-Dichloroethylene	5.1	3.0	2.2		20	12	8.7	60	3/30/23 23:25	SFM
trans-1,2-Dichloroethylene	ND	3.0	2.4		ND	12	9.3	60	3/30/23 23:25	SFM
1,2-Dichloropropane	ND	3.0	1.6		ND	14	7.5	60	3/30/23 23:25	SFM
cis-1,3-Dichloropropene	ND	3.0	1.6		ND	14	7.1	60	3/30/23 23:25	SFM
trans-1,3-Dichloropropene	ND	3.0	1.5		ND	14	7.0	60	3/30/23 23:25	SFM
Ethanol	ND	120	53	L-03, V-05	ND	230	100	60	3/30/23 23:25	SFM
Ethyl Acetate	ND	30	15		ND	110	55	60	3/30/23 23:25	SFM
Ethylbenzene	ND	3.0	1.8		ND	13	7.6	60	3/30/23 23:25	SFM
4-Ethyltoluene	ND	3.0	1.8		ND	15	9.1	60	3/30/23 23:25	SFM
Heptane	ND	3.0	1.9		ND	12	7.9	60	3/30/23 23:25	SFM
Hexachlorobutadiene	ND	3.0	2.5	L-03	ND	32	26	60	3/30/23 23:25	SFM
Hexane	ND	120	16		ND	420	55	60	3/30/23 23:25	SFM
2-Hexanone (MBK)	ND	3.0	1.5		ND	12	6.1	60	3/30/23 23:25	SFM
Isopropanol	ND	120	21	L-03	ND	290	51	60	3/30/23 23:25	SFM
Methyl tert-Butyl Ether (MTBE)	ND	3.0	2.3		ND	11	8.4	60	3/30/23 23:25	SFM
Methylene Chloride	ND	30	14		ND	100	48	60	3/30/23 23:25	SFM
Methyl methacrylate	ND	3.0	1.5		ND	12	6.2	60	3/30/23 23:25	SFM
4-Methyl-2-pentanone (MIBK)	ND	3.0	1.6		ND	12	6.6	60	3/30/23 23:25	SFM
Propene	ND	120	26		ND	210	45	60	3/30/23 23:25	SFM
Styrene	ND	3.0	1.6		ND	13	6.7	60	3/30/23 23:25	SFM
1,1,1,2-Tetrachloroethane	ND	5.5	2.0		ND	37	14	60	3/30/23 23:25	CMR
1,1,2,2-Tetrachloroethane	ND	3.0	1.6		ND	21	11	60	3/30/23 23:25	SFM
Tetrachloroethylene	29	3.0	2.3		200	20	16	60	3/30/23 23:25	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-5
Sample ID: 23C2112-09
Sample Matrix: Soil Gas
Sampled: 3/17/2023 11:08

Sample Description/Location:
Sub Description/Location:
Canister ID: 2182
Canister Size: 6 liter
Flow Controller ID: 4584
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.0
Final Vacuum(in Hg): -9.0
Receipt Vacuum(in Hg): -7.7
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-11

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	120	30	4.9		360	88	15	60	3/30/23 23:25	SFM
Toluene	ND	3.0	1.7		ND	11	6.5	60	3/30/23 23:25	SFM
1,2,4-Trichlorobenzene	ND	3.0	2.8	L-03	ND	22	21	60	3/30/23 23:25	SFM
1,1,1-Trichloroethane	3700	15	12		20000	82	64	300	3/31/23 0:08	SFM
1,1,2-Trichloroethane	ND	3.0	2.1		ND	16	12	60	3/30/23 23:25	SFM
Trichloroethylene	2000	3.0	2.0		11000	16	11	60	3/30/23 23:25	SFM
Trichlorofluoromethane (Freon 11)	200	12	3.5		1200	67	20	60	3/30/23 23:25	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	12	3.3		ND	92	26	60	3/30/23 23:25	SFM
1,2,4-Trimethylbenzene	ND	3.0	1.3		ND	15	6.5	60	3/30/23 23:25	SFM
1,3,5-Trimethylbenzene	ND	3.0	1.6		ND	15	7.8	60	3/30/23 23:25	SFM
Vinyl Acetate	ND	60	16		ND	210	57	60	3/30/23 23:25	SFM
Vinyl Chloride	ND	3.0	2.7		ND	7.7	6.9	60	3/30/23 23:25	SFM
m&p-Xylene	ND	6.0	3.4		ND	26	15	60	3/30/23 23:25	SFM
o-Xylene	ND	3.0	1.5		ND	13	6.7	60	3/30/23 23:25	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/30/23 23:25
4-Bromofluorobenzene (1)	102	70-130	3/31/23 0:08
4-Bromofluorobenzene (2)	101	70-130	3/30/23 23:25
4-Bromofluorobenzene (2)	102	70-130	3/31/23 0:08

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-6
Sample ID: 23C2112-10
Sample Matrix: Soil Gas
Sampled: 3/17/2023 12:09

Sample Description/Location:
Sub Description/Location:
Canister ID: 1713
Canister Size: 6 liter
Flow Controller ID: 4743
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -4.0
Receipt Vacuum(in Hg): -3.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-11

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Acetone	ND	120	72		ND	290	170	60	3/30/23 22:46	SFM
Benzene	ND	3.0	2.3		ND	9.6	7.3	60	3/30/23 22:46	SFM
Benzyl chloride	ND	3.0	2.6		ND	16	14	60	3/30/23 22:46	SFM
Bromodichloromethane	ND	3.0	2.1		ND	20	14	60	3/30/23 22:46	SFM
Bromoform	ND	3.0	2.0		ND	31	21	60	3/30/23 22:46	SFM
Bromomethane	ND	3.0	2.0		ND	12	7.8	60	3/30/23 22:46	SFM
1,3-Butadiene	ND	3.0	2.5		ND	6.6	5.6	60	3/30/23 22:46	SFM
2-Butanone (MEK)	ND	120	32		ND	350	94	60	3/30/23 22:46	SFM
Carbon Disulfide	ND	30	2.8		ND	93	8.6	60	3/30/23 22:46	SFM
Carbon Tetrachloride	ND	3.0	2.4		ND	19	15	60	3/30/23 22:46	SFM
Chlorobenzene	ND	3.0	2.0		ND	14	9.2	60	3/30/23 22:46	SFM
Chloroethane	ND	3.0	2.7		ND	7.9	7.0	60	3/30/23 22:46	SFM
Chloroform	ND	3.0	2.8		ND	15	14	60	3/30/23 22:46	SFM
Chloromethane	ND	6.0	2.4		ND	12	4.9	60	3/30/23 22:46	SFM
Cyclohexane	ND	3.0	1.8		ND	10	6.2	60	3/30/23 22:46	SFM
Dibromochloromethane	ND	3.0	2.0		ND	26	17	60	3/30/23 22:46	SFM
1,2-Dibromoethane (EDB)	ND	3.0	1.8		ND	23	14	60	3/30/23 22:46	SFM
1,2-Dichlorobenzene	ND	3.0	1.7		ND	18	10	60	3/30/23 22:46	SFM
1,3-Dichlorobenzene	ND	3.0	1.7		ND	18	10.0	60	3/30/23 22:46	SFM
1,4-Dichlorobenzene	ND	3.0	2.0		ND	18	12	60	3/30/23 22:46	SFM
Dichlorodifluoromethane (Freon 12)	ND	3.0	2.9		ND	15	14	60	3/30/23 22:46	SFM
1,1-Dichloroethane	86	3.0	2.6		350	12	11	60	3/30/23 22:46	SFM
1,2-Dichloroethane	ND	3.0	2.7		ND	12	11	60	3/30/23 22:46	SFM
1,1-Dichloroethylene	72	3.0	2.3		290	12	9.1	60	3/30/23 22:46	SFM
cis-1,2-Dichloroethylene	7.3	3.0	2.2		29	12	8.7	60	3/30/23 22:46	SFM
trans-1,2-Dichloroethylene	ND	3.0	2.4		ND	12	9.3	60	3/30/23 22:46	SFM
1,2-Dichloropropane	ND	3.0	1.6		ND	14	7.5	60	3/30/23 22:46	SFM
cis-1,3-Dichloropropene	ND	3.0	1.6		ND	14	7.1	60	3/30/23 22:46	SFM
trans-1,3-Dichloropropene	ND	3.0	1.5		ND	14	7.0	60	3/30/23 22:46	SFM
Ethanol	ND	120	53	L-03, V-05	ND	230	100	60	3/30/23 22:46	SFM
Ethyl Acetate	ND	30	15		ND	110	55	60	3/30/23 22:46	SFM
Ethylbenzene	ND	3.0	1.8		ND	13	7.6	60	3/30/23 22:46	SFM
4-Ethyltoluene	ND	3.0	1.8		ND	15	9.1	60	3/30/23 22:46	SFM
Heptane	ND	3.0	1.9		ND	12	7.9	60	3/30/23 22:46	SFM
Hexachlorobutadiene	ND	3.0	2.5	L-03	ND	32	26	60	3/30/23 22:46	SFM
Hexane	ND	120	16		ND	420	55	60	3/30/23 22:46	SFM
2-Hexanone (MBK)	ND	3.0	1.5		ND	12	6.1	60	3/30/23 22:46	SFM
Isopropanol	ND	120	21	L-03	ND	290	51	60	3/30/23 22:46	SFM
Methyl tert-Butyl Ether (MTBE)	ND	3.0	2.3		ND	11	8.4	60	3/30/23 22:46	SFM
Methylene Chloride	ND	30	14		ND	100	48	60	3/30/23 22:46	SFM
Methyl methacrylate	ND	3.0	1.5		ND	12	6.2	60	3/30/23 22:46	SFM
4-Methyl-2-pentanone (MIBK)	ND	3.0	1.6		ND	12	6.6	60	3/30/23 22:46	SFM
Propene	ND	120	26		ND	210	45	60	3/30/23 22:46	SFM
Styrene	ND	3.0	1.6		ND	13	6.7	60	3/30/23 22:46	SFM
1,1,1,2-Tetrachloroethane	ND	5.5	2.0		ND	37	14	60	3/30/23 22:46	CMR
1,1,2,2-Tetrachloroethane	ND	3.0	1.6		ND	21	11	60	3/30/23 22:46	SFM
Tetrachloroethylene	35	3.0	2.3		240	20	16	60	3/30/23 22:46	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-6
Sample ID: 23C2112-10
Sample Matrix: Soil Gas
Sampled: 3/17/2023 12:09

Sample Description/Location:
Sub Description/Location:
Canister ID: 1713
Canister Size: 6 liter
Flow Controller ID: 4743
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -27.5
Final Vacuum(in Hg): -4.0
Receipt Vacuum(in Hg): -3.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-11

	ppbv				ug/m3				Date/Time	
Analyte	**Results**	**RL**	**MDL**	**Flag/Qual**	**Results**	**RL**	**MDL**	**Dilution**	**Analyzed**	**Analyst**
Tetrahydrofuran	ND	30	4.9		ND	88	15	60	3/30/23 22:46	SFM
Toluene	ND	3.0	1.7		ND	11	6.5	60	3/30/23 22:46	SFM
1,2,4-Trichlorobenzene	ND	3.0	2.8	L-03	ND	22	21	60	3/30/23 22:46	SFM
1,1,1-Trichloroethane	3500	15	12		19000	82	64	300	3/31/23 9:24	SFM
1,1,2-Trichloroethane	ND	3.0	2.1		ND	16	12	60	3/30/23 22:46	SFM
Trichloroethylene	1100	3.0	2.0		5700	16	11	60	3/30/23 22:46	SFM
Trichlorofluoromethane (Freon 11)	240	12	3.5		1300	67	20	60	3/30/23 22:46	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	12	3.3		ND	92	26	60	3/30/23 22:46	SFM
1,2,4-Trimethylbenzene	ND	3.0	1.3		ND	15	6.5	60	3/30/23 22:46	SFM
1,3,5-Trimethylbenzene	ND	3.0	1.6		ND	15	7.8	60	3/30/23 22:46	SFM
Vinyl Acetate	ND	60	16		ND	210	57	60	3/30/23 22:46	SFM
Vinyl Chloride	ND	3.0	2.7		ND	7.7	6.9	60	3/30/23 22:46	SFM
m&p-Xylene	ND	6.0	3.4		ND	26	15	60	3/30/23 22:46	SFM
o-Xylene	ND	3.0	1.5		ND	13	6.7	60	3/30/23 22:46	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	3/30/23 22:46
4-Bromofluorobenzene (1)	101	70-130	3/31/23 9:24
4-Bromofluorobenzene (2)	99.0	70-130	3/30/23 22:46
4-Bromofluorobenzene (2)	102	70-130	3/31/23 9:24

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-7
Sample ID: 23C2112-11
Sample Matrix: Soil Gas
Sampled: 3/17/2023 12:50

Sample Description/Location:
Sub Description/Location:
Canister ID: 1504
Canister Size: 6 liter
Flow Controller ID: 4575
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -5.0
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	ND	8.0	4.8		ND	19	11	4	3/30/23 22:07	SFM
Benzene	0.27	0.20	0.15		0.87	0.64	0.48	4	3/30/23 22:07	SFM
Benzyl chloride	ND	0.20	0.18		ND	1.0	0.91	4	3/30/23 22:07	SFM
Bromodichloromethane	ND	0.20	0.14		ND	1.3	0.94	4	3/30/23 22:07	SFM
Bromoform	ND	0.20	0.14		ND	2.1	1.4	4	3/30/23 22:07	SFM
Bromomethane	ND	0.20	0.13		ND	0.78	0.52	4	3/30/23 22:07	SFM
1,3-Butadiene	ND	0.20	0.17		ND	0.44	0.37	4	3/30/23 22:07	SFM
2-Butanone (MEK)	ND	8.0	2.1		ND	24	6.3	4	3/30/23 22:07	SFM
Carbon Disulfide	4.6	2.0	0.18		14	6.2	0.58	4	3/30/23 22:07	SFM
Carbon Tetrachloride	ND	0.20	0.16		ND	1.3	1.0	4	3/30/23 22:07	SFM
Chlorobenzene	ND	0.20	0.13		ND	0.92	0.61	4	3/30/23 22:07	SFM
Chloroethane	ND	0.20	0.18		ND	0.53	0.47	4	3/30/23 22:07	SFM
Chloroform	0.39	0.20	0.19		1.9	0.98	0.93	4	3/30/23 22:07	SFM
Chloromethane	ND	0.40	0.16		ND	0.83	0.33	4	3/30/23 22:07	SFM
Cyclohexane	ND	0.20	0.12		ND	0.69	0.42	4	3/30/23 22:07	SFM
Dibromochloromethane	ND	0.20	0.13		ND	1.7	1.1	4	3/30/23 22:07	SFM
1,2-Dibromoethane (EDB)	ND	0.20	0.12		ND	1.5	0.93	4	3/30/23 22:07	SFM
1,2-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.69	4	3/30/23 22:07	SFM
1,3-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.67	4	3/30/23 22:07	SFM
1,4-Dichlorobenzene	ND	0.20	0.13		ND	1.2	0.79	4	3/30/23 22:07	SFM
Dichlorodifluoromethane (Freon 12)	0.39	0.20	0.20		1.9	0.99	0.97	4	3/30/23 22:07	SFM
1,1-Dichloroethane	0.44	0.20	0.17		1.8	0.81	0.71	4	3/30/23 22:07	SFM
1,2-Dichloroethane	ND	0.20	0.18		ND	0.81	0.73	4	3/30/23 22:07	SFM
1,1-Dichloroethylene	ND	0.20	0.15		ND	0.79	0.60	4	3/30/23 22:07	SFM
cis-1,2-Dichloroethylene	ND	0.20	0.15		ND	0.79	0.58	4	3/30/23 22:07	SFM
trans-1,2-Dichloroethylene	0.32	0.20	0.16		1.3	0.79	0.62	4	3/30/23 22:07	SFM
1,2-Dichloropropane	ND	0.20	0.11		ND	0.92	0.50	4	3/30/23 22:07	SFM
cis-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.47	4	3/30/23 22:07	SFM
trans-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.46	4	3/30/23 22:07	SFM
Ethanol	5.3	8.0	3.5	L-03, V-05, J	9.9	15	6.6	4	3/30/23 22:07	SFM
Ethyl Acetate	ND	2.0	1.0		ND	7.2	3.6	4	3/30/23 22:07	SFM
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.51	4	3/30/23 22:07	SFM
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	3/30/23 22:07	SFM
Heptane	ND	0.20	0.13		ND	0.82	0.52	4	3/30/23 22:07	SFM
Hexachlorobutadiene	ND	0.20	0.16	L-03	ND	2.1	1.8	4	3/30/23 22:07	SFM
Hexane	ND	8.0	1.0		ND	28	3.7	4	3/30/23 22:07	SFM
2-Hexanone (MBK)	ND	0.20	0.10		ND	0.82	0.41	4	3/30/23 22:07	SFM
Isopropanol	ND	8.0	1.4	L-03	ND	20	3.4	4	3/30/23 22:07	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.15		ND	0.72	0.56	4	3/30/23 22:07	SFM
Methylene Chloride	ND	2.0	0.93		ND	6.9	3.2	4	3/30/23 22:07	SFM
Methyl methacrylate	ND	0.20	0.10		ND	0.82	0.42	4	3/30/23 22:07	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.11		ND	0.82	0.44	4	3/30/23 22:07	SFM
Propene	ND	8.0	1.8		ND	14	3.0	4	3/30/23 22:07	SFM
Styrene	ND	0.20	0.11		ND	0.85	0.45	4	3/30/23 22:07	SFM
1,1,1,2-Tetrachloroethane	ND	0.36	0.13		ND	2.5	0.91	4	3/30/23 22:07	CMR
1,1,2,2-Tetrachloroethane	ND	0.20	0.11		ND	1.4	0.74	4	3/30/23 22:07	SFM
Tetrachloroethylene	32	0.20	0.15		220	1.4	1.0	4	3/30/23 22:07	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-7
Sample ID: 23C2112-11
Sample Matrix: Soil Gas
Sampled: 3/17/2023 12:50

Sample Description/Location:
Sub Description/Location:
Canister ID: 1504
Canister Size: 6 liter
Flow Controller ID: 4575
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -28.5
Final Vacuum(in Hg): -5.0
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	25	2.0	0.33		73	5.9	0.97	4	3/30/23 22:07	SFM
Toluene	0.13	0.20	0.11	J	0.48	0.75	0.43	4	3/30/23 22:07	SFM
1,2,4-Trichlorobenzene	ND	0.20	0.19	L-03	ND	1.5	1.4	4	3/30/23 22:07	SFM
1,1,1-Trichloroethane	7.7	0.20	0.16		42	1.1	0.86	4	3/30/23 22:07	SFM
1,1,2-Trichloroethane	ND	0.20	0.14		ND	1.1	0.77	4	3/30/23 22:07	SFM
Trichloroethylene	31	0.20	0.13		160	1.1	0.72	4	3/30/23 22:07	SFM
Trichlorofluoromethane (Freon 11)	100	0.80	0.24		570	4.5	1.3	4	3/30/23 22:07	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.22		ND	6.1	1.7	4	3/30/23 22:07	SFM
1,2,4-Trimethylbenzene	ND	0.20	0.088		ND	0.98	0.43	4	3/30/23 22:07	SFM
1,3,5-Trimethylbenzene	ND	0.20	0.11		ND	0.98	0.52	4	3/30/23 22:07	SFM
Vinyl Acetate	ND	4.0	1.1		ND	14	3.8	4	3/30/23 22:07	SFM
Vinyl Chloride	0.22	0.20	0.18		0.55	0.51	0.46	4	3/30/23 22:07	SFM
m&p-Xylene	ND	0.40	0.22		ND	1.7	0.97	4	3/30/23 22:07	SFM
o-Xylene	ND	0.20	0.10		ND	0.87	0.44	4	3/30/23 22:07	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/30/23 22:07
4-Bromofluorobenzene (2)	106	70-130	3/30/23 22:07

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-Combined
Sample ID: 23C2112-12
Sample Matrix: Soil Gas
Sampled: 3/17/2023 13:34

Sample Description/Location:
Sub Description/Location:
Canister ID: 1828
Canister Size: 6 liter
Flow Controller ID: 4275
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.0
Final Vacuum(in Hg): -10.5
Receipt Vacuum(in Hg): -10.2
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	5.5	8.0	4.8	J	13	19	11	4	3/30/23 21:27	SFM
Benzene	ND	0.20	0.15		ND	0.64	0.48	4	3/30/23 21:27	SFM
Benzyl chloride	ND	0.20	0.18		ND	1.0	0.91	4	3/30/23 21:27	SFM
Bromodichloromethane	ND	0.20	0.14		ND	1.3	0.94	4	3/30/23 21:27	SFM
Bromoform	ND	0.20	0.14		ND	2.1	1.4	4	3/30/23 21:27	SFM
Bromomethane	ND	0.20	0.13		ND	0.78	0.52	4	3/30/23 21:27	SFM
1,3-Butadiene	ND	0.20	0.17		ND	0.44	0.37	4	3/30/23 21:27	SFM
2-Butanone (MEK)	ND	8.0	2.1		ND	24	6.3	4	3/30/23 21:27	SFM
Carbon Disulfide	ND	2.0	0.18		ND	6.2	0.58	4	3/30/23 21:27	SFM
Carbon Tetrachloride	ND	0.20	0.16		ND	1.3	1.0	4	3/30/23 21:27	SFM
Chlorobenzene	ND	0.20	0.13		ND	0.92	0.61	4	3/30/23 21:27	SFM
Chloroethane	ND	0.20	0.18		ND	0.53	0.47	4	3/30/23 21:27	SFM
Chloroform	ND	0.20	0.19		ND	0.98	0.93	4	3/30/23 21:27	SFM
Chloromethane	0.59	0.40	0.16		1.2	0.83	0.33	4	3/30/23 21:27	SFM
Cyclohexane	ND	0.20	0.12		ND	0.69	0.42	4	3/30/23 21:27	SFM
Dibromochloromethane	ND	0.20	0.13		ND	1.7	1.1	4	3/30/23 21:27	SFM
1,2-Dibromoethane (EDB)	ND	0.20	0.12		ND	1.5	0.93	4	3/30/23 21:27	SFM
1,2-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.69	4	3/30/23 21:27	SFM
1,3-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.67	4	3/30/23 21:27	SFM
1,4-Dichlorobenzene	ND	0.20	0.13		ND	1.2	0.79	4	3/30/23 21:27	SFM
Dichlorodifluoromethane (Freon 12)	0.38	0.20	0.20		1.9	0.99	0.97	4	3/30/23 21:27	SFM
1,1-Dichloroethane	ND	0.20	0.17		ND	0.81	0.71	4	3/30/23 21:27	SFM
1,2-Dichloroethane	ND	0.20	0.18		ND	0.81	0.73	4	3/30/23 21:27	SFM
1,1-Dichloroethylene	ND	0.20	0.15		ND	0.79	0.60	4	3/30/23 21:27	SFM
cis-1,2-Dichloroethylene	ND	0.20	0.15		ND	0.79	0.58	4	3/30/23 21:27	SFM
trans-1,2-Dichloroethylene	ND	0.20	0.16		ND	0.79	0.62	4	3/30/23 21:27	SFM
1,2-Dichloropropane	ND	0.20	0.11		ND	0.92	0.50	4	3/30/23 21:27	SFM
cis-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.47	4	3/30/23 21:27	SFM
trans-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.46	4	3/30/23 21:27	SFM
Ethanol	5.1	8.0	3.5	L-03, V-05, J	9.5	15	6.6	4	3/30/23 21:27	SFM
Ethyl Acetate	ND	2.0	1.0		ND	7.2	3.6	4	3/30/23 21:27	SFM
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.51	4	3/30/23 21:27	SFM
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	3/30/23 21:27	SFM
Heptane	ND	0.20	0.13		ND	0.82	0.52	4	3/30/23 21:27	SFM
Hexachlorobutadiene	ND	0.20	0.16	L-03	ND	2.1	1.8	4	3/30/23 21:27	SFM
Hexane	ND	8.0	1.0		ND	28	3.7	4	3/30/23 21:27	SFM
2-Hexanone (MBK)	ND	0.20	0.10		ND	0.82	0.41	4	3/30/23 21:27	SFM
Isopropanol	ND	8.0	1.4	L-03	ND	20	3.4	4	3/30/23 21:27	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.15		ND	0.72	0.56	4	3/30/23 21:27	SFM
Methylene Chloride	ND	2.0	0.93		ND	6.9	3.2	4	3/30/23 21:27	SFM
Methyl methacrylate	ND	0.20	0.10		ND	0.82	0.42	4	3/30/23 21:27	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.11		ND	0.82	0.44	4	3/30/23 21:27	SFM
Propene	ND	8.0	1.8		ND	14	3.0	4	3/30/23 21:27	SFM
Styrene	ND	0.20	0.11		ND	0.85	0.45	4	3/30/23 21:27	SFM
1,1,1,2-Tetrachloroethane	ND	0.36	0.13		ND	2.5	0.91	4	3/30/23 21:27	CMR
1,1,2,2-Tetrachloroethane	ND	0.20	0.11		ND	1.4	0.74	4	3/30/23 21:27	SFM
Tetrachloroethylene	ND	0.20	0.15		ND	1.4	1.0	4	3/30/23 21:27	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: EW-Combined
Sample ID: 23C2112-12
Sample Matrix: Soil Gas
Sampled: 3/17/2023 13:34

Sample Description/Location:
Sub Description/Location:
Canister ID: 1828
Canister Size: 6 liter
Flow Controller ID: 4275
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.0
Final Vacuum(in Hg): -10.5
Receipt Vacuum(in Hg): -10.2
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	2.0	0.33		ND	5.9	0.97	4	3/30/23 21:27	SFM
Toluene	ND	0.20	0.11		ND	0.75	0.43	4	3/30/23 21:27	SFM
1,2,4-Trichlorobenzene	ND	0.20	0.19	L-03	ND	1.5	1.4	4	3/30/23 21:27	SFM
1,1,1-Trichloroethane	0.38	0.20	0.16		2.1	1.1	0.86	4	3/30/23 21:27	SFM
1,1,2-Trichloroethane	ND	0.20	0.14		ND	1.1	0.77	4	3/30/23 21:27	SFM
Trichloroethylene	0.14	0.20	0.13	J	0.73	1.1	0.72	4	3/30/23 21:27	SFM
Trichlorofluoromethane (Freon 11)	0.34	0.80	0.24	J	1.9	4.5	1.3	4	3/30/23 21:27	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.22		ND	6.1	1.7	4	3/30/23 21:27	SFM
1,2,4-Trimethylbenzene	ND	0.20	0.088		ND	0.98	0.43	4	3/30/23 21:27	SFM
1,3,5-Trimethylbenzene	ND	0.20	0.11		ND	0.98	0.52	4	3/30/23 21:27	SFM
Vinyl Acetate	ND	4.0	1.1		ND	14	3.8	4	3/30/23 21:27	SFM
Vinyl Chloride	ND	0.20	0.18		ND	0.51	0.46	4	3/30/23 21:27	SFM
m&p-Xylene	ND	0.40	0.22		ND	1.7	0.97	4	3/30/23 21:27	SFM
o-Xylene	ND	0.20	0.10		ND	0.87	0.44	4	3/30/23 21:27	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	3/30/23 21:27
4-Bromofluorobenzene (2)	105	70-130	3/30/23 21:27

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: Post Carbon
Sample ID: 23C2112-13
Sample Matrix: Soil Gas
Sampled: 3/17/2023 13:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1755
Canister Size: 6 liter
Flow Controller ID: 4286
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -4.4
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	8.0	4.8		ND	19	11	4	3/30/23 20:46	SFM
Benzene	ND	0.20	0.15		ND	0.64	0.48	4	3/30/23 20:46	SFM
Benzyl chloride	ND	0.20	0.18		ND	1.0	0.91	4	3/30/23 20:46	SFM
Bromodichloromethane	ND	0.20	0.14		ND	1.3	0.94	4	3/30/23 20:46	SFM
Bromoform	ND	0.20	0.14		ND	2.1	1.4	4	3/30/23 20:46	SFM
Bromomethane	ND	0.20	0.13		ND	0.78	0.52	4	3/30/23 20:46	SFM
1,3-Butadiene	ND	0.20	0.17		ND	0.44	0.37	4	3/30/23 20:46	SFM
2-Butanone (MEK)	ND	8.0	2.1		ND	24	6.3	4	3/30/23 20:46	SFM
Carbon Disulfide	ND	2.0	0.18		ND	6.2	0.58	4	3/30/23 20:46	SFM
Carbon Tetrachloride	ND	0.20	0.16		ND	1.3	1.0	4	3/30/23 20:46	SFM
Chlorobenzene	ND	0.20	0.13		ND	0.92	0.61	4	3/30/23 20:46	SFM
Chloroethane	ND	0.20	0.18		ND	0.53	0.47	4	3/30/23 20:46	SFM
Chloroform	ND	0.20	0.19		ND	0.98	0.93	4	3/30/23 20:46	SFM
Chloromethane	ND	0.40	0.16		ND	0.83	0.33	4	3/30/23 20:46	SFM
Cyclohexane	ND	0.20	0.12		ND	0.69	0.42	4	3/30/23 20:46	SFM
Dibromochloromethane	ND	0.20	0.13		ND	1.7	1.1	4	3/30/23 20:46	SFM
1,2-Dibromoethane (EDB)	ND	0.20	0.12		ND	1.5	0.93	4	3/30/23 20:46	SFM
1,2-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.69	4	3/30/23 20:46	SFM
1,3-Dichlorobenzene	ND	0.20	0.11		ND	1.2	0.67	4	3/30/23 20:46	SFM
1,4-Dichlorobenzene	ND	0.20	0.13		ND	1.2	0.79	4	3/30/23 20:46	SFM
Dichlorodifluoromethane (Freon 12)	ND	0.20	0.20		ND	0.99	0.97	4	3/30/23 20:46	SFM
1,1-Dichloroethane	1.6	0.20	0.17		6.5	0.81	0.71	4	3/30/23 20:46	SFM
1,2-Dichloroethane	ND	0.20	0.18		ND	0.81	0.73	4	3/30/23 20:46	SFM
1,1-Dichloroethylene	0.76	0.20	0.15		3.0	0.79	0.60	4	3/30/23 20:46	SFM
cis-1,2-Dichloroethylene	0.82	0.20	0.15		3.3	0.79	0.58	4	3/30/23 20:46	SFM
trans-1,2-Dichloroethylene	ND	0.20	0.16		ND	0.79	0.62	4	3/30/23 20:46	SFM
1,2-Dichloropropane	ND	0.20	0.11		ND	0.92	0.50	4	3/30/23 20:46	SFM
cis-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.47	4	3/30/23 20:46	SFM
trans-1,3-Dichloropropene	ND	0.20	0.10		ND	0.91	0.46	4	3/30/23 20:46	SFM
Ethanol	6.3	8.0	3.5	L-03, V-05, J	12	15	6.6	4	3/30/23 20:46	SFM
Ethyl Acetate	ND	2.0	1.0		ND	7.2	3.6	4	3/30/23 20:46	SFM
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.51	4	3/30/23 20:46	SFM
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	3/30/23 20:46	SFM
Heptane	ND	0.20	0.13		ND	0.82	0.52	4	3/30/23 20:46	SFM
Hexachlorobutadiene	ND	0.20	0.16	L-03	ND	2.1	1.8	4	3/30/23 20:46	SFM
Hexane	ND	8.0	1.0		ND	28	3.7	4	3/30/23 20:46	SFM
2-Hexanone (MBK)	ND	0.20	0.10		ND	0.82	0.41	4	3/30/23 20:46	SFM
Isopropanol	ND	8.0	1.4	L-03	ND	20	3.4	4	3/30/23 20:46	SFM
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.15		ND	0.72	0.56	4	3/30/23 20:46	SFM
Methylene Chloride	ND	2.0	0.93		ND	6.9	3.2	4	3/30/23 20:46	SFM
Methyl methacrylate	ND	0.20	0.10		ND	0.82	0.42	4	3/30/23 20:46	SFM
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.11		ND	0.82	0.44	4	3/30/23 20:46	SFM
Propene	ND	8.0	1.8		ND	14	3.0	4	3/30/23 20:46	SFM
Styrene	ND	0.20	0.11		ND	0.85	0.45	4	3/30/23 20:46	SFM
1,1,1,2-Tetrachloroethane	ND	0.36	0.13		ND	2.5	0.91	4	3/30/23 20:46	CMR
1,1,2,2-Tetrachloroethane	ND	0.20	0.11		ND	1.4	0.74	4	3/30/23 20:46	SFM
Tetrachloroethylene	ND	0.20	0.15		ND	1.4	1.0	4	3/30/23 20:46	SFM

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ANALYTICAL RESULTS

Project Location: Providence, RI
Date Received: 3/20/2023
Field Sample #: Post Carbon
Sample ID: 23C2112-13
Sample Matrix: Soil Gas
Sampled: 3/17/2023 13:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1755
Canister Size: 6 liter
Flow Controller ID: 4286
Sample Type: 30 min

Work Order: 23C2112
Initial Vacuum(in Hg): -29.5
Final Vacuum(in Hg): -5.0
Receipt Vacuum(in Hg): -4.4
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	ND	2.0	0.33		ND	5.9	0.97	4	3/30/23 20:46	SFM
Toluene	ND	0.20	0.11		ND	0.75	0.43	4	3/30/23 20:46	SFM
1,2,4-Trichlorobenzene	ND	0.20	0.19	L-03	ND	1.5	1.4	4	3/30/23 20:46	SFM
1,1,1-Trichloroethane	ND	0.20	0.16		ND	1.1	0.86	4	3/30/23 20:46	SFM
1,1,2-Trichloroethane	ND	0.20	0.14		ND	1.1	0.77	4	3/30/23 20:46	SFM
Trichloroethylene	ND	0.20	0.13		ND	1.1	0.72	4	3/30/23 20:46	SFM
Trichlorofluoromethane (Freon 11)	5.3	0.80	0.24		30	4.5	1.3	4	3/30/23 20:46	SFM
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.22		ND	6.1	1.7	4	3/30/23 20:46	SFM
1,2,4-Trimethylbenzene	ND	0.20	0.088		ND	0.98	0.43	4	3/30/23 20:46	SFM
1,3,5-Trimethylbenzene	ND	0.20	0.11		ND	0.98	0.52	4	3/30/23 20:46	SFM
Vinyl Acetate	ND	4.0	1.1		ND	14	3.8	4	3/30/23 20:46	SFM
Vinyl Chloride	ND	0.20	0.18		ND	0.51	0.46	4	3/30/23 20:46	SFM
m&p-Xylene	ND	0.40	0.22		ND	1.7	0.97	4	3/30/23 20:46	SFM
o-Xylene	ND	0.20	0.10		ND	0.87	0.44	4	3/30/23 20:46	SFM

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	3/30/23 20:46
4-Bromofluorobenzene (2)	103	70-130	3/30/23 20:46

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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
23C2112-01 [IA-1]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-02 [IA-2]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-03 [IA-3]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-04 [IA-4]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-05 [IA-5]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-06 [IA-6]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-07 [IA-7]	B335780	1.5	1	N/A	1000	400	855	03/28/23
23C2112-08 [AA-1]	B335780	1.5	1	N/A	1000	400	855	03/28/23

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
23C2112-09 [EW-5]	B335829	1.5	1	N/A	1000	400	10	03/30/23
23C2112-09RE1 [EW-5]	B335829	1.5	200	5	1000	400	400	03/30/23
23C2112-10 [EW-6]	B335829	1.5	1	N/A	1000	400	10	03/30/23
23C2112-10RE1 [EW-6]	B335829	1.5	200	5	1000	400	400	03/30/23
23C2112-11 [EW-7]	B335829	1.5	1	N/A	1000	400	150	03/30/23
23C2112-12 [EW-Combined]	B335829	2	1	N/A	1000	400	200	03/30/23
23C2112-13 [Post Carbon]	B335829	1.5	1	N/A	1000	400	150	03/30/23

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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 B335780 - TO-15 Prep											
Blank (B335780-BLK1)					Prepared & Analyzed: 03/28/23						
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									
Ethylbenzene	ND	0.020									
4-Ethyltoluene	ND	0.020									
Heptane	ND	0.020									
Hexachlorobutadiene	ND	0.020									
Hexane	ND	0.80									
2-Hexanone (MBK)	ND	0.020									
Isopropanol	ND	0.80									
Methyl tert-Butyl Ether (MTBE)	ND	0.020									
Methylene Chloride	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									V-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 B335780 - TO-15 Prep											
Blank (B335780-BLK1)					Prepared & Analyzed: 03/28/23						
Tetrachloroethylene	ND	0.020									
Tetrahydrofuran	ND	0.20									
Toluene	ND	0.020									
1,2,4-Trichlorobenzene	ND	0.020									
1,1,1-Trichloroethane	ND	0.020									
1,1,2-Trichloroethane	ND	0.020									
Trichloroethylene	ND	0.020									
Trichlorofluoromethane (Freon 11)	ND	0.080									
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)	*8.00*				*8.00*		*100*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*7.97*				*8.00*		*99.6*	*70-130*			
LCS (B335780-BS1)					Prepared & Analyzed: 03/28/23						
Acetone	5.02				5.00		100	70-130			
Benzene	4.98				5.00		99.7	70-130			
Benzyl chloride	5.47				5.00		109	70-130			
Bromodichloromethane	4.92				5.00		98.3	70-130			
Bromoform	4.66				5.00		93.3	70-130			
Bromomethane	4.61				5.00		92.1	70-130			
1,3-Butadiene	4.40				5.00		88.0	70-130			
2-Butanone (MEK)	4.82				5.00		96.4	70-130			
Carbon Disulfide	4.91				5.00		98.2	70-130			
Carbon Tetrachloride	4.23				5.00		84.7	70-130			
Chlorobenzene	4.86				5.00		97.2	70-130			
Chloroethane	4.94				5.00		98.9	70-130			
Chloroform	4.90				5.00		97.9	70-130			
Chloromethane	4.36				5.00		87.3	70-130			
Cyclohexane	5.02				5.00		100	70-130			
Dibromochloromethane	4.93				5.00		98.6	70-130			
1,2-Dibromoethane (EDB)	4.83				5.00		96.6	70-130			
1,2-Dichlorobenzene	4.79				5.00		95.8	70-130			
1,3-Dichlorobenzene	5.05				5.00		101	70-130			
1,4-Dichlorobenzene	4.97				5.00		99.4	70-130			
Dichlorodifluoromethane (Freon 12)	4.68				5.00		93.5	70-130			
1,1-Dichloroethane	5.07				5.00		101	70-130			
1,2-Dichloroethane	4.99				5.00		99.8	70-130			
1,1-Dichloroethylene	4.90				5.00		98.1	70-130			
cis-1,2-Dichloroethylene	4.66				5.00		93.1	70-130			
trans-1,2-Dichloroethylene	4.72				5.00		94.4	70-130			
1,2-Dichloropropane	5.20				5.00		104	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 B335780 - TO-15 Prep											
LCS (B335780-BS1)					Prepared & Analyzed: 03/28/23						
cis-1,3-Dichloropropene	4.79				5.00		95.7	70-130			
trans-1,3-Dichloropropene	4.90				5.00		98.0	70-130			
Ethanol	3.77				5.00		75.3	70-130			
Ethyl Acetate	5.04				5.00		101	70-130			
Ethylbenzene	4.96				5.00		99.3	70-130			
4-Ethyltoluene	5.13				5.00		103	70-130			
Heptane	5.25				5.00		105	70-130			
Hexachlorobutadiene	4.47				5.00		89.4	70-130			
Hexane	5.25				5.00		105	70-130			
2-Hexanone (MBK)	5.20				5.00		104	70-130			
Isopropanol	3.98				5.00		79.6	70-130			
Methyl tert-Butyl Ether (MTBE)	4.62				5.00		92.4	70-130			
Methylene Chloride	4.39				5.00		87.8	70-130			
Methyl methacrylate	4.82				5.00		96.3	70-130			
4-Methyl-2-pentanone (MIBK)	5.19				5.00		104	70-130			
Propene	4.49				5.00		89.8	70-130			
Styrene	4.99				5.00		99.9	70-130			
1,1,2,2-Tetrachloroethane	4.96				5.00		99.1	70-130			
Tetrachloroethylene	4.72				5.00		94.3	70-130			
Tetrahydrofuran	4.84				5.00		96.7	70-130			
Toluene	4.89				5.00		97.7	70-130			
1,2,4-Trichlorobenzene	4.03				5.00		80.6	70-130			
1,1,1-Trichloroethane	4.83				5.00		96.6	70-130			
1,1,2-Trichloroethane	5.08				5.00		102	70-130			
Trichloroethylene	5.10				5.00		102	70-130			
Trichlorofluoromethane (Freon 11)	4.80				5.00		96.0	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.69				5.00		93.8	70-130			
1,2,4-Trimethylbenzene	5.12				5.00		102	70-130			
1,3,5-Trimethylbenzene	5.23				5.00		105	70-130			
Vinyl Acetate	3.86				5.00		77.3	70-130			
Vinyl Chloride	4.70				5.00		93.9	70-130			
m&p-Xylene	10.4				10.0		104	70-130			
o-Xylene	5.26				5.00		105	70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.20*				*8.00*		*102*	*70-130*			

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 B335780 - TO-15 Prep											
LCS (B335780-BS2)					Prepared & Analyzed: 03/28/23						
1,1,1,2-Tetrachloroethane	0.813				0.910		89.3	70-130			V-05
Surrogate: 4-Bromofluorobenzene (2)	*7.78*				*8.00*		*97.2*	*70-130*			
Duplicate (B335780-DUP1)			**Source: 23C2112-06**		Prepared: 03/28/23 Analyzed: 03/29/23						
Acetone	4.5	1.4	11	3.3		4.4			1.03	25	
Benzene	0.17	0.035	0.53	0.11		0.17			0.421	25	
Benzyl chloride	ND	0.035	ND	0.18		ND				25	
Bromodichloromethane	ND	0.035	ND	0.24		ND				25	
Bromoform	ND	0.035	ND	0.36		ND				25	
Bromomethane	ND	0.035	ND	0.14		ND				25	
1,3-Butadiene	ND	0.035	ND	0.078		ND				25	
2-Butanone (MEK)	0.38	1.4	1.1	4.1		0.38			0.186	25	J
Carbon Disulfide	ND	0.35	ND	1.1		ND				25	
Carbon Tetrachloride	0.073	0.035	0.46	0.22		0.074			0.957	25	
Chlorobenzene	ND	0.035	ND	0.16		ND				25	
Chloroethane	ND	0.035	ND	0.093		ND				25	
Chloroform	ND	0.035	ND	0.17		ND				25	
Chloromethane	0.51	0.070	1.1	0.14		0.51			0.411	25	
Cyclohexane	ND	0.035	ND	0.12		ND				25	
Dibromochloromethane	ND	0.035	ND	0.30		ND				25	
1,2-Dibromoethane (EDB)	ND	0.035	ND	0.27		ND				25	
1,2-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
1,3-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
1,4-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
Dichlorodifluoromethane (Freon 12)	0.21	0.035	1.0	0.17		0.22			4.56	25	
1,1-Dichloroethane	ND	0.035	ND	0.14		ND				25	
1,2-Dichloroethane	ND	0.035	ND	0.14		ND				25	
1,1-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
cis-1,2-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
trans-1,2-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
1,2-Dichloropropane	ND	0.035	ND	0.16		ND				25	
cis-1,3-Dichloropropene	ND	0.035	ND	0.16		ND				25	
trans-1,3-Dichloropropene	ND	0.035	ND	0.16		ND				25	
Ethanol	6.9	1.4	13	2.6		6.8			1.54	25	
Ethyl Acetate	ND	0.35	ND	1.3		ND				25	
Ethylbenzene	0.023	0.035	0.10	0.15		0.023			0.00	25	J
4-Ethyltoluene	ND	0.035	ND	0.17		ND				25	
Heptane	0.035	0.035	0.14	0.14		0.036			1.98	25	
Hexachlorobutadiene	ND	0.035	ND	0.37		ND				25	
Hexane	ND	1.4	ND	4.9		ND				25	
2-Hexanone (MBK)	0.039	0.035	0.16	0.14		0.038			3.64	25	
Isopropanol	0.57	1.4	1.4	3.4		0.57			0.370	25	J
Methyl tert-Butyl Ether (MTBE)	ND	0.035	ND	0.13		ND				25	
Methylene Chloride	ND	0.35	ND	1.2		ND				25	
Methyl methacrylate	ND	0.035	ND	0.14		ND				25	
4-Methyl-2-pentanone (MIBK)	0.020	0.035	0.083	0.14		0.022			6.67	25	J
Propene	ND	1.4	ND	2.4		ND				25	

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 B335780 - TO-15 Prep											
Duplicate (B335780-DUP1)			**Source: 23C2112-06**		Prepared: 03/28/23 Analyzed: 03/29/23						
Styrene	ND	0.035	ND	0.15		ND				25	
1,1,1,2-Tetrachloroethane	ND	0.064	ND	0.44		ND				25	V-05
1,1,2,2-Tetrachloroethane	ND	0.035	ND	0.24		ND				25	
Tetrachloroethylene	0.062	0.035	0.42	0.24		0.060			2.30	25	
Tetrahydrofuran	ND	0.35	ND	1.0		ND				25	
Toluene	0.16	0.035	0.61	0.13		0.16			1.75	25	
1,2,4-Trichlorobenzene	ND	0.035	ND	0.26		ND				25	
1,1,1-Trichloroethane	0.84	0.035	4.6	0.19		0.84			0.750	25	
1,1,2-Trichloroethane	ND	0.035	ND	0.19		ND				25	
Trichloroethylene	0.094	0.035	0.51	0.19		0.092			2.26	25	
Trichlorofluoromethane (Freon 11)	0.32	0.14	1.8	0.79		0.32			1.11	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.058	0.14	0.45	1.1		0.055			4.94	25	J
1,2,4-Trimethylbenzene	0.030	0.035	0.15	0.17		0.027			9.76	25	J
1,3,5-Trimethylbenzene	ND	0.035	ND	0.17		ND				25	
Vinyl Acetate	0.28	0.70	0.99	2.5		0.29			2.71	25	J
Vinyl Chloride	ND	0.035	ND	0.090		ND				25	
m&p-Xylene	0.065	0.070	0.28	0.30		0.062			5.52	25	J
o-Xylene	0.028	0.035	0.12	0.15		0.029			4.88	25	J
Surrogate: 4-Bromofluorobenzene (1)	*8.23*				*8.00*		*103*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*8.34*				*8.00*		*104*	*70-130*			
Batch B335829 - TO-15 Prep											
Blank (B335829-BLK1)					Prepared & Analyzed: 03/30/23						
Acetone	ND	1.4									
Benzene	ND	0.035									
Benzyl chloride	ND	0.035									
Bromodichloromethane	ND	0.035									
Bromoform	ND	0.035									
Bromomethane	ND	0.035									
1,3-Butadiene	ND	0.035									
2-Butanone (MEK)	ND	1.4									
Carbon Disulfide	ND	0.35									
Carbon Tetrachloride	ND	0.035									
Chlorobenzene	ND	0.035									
Chloroethane	ND	0.035									
Chloroform	ND	0.035									
Chloromethane	ND	0.070									
Cyclohexane	ND	0.035									
Dibromochloromethane	ND	0.035									
1,2-Dibromoethane (EDB)	ND	0.035									
1,2-Dichlorobenzene	ND	0.035									
1,3-Dichlorobenzene	ND	0.035									
1,4-Dichlorobenzene	ND	0.035									
Dichlorodifluoromethane (Freon 12)	ND	0.035									
1,1-Dichloroethane	ND	0.035									

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 B335829 - TO-15 Prep											
Blank (B335829-BLK1)					Prepared & Analyzed: 03/30/23						
1,2-Dichloroethane	ND	0.035									
1,1-Dichloroethylene	ND	0.035									
cis-1,2-Dichloroethylene	ND	0.035									
trans-1,2-Dichloroethylene	ND	0.035									
1,2-Dichloropropane	ND	0.035									
cis-1,3-Dichloropropene	ND	0.035									
trans-1,3-Dichloropropene	ND	0.035									
Ethanol	ND	1.4									L-03, V-05
Ethyl Acetate	ND	0.35									
Ethylbenzene	ND	0.035									
4-Ethyltoluene	ND	0.035									
Heptane	ND	0.035									
Hexachlorobutadiene	ND	0.035									L-03
Hexane	ND	1.4									
2-Hexanone (MBK)	ND	0.035									
Isopropanol	ND	1.4									L-03
Methyl tert-Butyl Ether (MTBE)	ND	0.035									
Methylene Chloride	ND	0.35									
Methyl methacrylate	ND	0.035									
4-Methyl-2-pentanone (MIBK)	ND	0.035									
Propene	ND	1.4									
Styrene	ND	0.035									
1,1,1,2-Tetrachloroethane	ND	0.064									
1,1,2,2-Tetrachloroethane	ND	0.035									
Tetrachloroethylene	ND	0.035									
Tetrahydrofuran	ND	0.35									
Toluene	ND	0.035									
1,2,4-Trichlorobenzene	ND	0.035									L-03
1,1,1-Trichloroethane	ND	0.035									
1,1,2-Trichloroethane	ND	0.035									
Trichloroethylene	ND	0.035									
Trichlorofluoromethane (Freon 11)	ND	0.14									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14									
1,2,4-Trimethylbenzene	ND	0.035									
1,3,5-Trimethylbenzene	ND	0.035									
Vinyl Acetate	ND	0.70									
Vinyl Chloride	ND	0.035									
m&p-Xylene	ND	0.070									
o-Xylene	ND	0.035									
Surrogate: 4-Bromofluorobenzene (1)	*8.22*				*8.00*		*103*	*70-130*			
Surrogate: 4-Bromofluorobenzene (2)	*8.36*				*8.00*		*105*	*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 B335829 - TO-15 Prep												
LCS (B335829-BS1)					Prepared & Analyzed: 03/30/23							
Acetone	4.21				5.00		84.2		70-130			
Benzene	4.51				5.00		90.1		70-130			
Benzyl chloride	4.48				5.00		89.6		70-130			
Bromodichloromethane	4.51				5.00		90.2		70-130			
Bromoform	4.32				5.00		86.5		70-130			
Bromomethane	4.17				5.00		83.4		70-130			
1,3-Butadiene	3.95				5.00		78.9		70-130			
2-Butanone (MEK)	4.14				5.00		82.8		70-130			
Carbon Disulfide	4.52				5.00		90.4		70-130			
Carbon Tetrachloride	4.74				5.00		94.8		70-130			
Chlorobenzene	4.24				5.00		84.7		70-130			
Chloroethane	4.47				5.00		89.4		70-130			
Chloroform	4.52				5.00		90.5		70-130			
Chloromethane	3.88				5.00		77.6		70-130			
Cyclohexane	4.50				5.00		90.0		70-130			
Dibromochloromethane	4.49				5.00		89.9		70-130			
1,2-Dibromoethane (EDB)	4.21				5.00		84.2		70-130			
1,2-Dichlorobenzene	3.86				5.00		77.1		70-130			
1,3-Dichlorobenzene	4.23				5.00		84.7		70-130			
1,4-Dichlorobenzene	4.13				5.00		82.6		70-130			
Dichlorodifluoromethane (Freon 12)	4.38				5.00		87.6		70-130			
1,1-Dichloroethane	4.61				5.00		92.2		70-130			
1,2-Dichloroethane	4.64				5.00		92.7		70-130			
1,1-Dichloroethylene	4.48				5.00		89.5		70-130			
cis-1,2-Dichloroethylene	4.28				5.00		85.7		70-130			
trans-1,2-Dichloroethylene	4.40				5.00		87.9		70-130			
1,2-Dichloropropane	4.64				5.00		92.9		70-130			
cis-1,3-Dichloropropene	4.30				5.00		86.0		70-130			
trans-1,3-Dichloropropene	4.29				5.00		85.8		70-130			
Ethanol	3.01				5.00		**60.2**	*	70-130			L-03, V-05
Ethyl Acetate	4.45				5.00		89.0		70-130			
Ethylbenzene	4.31				5.00		86.1		70-130			
4-Ethyltoluene	4.33				5.00		86.6		70-130			
Heptane	4.72				5.00		94.3		70-130			
Hexachlorobutadiene	3.27				5.00		**65.4**	*	70-130			L-03
Hexane	4.84				5.00		96.8		70-130			
2-Hexanone (MBK)	4.40				5.00		88.1		70-130			
Isopropanol	3.28				5.00		**65.6**	*	70-130			L-03
Methyl tert-Butyl Ether (MTBE)	4.05				5.00		81.1		70-130			
Methylene Chloride	4.03				5.00		80.5		70-130			
Methyl methacrylate	4.14				5.00		82.8		70-130			
4-Methyl-2-pentanone (MIBK)	4.41				5.00		88.1		70-130			
Propene	3.99				5.00		79.7		70-130			
Styrene	4.24				5.00		84.8		70-130			
1,1,2,2-Tetrachloroethane	4.23				5.00		84.6		70-130			
Tetrachloroethylene	4.17				5.00		83.3		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 B335829 - TO-15 Prep												
LCS (B335829-BS1)					Prepared & Analyzed: 03/30/23							
Tetrahydrofuran	4.18				5.00		83.6		70-130			
Toluene	4.37				5.00		87.4		70-130			
1,2,4-Trichlorobenzene	2.76				5.00		**55.2**	*	70-130			L-03
1,1,1-Trichloroethane	4.38				5.00		87.5		70-130			
1,1,2-Trichloroethane	4.42				5.00		88.4		70-130			
Trichloroethylene	4.52				5.00		90.4		70-130			
Trichlorofluoromethane (Freon 11)	4.25				5.00		85.1		70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.25				5.00		84.9		70-130			
1,2,4-Trimethylbenzene	4.19				5.00		83.8		70-130			
1,3,5-Trimethylbenzene	4.40				5.00		88.0		70-130			
Vinyl Acetate	3.69				5.00		73.8		70-130			
Vinyl Chloride	4.21				5.00		84.2		70-130			
m&p-Xylene	9.06				10.0		90.6		70-130			
o-Xylene	4.51				5.00		90.3		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.32*				*8.00*		*104*		*70-130*			
LCS (B335829-BS2)					Prepared & Analyzed: 03/30/23							
1,1,1,2-Tetrachloroethane	0.739				0.910		81.2		70-130			
Surrogate: 4-Bromofluorobenzene (2)	*8.07*				*8.00*		*101*		*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.
RL-11	Elevated reporting limit due to high concentration of target compounds.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

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ANALYST

SFM	Sandra F Mateega
RLF	Rebecca Faust
KKM	Kerry K. McGee
EGR	Evett G Rivera
CMR	Catherine M. Rouleau

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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
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 - ISO 17025:2017	100033	03/1/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NJ	New Jersey DEP	MA007 NELAP	06/30/2023
FL	Florida Department of Health	E871027 NELAP	06/30/2023
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2023

Pace Analytical®

23C2112

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CHAIN OF CUSTODY RECORD (AIR)

DOC #378 REV3_11232021

39 Spruce Street
East Longmeadow, MA 01028

Company Name: WSP
Address: 100 Apollo Dr Chelmsford, MA
Phone: (951) 312-8156
Project Name:
Project Location: Providence, RI
Project Number: 36522106306.0005
Project Manager: Mykel Mendes
Pace Quote Name/Number:
Invoice Recipient:
Sampled By: Ryan Thibault

Requested Turnaround Time
7-Day ☑ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To: Mykel.Mendes@wsp.com
Fax To #:

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

ANALYSIS REQUESTED

Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	Flow Rate (m³/min / L/min)	Matrix Code	Volume (☑ Liters / m³)	TO-15				Initial Pressure ("Hg)	Final Pressure ("Hg)	Lab Receipt Pressure ("Hg)	Summa Can ID	Flow Controller ID
1	IA-1	3/17 1042	3/17 1112	30min		IA	6L	X				-28.5	-6.5	3.9	2058	4583
2	IA-2	3/17 1019	3/17 1049	30min		IA	↓	X				-27.5	-4.5	3.4	1804	4562
3	IA-3	3/17 1040	3/17 1110	30min		IA	↓	X				-30.0	-5.0	4.6	1272	4371
4	IA-4	3/17 1020	3/17 1050	30min		IA	↓	X				-28.0	-5.0	3.9	1244	4561
5	IA-5	3/17 1142	3/17 1212	30min		IA	↓	X				-29.5	-6.0	4.6	1722	4555
6	IA-6	3/17 1135	3/17 1205	30min		IA	↓	X				-28.0	-5.0	3.6	2164	4742
7	IA-7	3/17 1202	3/17 1232	30min		IA	↓	X				-28.5	-5.0	4.6	2170	4556
8	AA-1	3/17 1225	3/17 1255	30min		AMB	↓	X				-23.5	-5.5	4.1	2197	4576
9	EW-5	3/17 1038	3/17 1108	30min		SG	6L	X				-28.0	-9.0	7.7	2182	4584

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______

Signature	Date/Time
Relinquished by: (signature) Mykel Mendes	3/20/23 / 0926
Received by: (signature) Paul Chattinay	3-20-23 926
Relinquished by: (signature) Paul Chattinay	3-20-23 13
Received by: (signature) D. Bellut	3-20-23 1336
Relinquished by: (signature) D. Bellut	3-20-23 1640
Received by: (signature) [illegible]	3/20/23 1640

Detection Limit Requirements
MA:
CT: 30
Other:

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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DOC #378 REV3_11232021

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Company Name:	WSP
Address:	100 Apollo Dr. Chelmsford, MA
Phone:	(951) 312-8756
Project Name:	Textron Gorham
Project Location:	Providence, RI
Project Number:	36522103 06.0005
Project Manager:	Mykel Mendes
Pace Quote Name/Number:	
Invoice Recipient:	
Sampled By:	Ryan Thibault

Requested Turnaround Time
7-Day ☑ 10-Day ☐
Due Date:

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To: Mykel.Mendes@
Fax To #: WSP.com

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume					" Hg			Please fill out completely, sign, date and retain the yellow copy for your records	
Pace Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	☐ m³/min ☐ L/min	Code	☒ Liters ☐ m³	5-10L				Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
10	EW-6	3/17 1139	3/17 1209	30min		SG	6L	X				-27.5	-4.0	-3.7	1713	4743
11	EW-7	3/17 1220	3/17 1250	30min		SG	↓	X				-28.5	-5.0	-4.6	1504	4575
12	EW-combined	3/17 1309	3/17 1339	30min		SG	↓	X				-29.0	-10.5	-10.2	1828	4275
13	Post Carbon	3/17 1300	3/17 1330	30min		SG	6L	X				-29.5	-5.0	-4.4	1755	4286

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

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)	Mykel Mendes	Date/Time: 3/20/23 1092
Received by: (signature)	Paul Chartoney	Date/Time: 3-20-23 906
Relinquished by: (signature)	Paul Chartoney	Date/Time: 3-20-23 13
Received by: (signature)	Dan Bellatti	Date/Time: 3/20/23 1334
Relinquished by: (signature)	Dan Bellatti	Date/Time: 3/20/23 1540
Received by: (signature)		Date/Time: 3/20/23 1640

Detection Limit Requirements
MA
CT
Other

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ Other

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

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

39 Spruce St.
East Longmeadow, MA. 01028
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F:413-525-6405
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Log In Back-Sheet

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy) Any False statement will be brought to the attention of the Client – True or False

Pace PEOPLE ADVANCING SCIENCE

Client WSP

Project —

MCP/RCP Required —

Deliverable Package Requirement —

Location Providence, RI

PWSID# (When Applicable) —

Arrival Method Courier

Received By / Date / Time MEM 3-20-23 1640

Back-Sheet By / Date / Time TPH 3-23-23 1230

Temperature Method _____ # _____

Temp < 6° C ☐ Actual Temperature _____

Rush Samples: Yes / (No) _____ Notify _____

Short Hold: Yes / (No) _____ Notify _____

Notes regarding Samples/COC outside of SOP:

	True	False
Received on Ice	☐	☒
Received in Cooler	☐	☒
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Individually Certified Cans	☐	☒
Trip Blanks	☐	☒
COC Legible	☒	☐

COC Included: (Check all included)

Client ☒ Analysis ☒ Sampler Name ☒

Project ☒ IDs ☒ Collection Date/Time ☒

Container	#	Size	Regulator	Duration	Accessories			
Summa Cans	13	6L	13	30min	Nut/Ferrule	5	IC Train	
Tedlar Bags					Tubing	2of4		
TO-17 Tubes					T-Connector		Shipping Charges	
Radiello					Syringe			
Pufs/ TO-11					Tedlar			

Can #'s								Regs #'s							
1	2058	8	2197	16		24		1	4583	8	4576	16		24	
2	1804	9	2182	17		25		2	4562	9	4584	17		25	
3	PD72	10	1713	18		26		3	4371	10	4743	18		26	
4	1244	11	1504	19		27		4	4561	11	4575	19		27	
5	1722	12	1828	20		28		5	4555	12	4275	20		28	
6	2164	13	1755	21		29		6	4742	13	4286	21		29	
7	2170	14		22		30		7	4556	14		22		30	
Unused Media		15		23		31		Pufs/TO-17's		15		23		31	
1		8		16		24		1		8		16		24	
2		9		17		25		2		9		17		25	
3		10		18		26		3		10		18		26	
4		11		19		27		4		11		19		27	
5		12		20		28		5		12		20		28	
6		13		21		29		6		13		21		29	
7		14		22		30		7		14		22		30	
		15		23		31				15		23			

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	0.11 U	0.23 U	0.11 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	0.22 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	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	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
Total VOCs	ug/m3	27.37	29.25	48.15	127.99	24.71	29.41	45.06	8.03	58.19	30.24	35.83	30.79	30.17	19.22	57.01	30.59	19.71	27.31	26.56	15.89	25.24	25.58	35.22	31.83
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
-- Compound not analyzed.

Prepared By: AKN, 412/2023
Checked By: MM, 4/12/2023

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	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	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	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	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	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	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	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	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	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
Total VOCs	ug/m3	75.04	15	70.04	20.68	32.79	17.52	21.72	28.38	30.96	8.402	36.922	48.31	74.3	29.54	38.48	26.39	53.81	34.073	18.98	21.64	21.54	44.492	41.78	12
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
-- Compound not analyzed.

Prepared By: AKN, 412/2023
Checked By: MM, 4/12/2023

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	AA-1	AA-1	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	3/29/2022	9/15/2022	3/17/2023
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	0.44 U	0.44 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	0.19 U	0.51	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	0.24 U	0.24 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	0.19 U	0.19 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	0.14 U	0.14 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	0.14 U	0.14 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	0.52 U	0.26 U	0.26 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	0.15 J	0.17 U	0.15 J
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	0.27 U	0.27 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	0.21 U	0.21 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	0.14 U	0.14 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	0.16 U	0.16 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	0.17 U	0.17 U	0.17 U
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	0.077 U	0.077 U	0.078 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	0.21 U	0.21 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	0.21 U	0.21 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	4.1 U	1.6 J	4.1 U
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	0.29 U	0.14 U	0.17
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	0.17 U	0.17 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	0.14 U	0.14 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	5.2	8.3	6.7
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	0.39	0.15	0.37
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	0.18 U	0.36 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	0.23 U	0.23 U	0.24 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	0.36 U	0.36 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	0.14 U	0.14 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	1.1 U	1.1 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	0.22 U	0.61	0.45
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	0.16 U	0.16 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	0.092 U	0.092 U	0.093 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	0.17 U	0.17 U	0.17 U
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	1.3	1.2	0.97
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	0.14 U	0.14 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	0.16 U	0.16 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	0.12 U	0.12 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	0.3 U	0.3 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	2.1	2.5	1.1
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	3.3	5.5	4.5
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	1.3 U	1.3 U	1.7
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	0.15 U	0.15 U	0.15 U
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	0.37 U	0.37 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	4.9 U	0.96 J	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	0.74 J	3.4 U	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	0.19 J	0.3 U	0.3 U
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	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	1.2 U	1.2 U	1.2 U
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	0.13 U	0.13 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	0.14 U	0.14 U	0.14 U
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	0.082 J	0.15 U	0.15 U
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	2.4 U	2.4 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	0.15 U	0.15 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	0.24 U	0.24 U	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	1 U	0.49 J	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	0.21	0.29	0.23
Total VOCs	ug/m3	40.72	9.36	30.47	38.15	13.76	40.95	16.87	18.06	20.61	21.069	43.63	37.921	28.897	15.382	24.13	17.88
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	0.14 U	0.14 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	0.16 U	0.16 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	0.19 U	0.2	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	1.1	1.3	1.1
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	0.62 J	0.52 J	0.44 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	2.5 U	2.5 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	0.089 U	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 412/2023
Checked By: MM, 4/12/2023

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
Total VOCs	ug/m3	NA	706.03	43.59	647.14	183.56	107.21	49.04	74.43	212.99	590.37	93.4	83.1	52.93	91.17	205.14	17.03	44.18	49.87	45.48	83.11	33.35	68.11	40.93	8.992
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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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
Total VOCs	ug/m3	NA	23.332	52.57	46.32	53.21	49.56	64.33	362.523	24.72	43.13	53.51	52.305	44.34	17.24	71.29	13.61	173.56	35.54	91	44.49	42.57	40.86	109.869	135.866
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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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				Small Center Retail Space																		
Location:			IA-5				IA-6																		
Sample ID:			IA-5	IA-5	IA-5	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
Sample Date:			9/8/2021	3/29/2022	9/15/2022	3/17/2023	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
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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.28	0.19 U	5.4	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	3.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17	0.17 U	0.15 J	0.083 J	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 J
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 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	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.38	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.059 J
1,3-Butadiene	ug/m3	NA	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.2 J	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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--
2-Butanone	ug/m3	500	1.7 J	4.1 U	1.2 J	4.1 U	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
2-Hexanone	ug/m3	NA	0.29 U	0.29 U	0.14 U	0.14 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
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.47	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	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
Acetone	ug/m3	500	12	8.4	19	7.2	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
Benzene	ug/m3	3.3	0.43	0.84	0.25	0.52	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
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.36 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
Bromodichloromethane	ug/m3	0.46	0.23 U	0.23 U	0.23 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	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
Carbon tetrachloride	ug/m3	0.54	0.44	0.49	0.48	0.35	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
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Chloroethane	ug/m3	500	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U
Chloroform	ug/m3	0.5	0.12 J	0.17 U	0.17 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	0.36	0.36	0.24 U	0.24 U	0.24 U	0.24 J	0.1 J
Chloromethane	ug/m3	80	1.2	1.3	1.2	1.1	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	1.9	0.97	1.8	1.4	1	1.1	0.95	0.92	1.1	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	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
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Cyclohexane	ug/m3	NA	0.12 U	2	0.12 U	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.29	0.17 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 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
Dichlorodifluoromethane	ug/m3	500	2.4	2.1	2.6	1.2	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
Ethanol	ug/m3	NA	18	220	270	9.9	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18	36	5.9	10	7.7	14	24
Ethyl acetate	ug/m3	NA	1.3 U	22	1.9	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
Ethylbenzene	ug/m3	290	0.18	0.45	0.15 J	0.15 U	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
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U
Hexane	ug/m3	NA	4.9 U	4.9 U	2.5 J	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
Isopropyl alcohol	ug/m3	NA	1.5 J	2.9 J	5.1	2.3 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
m,p-Xylene	ug/m3	NA	0.51	2	0.45	0.24 J	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
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
Methylene chloride	ug/m3	17	0.41 J	0.95 J	0.79 J	1.2 U	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
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.21	1.1	0.29	0.13 J	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
o-Xylene	ug/m3	NA	0.18	0.98	0.24	0.11 J	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
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 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
Styrene	ug/m3	290	0.056 J	0.15 U	0.15 J	0.15 U	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
Tetrachloroethene	ug/m3	5	0.21 J	0.28	0.42	0.38	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
Tetrahydrofuran	ug/m3	NA	1 U	1 U	1 U	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
Toluene	ug/m3	500	1.1	1.3	1.2	0.54	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
Total VOCs	ug/m3	NA	42.906	269.49	310.23	32.443	434.52	77.08	47.38	117.34	36.53	33.75	29.93	80.38	101.62	51.17	37.3	28.67	50.37	68.38	25.97	48.85	35.96	60.89	46.54
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U
Trichloroethene	ug/m3	1	0.2	0.21	0.19 U	0.34	**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
Trichlorofluoromethane	ug/m3	500	1.3	1.4	1.5	2.2	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
Trichlorotrifluoroethane	ug/m3	NA	0.59 J	0.51 J	0.46 J	0.45 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
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 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
Vinyl chloride	ug/m3	1.9	0.089 U	0.089 U	0.089 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-6-030812	IA-6-061412	IA-6-091312	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
Sample Date:			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	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019
Analyte	**Units**	**CT IACTIND 2003**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	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
1,1,1-Trichloroethane	ug/m3	500	0.082 U	0.072 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	0.12	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	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	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	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	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.45 U	2.8	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 U	0.26 U	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
1,2,4-Trimethylbenzene	ug/m3	52	0.15 U	0.21	0.17 U	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.18 U	1.7	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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
1,2-Dichloroethane	ug/m3	0.31	0.061 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	0.039 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	0.14 U	0.06 J	0.097 J	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.069 U	0.061 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	0.046 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	0.13 J	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.15 U	0.091 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	0.071 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
1,3-Butadiene	ug/m3	NA	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.59	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
1,3-Dichlorobenzene	ug/m3	410	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	0.21 U	0.21 U	0.21 U	0.21 U	0.58 J
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.13 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	0.12 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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--
2-Butanone	ug/m3	500	0.63 J	1.4 J	2.8 J	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
2-Hexanone	ug/m3	NA	0.12 U	0.2	0.27	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
4-Ethyltoluene	ug/m3	NA	0.15 U	0.08 J	0.17 U	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
4-Methyl-2-pentanone	ug/m3	200	0.12 U	0.92	0.25	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
Acetone	ug/m3	500	7.4	15	18 B	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
Benzene	ug/m3	3.3	0.39	0.2	0.49	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
Benzyl chloride	ug/m3	NA	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	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	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	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	0.078 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
Carbon disulfide	ug/m3	NA	0.93 U	0.93 U	0.2 J	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
Carbon tetrachloride	ug/m3	0.54	0.48	0.44	0.37	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**
Chlorobenzene	ug/m3	200	0.14 U	0.45	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.046 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
Chloroethane	ug/m3	500	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	0.2	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
Chloroform	ug/m3	0.5	0.073 U	0.24	0.17	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
Chloromethane	ug/m3	80	1.2	1.4	1.2	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
cis-1,2-Dichloroethene	ug/m3	100	0.059 U	0.052 J	0.042 J	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
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.1 U	0.1 U	0.2	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
Dibromochloromethane	ug/m3	NA	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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2	2.9	2.8	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
Ethanol	ug/m3	NA	41	67	23	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
Ethyl acetate	ug/m3	NA	0.69	0.31	1	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
Ethylbenzene	ug/m3	290	0.22	0.71	0.23	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
Hexachlorobutadiene	ug/m3	NA	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	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U
Hexane	ug/m3	NA	0.48 J	0.73 J	1 J	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
Isopropyl alcohol	ug/m3	NA	2.9 U	2.9 U	6.7	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
m,p-Xylene	ug/m3	NA	0.54	0.73	0.38	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
Methyl methacrylate	ug/m3	NA	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	0.14 U	--	0.14 U	--	0.14 U	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	1.8	1.5	2.2 B	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
Methyl-t-butyl ether	ug/m3	190	0.11 U	0.11 U	0.14	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.072 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	0.2	--	--	--	--	--
n-Heptane	ug/m3	NA	0.15	0.25	0.31	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
o-Xylene	ug/m3	NA	0.13	0.29	0.12 J	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
Propylene (Propene)	ug/m3	NA	2.1 U	2.1 U	1.4 J	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
Styrene	ug/m3	290	0.13 U	1.2	0.054 J	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
Tetrachloroethene	ug/m3	5	0.15	0.57	2.6	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
Tetrahydrofuran	ug/m3	NA	0.088 U	0.088 U	0.1 U	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
Toluene	ug/m3	500	1.4	1.1	1.5	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
Total VOCs	ug/m3	NA	58.86	102.53	64.16	9.002	24.943	52.99	62.9	40.35	49.44	84.81	182.786	23.83	33.3	51.72	68.892	30.76	13.42	93.69	51.64	69.95	50.01	142.01	78.04
trans-1,2-Dichloroethene	ug/m3	200	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	0.17	0.14 U	0.14 U	0.14 U	0.14 U	0.34 J
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.081 U	0.24	0.2	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
Trichlorofluoromethane	ug/m3	500	1	1.6	1.7	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
Trichlorotrifluoroethane	ug/m3	NA	0.44	0.57	0.62	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
Vinyl acetate	ug/m3	NA	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	2.5 U	2.5 U	2.5 U	3	2.5 U
Vinyl chloride	ug/m3	1.9	0.038 U	0.077 U	0.09 U	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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-6-090619	IA-6-021420	IA-6-09092020	IA-6-030821	IA-6	IA-6	IA-6	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
Sample Date:			9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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
Analyte	**Units**	**CT IACTIND 2003**																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	500	0.39	0.19 U	0.19 U	0.16 U	0.19 U	0.16 J	0.18 J	4.6	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	1.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.29	0.17 U	0.17 U	0.15 U	0.25	0.17 U	0.17 U	0.13 J	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35	0.36	0.36	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.3	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	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	0.15 U	0.089 J	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	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
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 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
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.18 U	0.2 J	0.21 U	0.18 J	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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	0.85 J	0.59 J	0.63 J	0.53 J	1.6 J	4.1 U	1.1 J	1.1 J	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2	0.49	2.1	4.3	1.8	0.42
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.16	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
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	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
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.089 J	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
Acetone	ug/m3	500	11	7.7	11	6	15	7.7	14	10	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12	41	27	12 B
Benzene	ug/m3	3.3	0.48	0.4	0.11 U	0.62	0.78	0.8	0.23	0.53	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
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 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
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U
Bromomethane	ug/m3	NA	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.38 J	0.93 U	1.1 U	1.1 U	0.14 J	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
Carbon tetrachloride	ug/m3	0.54	0.35	0.45	0.44	0.46	0.4	0.48	0.51	0.46	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
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.22	0.15 U	0.17 U	0.17 U	0.17 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
Chloromethane	ug/m3	80	1	1.1	0.14 U	0.12 U	1.3	1.4	1.1	1.1	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
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.27	0.12 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
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 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
Dichlorodifluoromethane	ug/m3	500	1.7	1.5	0.17 U	0.15 U	2.4	2	2.5	1.1	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
Ethanol	ug/m3	NA	30	41	1500	390	140	4500	300	13	7.3	16	11	26	7.9	8.4	7.1	11	14	11	10	13	39	240	13
Ethyl acetate	ug/m3	NA	0.13 U	0.13 U	1.3 U	1.1 U	27	1.3 U	1.3 U	1.3 U	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
Ethylbenzene	ug/m3	290	0.31	0.15 U	0.15 J	0.13	0.24	0.15 U	0.14 J	0.1 J	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
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA	0.35 J	4.9 U	4.9 U	0.54 J	4.9 U	4.9 U	1 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
Isopropyl alcohol	ug/m3	NA	3.9	2 J	3.4 U	1.8 J	3.2 J	1.9 J	2.6 J	1.4 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
m,p-Xylene	ug/m3	NA	0.9	0.3 U	0.39	0.29	0.65	0.32	0.4	0.27 J	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
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U
Methylene chloride	ug/m3	17	0.39 J	0.56 J	1.2 U	2.4	2.4	0.61 J	1.2 U	1.2 U	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
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	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-Heptane	ug/m3	NA	0.51	0.14 U	0.34	0.12 U	0.51	0.52	0.26	0.15	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
o-Xylene	ug/m3	NA	0.33	0.15 U	0.18	0.12 J	0.28	0.15	0.19	0.13 J	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
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 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
Styrene	ug/m3	290	0.15 U	0.15 U	0.21	0.13 U	0.22	0.15 U	0.16	0.15 U	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
Tetrachloroethene	ug/m3	5	2.6	0.24 U	0.62	0.24	0.34	0.2 J	0.31	0.41	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
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	1 U	0.88 U	1 U	1 U	1 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
Toluene	ug/m3	500	4.2	0.36	1.3	0.58	2.4	0.37	1.3	0.6	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
Total VOCs	ug/m3	NA	60.66	53.71	1516.96	404.71	201.389	4518.9	328.14	39.039	223.28	62.86	48.75	107.59	35.02	29.04	28.55	40.41	88.39	57.02	60.26	60.85	112.3	315.18	36.47
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U
Trichloroethene	ug/m3	1	**1.5**	0.19 U	0.19 U	0.16 U	0.16 J	0.19 U	0.19 U	0.49	**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
Trichlorofluoromethane	ug/m3	500	1.2	1.2	1.1	1	1.3	1.5	1.4	1.8	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
Trichlorotrifluoroethane	ug/m3	NA	1.1 U	0.42 J	1.1 U	0.92 U	0.67 J	0.52 J	0.44 J	0.42 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
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	1 J	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
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.089 U	0.077 U	0.089 U	0.089 U	0.089 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	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
Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-7-021711	IA-7-060211	IA-7-091511	IA-7-120811	IA-7-030812	IA-7-061412	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
Sample Date:			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	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	0.44 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	500	0.27 U	0.27 U	0.27 U	0.069 J	0.082 U	0.088 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	0.054 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	0.21 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	0.24 U
1,1,2-Trichloroethane	ug/m3	12	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	0.19 U
1,1-Dichloroethane	ug/m3	430	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	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	0.12 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	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.17 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	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.56	0.41	0.32	0.36	0.21	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	0.27 U
1,2-Dichlorobenzene	ug/m3	410	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	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.07 J	0.061 U	0.051 J	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
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.63	0.23 J	0.14 U	0.069 U	0.14 U	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
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 J	0.1 J	0.15	0.083 J	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
1,3-Butadiene	ug/m3	NA	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	0.48	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.14	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	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	0.06 J	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	0.18 U	0.18 U	0.065 J	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
1,4-Dioxane	ug/m3	NA	--	--	0.18 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U
2-Butanone	ug/m3	500	1.7 B	4.7	5.9 J	2.1 J	0.97 J	1.1 J	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
2-Hexanone	ug/m3	NA	0.2 U	1.4 J	0.73	0.12 U	0.081 J	0.23	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
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 J	0.074 J	0.097 J	0.065 J	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
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.53	0.36	0.15	0.13	1.4	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
Acetone	ug/m3	500	15 B	48 B	38	17	13	18	24 B	3.3	15	49	46	46	20	15	30	41	12	16	24	39	15	9.1	33
Benzene	ug/m3	3.3	1.1	0.41	0.34	0.44	0.36	0.2	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
Benzyl chloride	ug/m3	NA	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	0.18 U
Bromodichloromethane	ug/m3	0.46	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	0.24 U
Bromoform	ug/m3	7.3	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	0.36 U
Bromomethane	ug/m3	NA	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	0.056 J	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	0.27	1.6 J	0.93 U	0.93 U	0.93 U	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
Carbon tetrachloride	ug/m3	0.54	0.56	0.69	0.5	0.45	0.46	0.43	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
Chlorobenzene	ug/m3	200	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	0.16 U
Chloroethane	ug/m3	500	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	0.093 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	0.34	0.12 J	0.073 U	0.13 J	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
Chloromethane	ug/m3	80	1	1.6	1.6	1.3	1.6	1.2	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
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.064 J	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	0.086 J	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.3	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.46	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	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	0.3 U
Dichlorodifluoromethane	ug/m3	500	3.1	2.5	1.8	2.8	2.1	2.7	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
Ethanol	ug/m3	NA	14	28	76	60	70	110	60	2.6	11	45	21	40	25	50	79	96	39	110	110	360	33	13	23
Ethyl acetate	ug/m3	NA	0.18 U	0.7	0.21	1.8	0.94	0.39	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
Ethylbenzene	ug/m3	290	0.22 U	0.68	0.45	0.24	0.12 J	0.24	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
Hexachlorobutadiene	ug/m3	NA	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	0.37 U
Hexane	ug/m3	NA	1.3	0.58	7 J	3.9 J	0.8 J	0.67 J	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
Isopropyl alcohol	ug/m3	NA	11	1.2 U	77	2.9 U	2.9 U	48	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
m,p-Xylene	ug/m3	NA	0.43 J	1.5	1.1	0.72	0.3	0.54	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
Methyl methacrylate	ug/m3	NA	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	0.14 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	17	2.5	1.1	1.7 J	13	2.8	1.4	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
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	0.21
n-Heptane	ug/m3	NA	0.47	2	1.1	0.46	0.47	0.65	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
o-Xylene	ug/m3	NA	0.22 U	0.69	0.41	0.3	0.17	0.2	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
Propylene (Propene)	ug/m3	NA	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	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
Styrene	ug/m3	290	0.21 U	0.97	0.63	0.18	0.097 J	0.26	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
Tetrachloroethene	ug/m3	5	1.7	0.34 U	0.62	0.66	0.14	0.15 J	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
Tetrahydrofuran	ug/m3	NA	0.15 U	0.24	0.18	0.088 U	0.088 U	0.088	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
Toluene	ug/m3	500	1.6	6.6	3.7	1.2	0.48	1.4	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
Total VOCs	ug/m3	NA	57.3	105.01	207.62	102.99	94.85	189.68	126.56	9.282	39.581	121.94	94.74	117.13	94.51	81.48	137.44	149.052	61.44	164.9	154.18	884.908	60.34	32.31	66.65
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U
Trichloroethene	ug/m3	1	0.27 U	0.27 U	0.27 U	0.16	0.081 U	0.077 J	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
Trichlorofluoromethane	ug/m3	500	1.6	1.3	1.6	1.3	1.1	1.7	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
Trichlorotrifluoroethane	ug/m3	NA	0.67	0.76	0.54	0.67	0.44	0.53	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
Vinyl acetate	ug/m3	NA	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	2.5 U
Vinyl chloride	ug/m3	1.9	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	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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-7-021017	IA-7-090717	IA-7-022818	IA-7-091218	IA-7-020819	IA-7-090619	IA-7-021420	IA-7-09092020	IA-7-030821	IA-7	IA-7	IA-7	IA-7
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	3/29/2022	9/15/2022	3/17/2023
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	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	0.19 U	0.16 U	0.19 U	0.19 U	0.21	0.44
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	0.24 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	0.4	0.19 U	0.19 U	0.19 U	0.16 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	0.14 U	0.12 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	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 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	0.52 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.21	0.17 U	0.29	0.54	0.17 U	0.17 U	0.17 U	0.15 U	0.17	0.17 U	0.099 J	0.12 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	0.27 U	0.27 U	0.23 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	0.65 J	0.21 U	0.21 U	0.21 U	0.18 U	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	0.062 J	**0.34**	0.14 U	**0.46**	0.14 U	0.14 U	0.12 U	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	0.097 J	0.4	**0.8**	0.16 U	0.16 U	0.14 U	0.16 U	0.09 J	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.39	0.17 U	0.17 U	0.17 U	0.15 U	0.058 J	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	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.5	0.21 U	0.21 U	0.21 U	0.18 U	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	0.57	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.16 J	0.21 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	0.81 J	2.4 J	1.9 J	1.3 J	2.1 J	1.1 J	0.91 J	1.5 J	2 J	1.5 J	4.1 U	2.1 J	2.2 J
2-Hexanone	ug/m3	NA	0.14 U	0.43	0.37	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.24
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.49	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.28	0.1 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.29	0.37
Acetone	ug/m3	500	7.5	37	14	23	13	18	26	16	16	13	10	17	23
Benzene	ug/m3	3.3	0.47	0.47	0.53	0.5	0.85	0.4	0.41	0.11 U	0.63	0.43	0.63	0.18	0.56
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	0.18 U	0.36 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	0.23 U	0.2 U	0.23 U	0.23 U	0.23 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	0.31 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	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 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	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.42	0.4	0.37	0.5	**0.83**	0.43	0.43	0.22 U	0.26	0.4	0.22 U	0.53	0.45
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	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.19 U	0.093 U	0.076 J	0.19 U	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U
Chloroform	ug/m3	0.5	0.15 J	0.31	0.13 J	0.23	**0.57**	0.34	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	80	1.2	1.5	1.3	1.9	0.14 U	0.14 U	1	0.14 U	0.12 U	1.2	1.4	1.1	1
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	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	0.16 U	0.14 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	0.12 U	0.12 U	0.12 U	0.1 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	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	0.88	1.4	1.7	2.1	2.5	0.17 U	1.4	0.17 U	0.15 U	2.3	2	2.5	1.1
Ethanol	ug/m3	NA	15	95	46	28	45	200	190	990	570	150	220	430	21
Ethyl acetate	ug/m3	NA	3.5	1.7	0.17	0.35	0.13 U	0.13 U	0.13 U	1.3	3.8	1.3 U	1.3 U	1.3 U	1.2 J
Ethylbenzene	ug/m3	290	0.15 U	0.29	0.14 J	0.37	0.48	0.48	0.15 U	0.15 U	0.14	0.18	0.15 U	0.12 J	0.11 J
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	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.36 J	0.65 J	0.29 J	0.78 J	4.9 U	4.9 U	4.9 U	4.9 U	4.2 U	4.9 U	4.9 U	1 J	4.9 U
Isopropyl alcohol	ug/m3	NA	8.5	3.4 U	3.8	92	5.6	18	8.9	33	18	6.1	3.4 J	3.4 U	1.6 J
m,p-Xylene	ug/m3	NA	0.16 J	0.82	0.3 J	1.1	1.1	1.5	0.23 J	0.3 U	0.45	0.47	0.3 U	0.35	0.32
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	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	0.49 J	0.59 J	0.46 J	0.39 J	0.66 J	0.4 J	0.56 J	1.2 U	5.2	0.57 J	0.61 J	1.2 U	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	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.14 U	0.29	0.17	0.44	0.14 U	0.43	0.14 U	0.14 U	0.12 U	0.23	0.21	0.14 U	0.14
o-Xylene	ug/m3	NA	0.15 U	0.29	0.12 J	0.38	0.48	0.51	0.15 U	0.15 U	0.17	0.2	0.085 J	0.15	0.14 J
Propylene (Propene)	ug/m3	NA	0.78 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	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.59	0.13 J	0.42	0.15 U	0.33	0.15 U	0.15 U	0.13 U	0.08 J	0.15 U	0.11 J	0.15 U
Tetrachloroethene	ug/m3	5	0.24 U	0.34	0.24 U	0.6	0.88	1.6	1.9	0.24 U	2	0.74	0.35	0.24 U	0.49
Tetrahydrofuran	ug/m3	NA	0.1 U	0.21 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.88 U	1 U	1 U	1 U	1 U
Toluene	ug/m3	500	0.51	1.8	0.95	2.6	1.2	3.9	0.42	0.13 U	0.75	1.1	0.24	0.6	0.71
Total VOCs	ug/m3	NA	39.38	144.32	70.56	156.32	77.58	248.81	231.66	1040.5	620.6	180.688	241.605	458.249	58.64
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.083 J	0.28 U	0.14 U	0.14 U	0.14 U	0.12 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	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.19 U	0.18 J	0.19 U	0.43	0.19 U	0.19 U	0.16 U	0.13 J	0.33	0.19 U	0.23
Trichlorofluoromethane	ug/m3	500	1.4	1.2	1.2	1.2	1.8	1.2	1.2	0.78 U	1.2	1.2	1.7	1.3	1.5
Trichlorotrifluoroethane	ug/m3	NA	0.58 J	0.46 J	0.49 J	0.54 J	1.1 U	1.1 U	0.41 J	1.1 U	0.92 U	0.63 J	0.56 J	0.45 J	0.42 J
Vinyl acetate	ug/m3	NA	2.5 U	1.6 J	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	1.3 J
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	0.089 U	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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	400	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
Total VOCs	ug/m3	91936.2	44100.8	29195.8	24622.7	23809.2	13128	15733.1	12647.6	13662.2	4249.7	45628.6	54381	1366.58	47.7	13320	32752.8	4022.3	54.13	8671.16	149.05	9.46	20.54	257.32
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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-6-090613	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-6
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	3/29/2022
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	0.44 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	0.21
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	0.24 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	0.19 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	0.14 U
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	0.14 U
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	0.52 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	0.17 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	0.27 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	0.21 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	0.14 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	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	1.4 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	0.17 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	0.077 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	0.21 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	0.21 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	4.1 U
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	0.29 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	0.17 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	0.14 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	6.4
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	0.7
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	0.18 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	0.23 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	0.36 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	0.14 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	1.1 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	0.49
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	0.16 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	0.092 U
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	0.17 U
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	1.3
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	0.14 U
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	0.16 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	0.33
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	0.3 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	1.9
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	750
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	0.69 J
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	0.094 J
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	0.37 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	4.9 U
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	1.6 J
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	0.35
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	0.14 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	0.66 J
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	0.13 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	0.43
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	0.18
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	2.4 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	0.15 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	0.25
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	1 U
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	0.4
Total VOCs	ug/m3	35687.91	749.22	133.56	1375.67	4422.92	392.93	799.51	750.12	295.45	104.8	220.9	4959.6	241.78	239.2	117.2	4865.11	159.8	112.43	45.72	446.14	49.77	225.61	768.074
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	0.14 U
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	0.16 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	0.19 U
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	1.6
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	0.49 J
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	2.5 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	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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Center Small		Extraction Well - Large Retail Space																				
Location:		EW-6		EW-5																				
Sample ID:		EW-6	EW-6	EW-5-020309	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
Sample Date:		9/15/2022	3/17/2023	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**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25 U	--	12 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	1300	19000	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210	400	340	430	130	81	100	190
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	21 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 U	1.4 U	6.9 U	14 U	3.4 U	3.4 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	16 U	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 U	1.1 U	5.5 U	11 U	2.7 U	2.7 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	21	350	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29	34	33	44	16	11	12	21
1,1-Dichloroethene	ug/m3	15	290	2500	290	130	190	61	160	160	160	98	30	18	21	15	13	15	11	14	5	4.5	4.5	6.9
1,2,4-Trichlorobenzene	ug/m3	0.74 U	22 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 U	1.5 U	7.4 U	30 U	7.4 U	15 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	15 U	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.2 J	0.63
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	23 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	18 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	12 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 U	0.81 U	4 U	8.1 U	2 U	2 U	0.17 J	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	14 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 U	0.92 U	4.6 U	9.2 U	2.3 U	2.3 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	7 U	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	0.49 U	15 U	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.19 J
1,3-Butadiene	ug/m3	0.22 U	6.6 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 U	0.44 U	2.2 U	4.4 U	1.1 U	2.2 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	18 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	18 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	--	--	--
2-Butanone	ug/m3	70	350 U	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000	13000	2700	1800	870	840
2-Hexanone	ug/m3	0.41 U	12 U	4 U	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
4-Ethyltoluene	ug/m3	0.49 U	15 U	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.18 J
4-Methyl-2-pentanone	ug/m3	0.41 U	12 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.27 J	0.34 J
Acetone	ug/m3	43	290 U	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B	3400	710	400	440	670 B
Benzene	ug/m3	1.5	9.6 U	13	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
Benzyl chloride	ug/m3	1 U	16 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	5.2 U	1 U	1 U	5.2 U	10 U	2.6 U	5.2 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	20 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 U	1.3 U	6.7 U	13 U	3.4 U	3.4 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	31 U	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 U	2.1 U	10 U	21 U	5.2 U	10 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	12 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.78 U	0.78 U	3.9 U	7.8 U	1.9 U	3.9 U	0.39 U	0.39 U
Carbon disulfide	ug/m3	3.3	93 U	3.2 U	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12	14	8	15	22	62 J	13 J	11 J	25	49
Carbon tetrachloride	ug/m3	0.63 U	19 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	6.2 U	1.3 U	1.3 U	6.3 U	13 U	1.2 J	3.1 U	0.4 J	0.38 J
Chlorobenzene	ug/m3	0.46 U	14 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 U	0.92 U	4.6 U	9.2 U	2.3 U	4.6 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.26 U	7.9 U	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1	3.4	2.6 U	7.5	1.3 U	2.6 U	2.9	5.3
Chloroform	ug/m3	1.2	15 U	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U	4.8 U	1.1	1.2	4.9 U	9.8 U	1.1 J	2.4 U	0.98	1.1
Chloromethane	ug/m3	0.41 U	12 U	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 U	0.41 U	2.1 U	4.1 U	1 U	2.1 U	0.21 U	0.21 U
cis-1,2-Dichloroethene	ug/m3	6.1	29	2900	710	400	410	100	150	270	250	170	58	32	43	31	17	27	27	35	11	6.9	8.6	14
cis-1,3-Dichloropropene	ug/m3	0.45 U	14 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.34 U	10 U	3.4 U	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	3.4 U	0.69 U	0.69 U	3.4 U	6.9 U	1.7 U	3.4 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	26 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.5 U	17 U	4.3 U	4.3 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	15 U	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4	3.7	4.9 U	9.9 U	2.8	4.9 U	2.9	2.6
Ethanol	ug/m3	170	230 U	320	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
Ethyl acetate	ug/m3	3.6 U	110 U	7.3 U	3.6 U	3.6 U	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	6.8	3.4	0.72 U	3.8	7.2 U	3.6	26	4.2	30
Ethylbenzene	ug/m3	0.43 U	13 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.12 J	0.69
Hexachlorobutadiene	ug/m3	1.1 U	32 U	22 U	22 U	22 U	22 U	5.4 U	220 U	11 U	11 U	5.3 U	11 U	22 U	5.3 U	11 U	2.1 U	2.1 U	11 U	21 U	4.2 J	11 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	420 U	5	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	7.1 U	1.4 U	0.7 U	3.5 U	280 U	70 U	9.4 J	4.3 J	2 J
Isopropyl alcohol	ug/m3	6.2 J	290 U	190	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
m,p-Xylene	ug/m3	0.87 U	26 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.7 U	17 U	4.3 U	5.4 J	0.87 U	1.9
Methyl methacrylate	ug/m3	0.41 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	0.41 U
Methylene chloride	ug/m3	3.5 U	100 U	7.8	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
Methyl-t-butyl ether	ug/m3	0.36 U	11 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 U	0.72 U	3.6 U	7.2 U	1.8 U	3.6 U	0.36 U	0.36 U
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	12 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	0.52
o-Xylene	ug/m3	0.43 U	13 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.14 J	0.73
Propylene (Propene)	ug/m3	6.9 U	210 U	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 U	3.4 U	17 U	140 U	4.1 J	15 J	6.9 U	3.9 J
Styrene	ug/m3	0.43 U	13 U	4.2 U	17	4.2 U	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 U	0.85 U	4.3 U	8.5 U	2.1 U	4.3 U	0.46	0.38 J
Tetrachloroethene	ug/m3	110	240	210	310	190	97	8	68 U	21	25	19	8.9	6.8 U	6.7	6.8 U	4	4100	6.8 U	14 J	3.5	3.4 U	0.92	2.1
Tetrahydrofuran	ug/m3	53	88 U	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200	11000	30000	41000	11000	4500	7700	1000
Toluene	ug/m3	1.3	11 U	13	4.7	3.8 U	3.8 U	0.95 U	38 U	2.2	3.4	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.75 U	1.6	3.8 U	7.5 U	0.9 J	37	0.58	5.6
Total VOCs	ug/m3	2508.5	26909	262580.1	64776.9	33028.4	17942.5	10993.2	120040	183552.2	392552.7	224084	22061.2	46013.1	73041.1	50337.4	14946.7	25308.9	50434.3	58876.7	14878.1	7326.4	9427.37	3369.97
trans-1,2-Dichloroethene	ug/m3	6.9	12 U	26	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	2 U	4 U	2 U	4 U	0.79 U	0.79 U	4 U	7.9 U	2 U	2 U	0.4 U	0.18 J
trans-1,3-Dichloropropene	ug/m3	0.45 U	14 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U
Trichloroethene	ug/m3	410	5700	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410	660	790	940	290	170	220	400
Trichlorofluoromethane	ug/m3	290	1300	3500	200	120	67	16	56 U	27	41	2.8 U	53	7	7.4	5.8	5.1	5.8	5.6 U	11 J	3.4	5.6 U	4.9	8.5
Trichlorotrifluoroethane	ug/m3	3.1 U	92 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.57 J
Vinyl acetate	ug/m3	7 U	210 U	15 U	3.6 U	3.6 U	15 U	0.9 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	7.1 U	1.8 U	7.1 U	1.4 U	0.7 U	70 U	7 U	1.8 U	7 U	0.7 U	0.7 U
Vinyl chloride	ug/m3	0.26 U	7.7 U	2.6 U	2.6 U	2.6 U	2.6 U	0.65 U	26 U	1.3 U	5.3	1.3 U	3	3.4	3.1	4.3	2.4	3.7	3.3	6.2	1.3 U	1.3 U	2.9	4.7

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Large Retail Space																						
Location:		EW-5																						
Sample ID:		EW-5-010313	EW-5-031513	EW-5-060713	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
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																							
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	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
1,1,1-Trichloroethane	ug/m3	0.55 U	0.55 U	59	180	40	68	54	74	25	14	0.19 J	55	32	15	68	7.4	42	17	49	11	40	11	73
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	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
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	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
1,1-Dichloroethane	ug/m3	0.4 U	0.4 U	6.4	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
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	1.7	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
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	0.74 U	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
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	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
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	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
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	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
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	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
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	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
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	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
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	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
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	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
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	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
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	36 U	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	12 J	1.7 J	1900	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800	29	4500	750	5500	110	7300	160	12 U
2-Hexanone	ug/m3	0.41 U	0.41 U	0.41 U	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
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	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
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	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
Acetone	ug/m3	9.5	8.5 J	610	6800	210	380	610	500	98	49	21	550	120	58	570	11	700	320	710	47	1700	66	15
Benzene	ug/m3	0.32	0.47	1	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
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	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
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	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
Bromoform	ug/m3	1 U	1 U	1 U	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
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	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
Carbon disulfide	ug/m3	3.1 U	3.1 U	19	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
Carbon tetrachloride	ug/m3	0.63 U	0.39 J	0.63 U	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
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	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
Chloroethane	ug/m3	0.26 U	0.26 U	1.5	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
Chloroform	ug/m3	0.49 U	0.49 U	0.59	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
Chloromethane	ug/m3	0.21	1.1	0.41 U	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
cis-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	4.3	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
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	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
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	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
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	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
Dichlorodifluoromethane	ug/m3	0.49	2.5	2.1	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
Ethanol	ug/m3	7.5	3.5 J	13	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
Ethyl acetate	ug/m3	0.36 U	1.2	2.6	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
Ethylbenzene	ug/m3	0.43 U	0.43 U	0.43 U	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
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	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
Hexane	ug/m3	14 J	2.2 J	14 U	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
Isopropyl alcohol	ug/m3	9.8 J	9.8 U	9.8 U	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
m,p-Xylene	ug/m3	0.87 J	0.87 U	0.87 U	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
Methyl methacrylate	ug/m3	0.41 U	0.41 U	0.41 U	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
Methylene chloride	ug/m3	3.5 J	6.9	1.1 J	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
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	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
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--	5.2 U	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	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
o-Xylene	ug/m3	0.43 U	0.43 U	0.43 U	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
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	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
Styrene	ug/m3	0.43 U	0.43 U	0.43 U	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
Tetrachloroethene	ug/m3	0.68 U	0.68 U	0.71	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
Tetrahydrofuran	ug/m3	0.29 U	0.29 U	2300	26000	1000	2900	2600	3300	460	320	1.9	2900 E	1100	250	4900	13	5300	1800	4200	240	4900	880	2.9 U
Toluene	ug/m3	0.38	0.4	0.43	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
Total VOCs	ug/m3	18.96	30.87	15175.23	65081.49	2081.4	4839.51	14134.82	8015.12	975.96	563.23	42.38	18666.42	1897.65	527.7	10659.5	83.01	10912.73	2993	10819	574.9	14319.8	1227.07	223.54
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	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
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	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
Trichloroethene	ug/m3	0.54 U	0.54 U	150	180	80	190	160	200	66	38	0.54 U	160	94	37	210	16	150	44	140	18	130	30	54
Trichlorofluoromethane	ug/m3	0.56	1.4	2.9	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
Trichlorotrifluoroethane	ug/m3	0.77 U	0.61 J	0.77 U	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
Vinyl acetate	ug/m3	0.7 U	0.7 U	7 U	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
Vinyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Large Retail Space					Extraction Well - Western Small Retail Space																	
Location:		EW-5					EW-7																	
Sample ID:		EW-5-030821	EW-5	EW-5	EW-5	EW-5	EW-7-020309	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
Sample Date:		3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	0.44 U	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.5 U	--
1,1,1-Trichloroethane	ug/m3	11	0.55 U	15	4200	20000	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250	290	160	110	5.5 U	110	66
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.24 U	1.4 U	21 U	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	6.9 U	1.4 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.19 U	1.1 U	16 U	5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.54 U	0.55 U	0.55 U	5.5 U	1.1 U	0.55 U
1,1-Dichloroethane	ug/m3	1.6	0.4 U	0.32	130	860	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220	150	45	150	80
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.14 U	77	430	14	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63	0.4 U	4 U	0.79 J	0.13 J
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	0.52 U	1.5 U	22 U	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	3 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.17 U	0.98 U	15 U	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 J	0.32 J
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.27 U	1.5 U	23 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.77 U	0.77 U	7.7 U	1.5 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.21 U	1.2 U	18 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.14 U	0.81 U	12 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.81 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.16 U	0.92 U	14 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	7 U	1.4 U	1.8 U	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U	0.7 U	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.17 U	0.98 U	15 U	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.077 U	0.44 U	6.6 U	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	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
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.21 U	1.2 U	18 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.21 U	1.2 U	18 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.72 U	--
2-Butanone	ug/m3	130	3.5 J	1.2 J	5300	350 U	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1	5.3 B	59 U	24 J	6.2 J
2-Hexanone	ug/m3	0.82 U	0.82 U	0.29 U	0.82 U	12 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 U	0.41 U	82 U	0.82 J	0.14 J
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.17 U	0.98 U	15 U	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.14 U	0.82 U	12 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	0.82 U	0.13 J
Acetone	ug/m3	640	16	4	1100	290 U	580	38	58	30	24	15	24	24	7.9	49	26	25	12	42 B	35 B	48 U	23	12
Benzene	ug/m3	3	0.46	0.41	2	9.6 U	3.2 U	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.4	1.6	3.2 U	2.5	1.6
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.18 U	2.1 U	16 U	5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U	1 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.23 U	1.3 U	20 U	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U	6.7 U	1.3 U	0.67 U
Bromoform	ug/m3	1 U	1 U	0.36 U	2.1 U	31 U	11 U	2.1 U	2.6 U	2.6 U	2.6 U	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U	10 U	2.1 U	1 U
Bromomethane	ug/m3	0.39 U	0.39 U	0.14 U	0.78 U	12 U	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U	0.38 U	0.39 U	0.39 U	3.9 U	0.78 U	0.39 U
Carbon disulfide	ug/m3	3.1 U	3.1 U	0.1 J	270	27 J	5.7	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78	0.31 U	3.1 U	6.2 J	3.1 U
Carbon tetrachloride	ug/m3	0.63 U	0.43 J	0.44	1.3 U	19 U	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U	0.62 U	0.63 U	0.63 U	6.3 U	1.3 U	0.34 J
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.16 U	0.92 U	14 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.092 U	3.2	7.9 U	170	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
Chloroform	ug/m3	0.3 J	0.17 J	0.17 U	4.7	15 U	4.8 U	1	1.2 U	1.3	1.2 U	4.8 U	2.7	2.6	4.6	2.7	1.1	4.2	4.4	3.9	3	4.9 U	5	3.8
Chloromethane	ug/m3	0.41 U	1.4	0.14 U	0.83 U	12 U	2 U	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.21 U	0.21 U	2.1 U	0.41 U	0.21 U
cis-1,2-Dichloroethene	ug/m3	0.52	0.4 U	0.14 U	8.1	20	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350	250	65	210	99
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.16 U	0.91 U	14 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	4.5 U	0.91 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.12 U	0.69 U	10 U	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.41	0.34 U	0.34 U	3.4 U	0.69 J	0.34 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.3 U	1.7 U	26 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U	0.86 U	0.85 U	0.85 U	8.5 U	1.7 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	2.5	2	0.99 U	15 U	5 U	2.5	3.2	770	2.6	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	1.5	2.1	0.49 U	4.9 U	2.7	2.6
Ethanol	ug/m3	47	94	8.1	27	230 U	350	26	29	17	15	3.8 U	19	18	12	18	37	31	1.9 U	1.9 U	18	38 U	22	23
Ethyl acetate	ug/m3	3.6 U	3.6 U	1.3 U	7.2 U	110 U	7.3 U	0.72 U	0.9 U	1.9 U	0.9 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	0.72 U	0.36 U
Ethylbenzene	ug/m3	16	0.17 J	0.15 U	0.87 U	13 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U	0.44 U	0.43 U	0.43 U	4.3 U	0.87 J	0.26 J
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	0.37 U	2.1 U	32 U	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	11 U	2.1 U	1.1 U
Hexane	ug/m3	14 U	14 U	4.9 U	28 U	420 U	10	10	7.6	5.5	3.1	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97	0.71 U	0.87	0.35 U	3.5 U	28 U	14 U
Isopropyl alcohol	ug/m3	9.8 U	2.7 J	3.4 U	9.1 J	290 U	210	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
m,p-Xylene	ug/m3	67	0.59 J	0.19 J	1.7 U	26 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	1.4	0.93	1	0.87 U	0.87 U	8.7 U	1.7 J	0.82 J
Methyl methacrylate	ug/m3	--	0.41 U	0.14 U	0.82 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41 U	4.1 U	0.82 U	0.41 U
Methylene chloride	ug/m3	1.8 J	0.9 J	1.2 U	6.9 U	100 U	9.3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9	2.4	6.9 U	6.9 J	1.5 J
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.13 U	0.72 U	11 U	3.6 U	3.5	2.9	4.9	3.1	3.6 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	0.72 J	0.36 U
Naphthalene	ug/m3	3.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	0.41 U	0.097 J	0.82 U	12 U	4 U	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	0.82 J	0.22 J
o-Xylene	ug/m3	18	0.24 J	0.082 J	0.87 U	13 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.65	0.44 U	0.44 U	0.43 U	0.43 U	4.3 U	0.87 J	0.38 J
Propylene (Propene)	ug/m3	6.9 U	6.9 U	2.4 U	14 U	210 U	3.5 U	160	110	0.87 U	0.45 U	3.5 U	0.9 U	0.9 U	3.5 U	3.5 U	0.69 U	1.8 U	0.69 U	0.69 U	1.7 U	17 U	14 U	6.9 U
Styrene	ug/m3	0.43 U	0.14 J	0.15 U	0.85 U	13 U	4.2 U	0.84 U	1.1 U	1.1 U	1.1 U	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	0.42 U	0.67	0.47	0.43 U	0.43 U	4.3 U	0.85 J	0.49
Tetrachloroethene	ug/m3	0.38 J	0.56 J	2.3	29	200	66	69	56	84	69	40	140	230	410	130	74	510	610	190	110	120	450	170
Tetrahydrofuran	ug/m3	820	2.9 U	6.4	4200	360	41	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
Toluene	ug/m3	1.9	1.4	0.28	0.74 J	11 U	14	2.9	3.6	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4	4.8	2.2	0.47	0.88	3.8 U	1.9	1.1
Total VOCs	ug/m3	1803.9	127.15	55.109	16743.24	34097	12338.7	14267.8	12377.3	14018.4	12126.6	3144.6	6728.6	6486.9	6601.2	2854.5	3745.82	3325.51	3324.33	2038.35	1796.88	4720	4278.9	1834.49
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	0.14 U	0.79 U	12 U	150	140	90	90	80	48	120	140	150	84	22	120	110	78	58	4 U	82	54
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.16 U	0.91 U	14 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	4.5 U	0.91 U	0.45 U
Trichloroethene	ug/m3	40	0.54 U	12	1100	11000	230	210	180	180	200	110	330	420	920	420	190	690	730	440	310	260	680	310
Trichlorofluoromethane	ug/m3	2 J	1.3 J	1.7	280	1200	1800	1400	900	690	640	190	310	660	1400	620	210	690	700	530	740	330	2500	1000
Trichlorotrifluoroethane	ug/m3	3.1 U	0.69 J	0.49 J	6.1 U	92 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.89	0.77 U	7.7 U	1.5 J	1
Vinyl acetate	ug/m3	7 U	7 U	2.5 U	14 U	210 U	15 U	0.72 U	0.9 U	3.6 U	0.9 U	15 U	1.8 U	1.8 U	7.1 U	3.6 U	0.71 U	0.36 U	0.71 U	0.7 U	0.35 U	70 U	0.7 U	0.35 U
Vinyl chloride	ug/m3	0.26 U	0.26 U	0.089 U	2.4	7.7 U	280	370	180	48	21	2.6 U	2.7	3.2	1.3 U	1.6	1	0.26 U	1.6	0.41	0.26 U	2.6 U	0.51 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-7-030812	EW-7-061412	EW-7-091312	EW-7-010313	EW-7-031513	EW-7-060713	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
Sample Date:		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	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018
Analyte	**Units**																							
1,1,1,2-Tetrachloroethane	ug/m3	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	1.2 U	1.2 U	1.2 U	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
1,1,1-Trichloroethane	ug/m3	11	47	95	0.55 U	3.1	15	76	52	41	30	15	52	6.1	25	14	63	40	1.1 U	160	30	1.2	20	7.9
1,1,2,2-Tetrachloroethane	ug/m3	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	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
1,1,2-Trichloroethane	ug/m3	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	0.55 U	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
1,1-Dichloroethane	ug/m3	6.4	42	100	0.4 U	2	7	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
1,1-Dichloroethene	ug/m3	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	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U
1,2,4-Trichlorobenzene	ug/m3	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	0.74 U	0.74 U	0.74 U	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
1,2,4-Trimethylbenzene	ug/m3	4.9 U	0.32 J	0.97	0.49	0.3 J	0.49 U	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
1,2-Dibromoethane (EDB)	ug/m3	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	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
1,2-Dichlorobenzene	ug/m3	6 U	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	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
1,2-Dichloroethane	ug/m3	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	0.16 J	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.81 U
1,2-Dichloropropane	ug/m3	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	0.46 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
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	4.9 U	0.49 U	0.5	0.49 U	0.49 U	0.49 U	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
1,3-Butadiene	ug/m3	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 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
1,3-Dichlorobenzene	ug/m3	6 U	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	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
1,4-Dichlorobenzene	ug/m3	6 U	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	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
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	36 U	--	--	--	--
2-Butanone	ug/m3	100 J	14	3.6 J	12	210	99	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
2-Hexanone	ug/m3	4.1 U	0.28 J	0.64	0.41 U	0.39 J	0.41 U	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
4-Ethyltoluene	ug/m3	4.9 U	0.49 U	0.21 J	0.49 U	0.49 U	0.49 U	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
4-Methyl-2-pentanone	ug/m3	4.1 U	1.6	0.31 J	0.41	0.41 U	0.41 U	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
Acetone	ug/m3	46 J	31	17 B	9.5	55	28	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
Benzene	ug/m3	3.2 U	1.5	1.2	0.32	0.54	0.61	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
Benzyl chloride	ug/m3	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	0.52 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	1 U	1 U
Bromodichloromethane	ug/m3	3.4 U	3.2	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	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
Bromoform	ug/m3	10 U	1 U	1 U	1 U	1 U	1 U	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
Bromomethane	ug/m3	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	0.39 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
Carbon disulfide	ug/m3	31 U	0.41 J	3.1 U	3.1 U	0.57 J	7.4	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
Carbon tetrachloride	ug/m3	3.1 U	0.3 J	0.33 J	0.63	0.47 J	0.63 U	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
Chlorobenzene	ug/m3	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	0.46 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
Chloroethane	ug/m3	2.6 U	0.82	0.26 U	0.26 U	0.26 U	0.92	0.093 U	0.61	0.63	1.6	1.4	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
Chloroform	ug/m3	2.4 U	3.1	4.1	0.49 U	0.36 J	2	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
Chloromethane	ug/m3	2.1 U	0.21 U	0.21 U	0.21	0.21 U	0.41 U	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
cis-1,2-Dichloroethene	ug/m3	5.1	53	120	0.4 U	1.4	5.1	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
cis-1,3-Dichloropropene	ug/m3	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	0.45 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
Cyclohexane	ug/m3	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.34 U	0.69 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
Dibromochloromethane	ug/m3	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	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
Dichlorodifluoromethane	ug/m3	4.9 U	3	0.49 U	0.49	2.5	2	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
Ethanol	ug/m3	160	31	140	75	27	22	14	30	12	13	32	18	11	7.5 U	42	93	14 J	18	49 J	13	65	8.6 J	19
Ethyl acetate	ug/m3	11	0.63	0.36 U	0.36 U	3	3.6	0.13 U	0.36 U	0.94	0.36 U	0.36 U	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
Ethylbenzene	ug/m3	4.3 U	0.21 J	0.47	0.43	0.13 J	0.43 U	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
Hexachlorobutadiene	ug/m3	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	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
Hexane	ug/m3	4 J	0.55 J	14 U	14 J	3.5 J	0.78 J	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
Isopropyl alcohol	ug/m3	98 U	14	9.8 U	9.8	9.8 U	9.8 U	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
m,p-Xylene	ug/m3	8.7 U	0.45 J	1.3	0.87	0.33 J	0.5 J	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
Methyl methacrylate	ug/m3	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	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
Methylene chloride	ug/m3	33 J	2.1 J	5.4 B	3.5	10	1.5 J	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
Methyl-t-butyl ether	ug/m3	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 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
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--	7.1	--	--	--	--
n-Heptane	ug/m3	4.1 U	0.49	0.75	0.41 U	0.41 U	0.41 U	0.59	1.1	0.41 U	0.44	2.2	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
o-Xylene	ug/m3	4.3 U	0.18 J	0.52	0.43	0.15 J	0.43 U	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
Propylene (Propene)	ug/m3	13 J	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	6.9 U	6.9 U	1.1 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
Styrene	ug/m3	4.3 U	0.66	0.41 J	0.43 U	0.14 J	0.43 U	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
Tetrachloroethene	ug/m3	5.6	130	200	0.68	3	100	410	150	140	81	110	370	18	81	89	390	170	2.7	1200	27	5	95	62
Tetrahydrofuran	ug/m3	1000	13	1.1	0.29	120	2000	10	4.6	2100	1400	2100	4.6	350	660	720	3.5	5.8	38	31	2.5	130	880	1100
Toluene	ug/m3	8.1	1.1	1.9	0.38	0.63	1.1	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
Total VOCs	ug/m3	1444	2051.08	3185.85	116.53	555.32	7251.73	2975.37	1727.52	3745.51	2462.54	2809.84	2056.9	686	1498.66	1413.45	4455.12	1473.9	187.1	5515	1149.63	473.6	1561.33	1557.3
trans-1,2-Dichloroethene	ug/m3	3.8	37	45	0.4 U	2.1	7.1	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
trans-1,3-Dichloropropene	ug/m3	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	0.45 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
Trichloroethene	ug/m3	53	320	450	0.54	17	170	740	350	280	210	190	440	46	180	170	610	380	6.2	1500	140	15	170	120
Trichlorofluoromethane	ug/m3	180	1300	2000	0.56	91	280	1500	990	1100	690	300	1100	200	460	340	1300	850	23	2500	890	23	370	120
Trichlorotrifluoroethane	ug/m3	3.8 U	0.78	0.57 J	0.77 U	0.71 J	0.77 U	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
Vinyl acetate	ug/m3	7 U	2.2	0.7 U	0.7 U	0.7 U	7 U	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
Vinyl chloride	ug/m3	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.9	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

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
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Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

Appendix D2.
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Former Gorham Manufacturing Site
Providence, Rhode Island

Area:		Extraction Well - Western Small Retail Space								
Location:		EW-7								
Sample ID:		EW-7-020819	EW-7-090619	EW-7-021420	EW-7-09092020	EW-7-030821	EW-7	EW-7	EW-7	EW-7
Sample Date:		2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023
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	0.44 U	1.2 U	2.5 U
1,1,1-Trichloroethane	ug/m3	8.7	8.3	9.4	8.7	42	12	0.26	51	42
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	0.24 U	0.69 U	1.4 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	0.19 U	0.55 U	1.1 U
1,1-Dichloroethane	ug/m3	0.4 U	1.3	0.81	0.4 U	2.7	1.5	0.14 U	6.2	1.8
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.79 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 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	0.17 U	0.49 U	0.98 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	0.27 U	0.77 U	1.5 U
1,2-Dichlorobenzene	ug/m3	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.81 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.22 U	0.44 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	12 U	22	32	18	21	25	4.1 U	5.1 J	24 U
2-Hexanone	ug/m3	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.41 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	0.17 U	0.49 U	0.98 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	0.14 U	0.41 U	0.82 U
Acetone	ug/m3	21	17	26	15	11	7.8 J	9.6	9.5	19 U
Benzene	ug/m3	2.1	1.4	1	0.32 U	1.2	0.66	0.6	0.89	0.87
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	1 U	1 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	0.67 U	1.3 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	2.1 U
Bromomethane	ug/m3	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.78 U
Carbon disulfide	ug/m3	30 J	47	25	3.1 U	3.1 U	66	1.1 U	3.1 U	14
Carbon tetrachloride	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U	0.47 J	0.44 J	0.24	0.52 J	1.3 U
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U
Chloroethane	ug/m3	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	0.26 U	0.53 U
Chloroform	ug/m3	2.1	1.7	0.86	1.3	2.9	2.6	0.17 U	2	1.9
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.6	0.41 U	0.83 U
cis-1,2-Dichloroethene	ug/m3	1.7	1.2	0.59	1.3	2.1	1.4	0.14 U	2.8	0.79 U
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.69 U
Dibromochloromethane	ug/m3	2.2	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	1.7 U
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.49 U	2	0.49 U	1.9
Ethanol	ug/m3	7.5 U	63	140	45	150	12	210	130	9.9 J
Ethyl acetate	ug/m3	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U	1.3 U	3.6 U	7.2 U
Ethylbenzene	ug/m3	1.3	0.43 U	0.43 U	0.16 J	0.16 J	0.18 J	0.15 U	0.43 U	0.87 U
Hexachlorobutadiene	ug/m3	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	2.1 U
Hexane	ug/m3	14 U	14 U	14 U	14 U	14 U	14 U	4.9 U	14 U	28 U
Isopropyl alcohol	ug/m3	5.4 J	4.6 J	11	9.8 U	8.5 J	4 J	4.8	9.8 U	20 U
m,p-Xylene	ug/m3	2.6	0.87 U	0.55 J	0.4 J	0.43 J	0.52 J	0.3 U	0.51 J	1.7 U
Methyl methacrylate	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U	0.41 U	0.82 U
Methylene chloride	ug/m3	1.5 J	3.5 U	0.51 J	3.5 U	3.5 U	3.5 U	1.2 U	3.5 U	6.9 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	0.13 U	0.36 U	0.72 U
Naphthalene	ug/m3	--	--	--	--	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	0.17	0.41 U	0.82 U
o-Xylene	ug/m3	1.3	0.43 U	0.43 U	0.43 U	0.2 J	0.17 J	0.15 U	0.43 U	0.87 U
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	14 U
Styrene	ug/m3	0.43 U	0.43 U	0.71	0.31 J	0.46	0.21 J	0.15 U	0.43 U	0.85 U
Tetrachloroethene	ug/m3	15	93	45	53	190	110	1.8	60	220
Tetrahydrofuran	ug/m3	220	2500	980	1300	1300	1700	1 U	3	73
Toluene	ug/m3	2.4	1.5	0.61	0.81	0.75	1.4	0.29	1	0.48 J
Total VOCs	ug/m3	544.6	3048.8	1526.5	1695.38	2657.07	2337.68	237.33	1219.02	1097.7
trans-1,2-Dichloroethene	ug/m3	2.2 J	1.4	0.82	1.4	3.2	1.8	0.14 U	5.5	1.3
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U
Trichloroethene	ug/m3	42	150	81	130	320	210	1.3	190	160
Trichlorofluoromethane	ug/m3	190	140	170	120	600	180	4.1	750	570
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.57 J	1 J	6.1 U
Vinyl acetate	ug/m3	7 U	7 U	7 U	7 U	7 U	7 U	2.5 U	7 U	14 U
Vinyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.089 U	0.26 U	0.55

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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	0.27 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
Total VOCs	ug/m3	NA	34.204	28.668	32.75	27.372	13.961	34.673	96.68	68.2	76.91	86.7	47.17	40.42	63.36	33.65	638.04	37.22	47.25	35.57	35.3	50.35	39.48	15.01	73.69
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	0.2 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	0.22 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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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	0.24 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	0.19 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	0.14 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	0.14 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	0.26 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	0.27 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	0.21 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	0.14 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	0.16 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	0.21 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	0.21 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	0.18 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	0.24 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	0.36 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	0.14 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	0.16 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	0.093 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	0.14 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	0.16 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	0.3 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	0.37 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
Total VOCs	ug/m3	NA	39.22	66.41	21.2	33.3	39.08	44.06	41.79	28.91	54.86	21.08	33.74	20.92	19.81	26.5	45.24	9.002	17.59	60.12	127.19	63.04	52.05	120.7	62.77
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	0.059 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	0.16 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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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-1	IA-1	IA-1	IA-2	IA-2-020309	IA-2-021109
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	3/29/2022	9/15/2022	3/17/2023	1/16/2009	2/3/2009	2/11/2009
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	0.44 U	0.44 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	0.19 U	0.19 U	0.19 U	0.73	9.9	0.63	1.1
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	0.24 U	0.24 U	0.24 U	0.24 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	0.065 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	0.19 U	0.19 U	0.19 U	0.19 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	0.082 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	0.14 U	0.14 U	0.14 U	0.72	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.078 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	0.14 U	0.14 U	0.14 U	0.41	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	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U
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	0.17 U	0.17 U	0.21	0.25 U	0.37	0.7
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	0.27 U	0.27 U	0.27 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	0.7 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 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	0.14 U	0.14 U	0.14 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	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 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
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	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25
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	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.3
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	0.21 U	0.21 U	0.21 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	0.21 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	0.21 U	0.21 U	0.21 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	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	4.1 U	4.1 U	4.1 U	21	4.1	4.6
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	0.29 U	0.14 U	0.14 U	0.2 U	0.2 U	0.35
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	0.17 U	0.17 U	0.11 J	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 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	0.091 J	0.27	0.089 J	0.2 U	0.2 U	0.35
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	7.1	12	8.9	17	9.6	14
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	0.44	0.24	1	1	0.67	1.8
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	0.18 U	0.36 U	0.18 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.12 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	0.23 U	0.23 U	0.24 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	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 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	0.14 U	0.095 J	0.14 U	0.19 U	0.19 U	0.19 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	1.1 U	0.14 J	1.1 U	0.16 U	0.16 U	0.16 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	0.43	0.5	0.45	0.33	0.41	**0.55**
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	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 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	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.42
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	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	0.24 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	1.4	1.5	1	1.1	1	1.3
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	0.14 U	0.14 U	0.14 U	2.1	0.24	1.1
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	0.16 U	0.16 U	0.16 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	0.84	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	0.12 U	0.12 U	0.14	0.17 U	0.17 U	0.44
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	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 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	2.1	2.6	1.1	1.8	2.2	2.6
Ethanol	ug/m3	NA	29	9.1	11	21	22	51	20	3	15	94	6.8	17	16	5.1	81	23	110	38	30	12	5.5	8.8	12
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	1.7	0.83 J	1.3 U	0.37 U	0.37 U	0.18 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	0.15 U	0.097 J	0.21	0.26	0.28	0.65
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	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 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	1.2 J	1.8 J	0.72 J	0.88	0.57	1.3
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	1.3 J	1.8 J	2.2 J	3.7	3.1	4.5
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	0.3 U	0.32	0.63	0.76	0.88	2
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	0.14 U	0.14 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	7.9	0.59 J	1.2 U	2	**30**	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	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 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	0.12 J	0.11 J	0.26	0.23	0.2 U	0.58
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	0.15 U	0.11 J	0.23	0.3	0.34	0.76
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	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 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	0.15 U	0.15 U	0.15 U	0.21 U	0.21 U	0.21 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	0.28	0.24 U	0.5	**7.5**	0.64	4.2
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	1 U	1 U	1 U	12	1.2	1.2
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	0.3	0.42	1.4	1.7	1.3	4
Total VOCs	ug/m3	NA	44.47	38.76	25.23	56.816	57.45	73.76	47.39	12.87	38.82	110.2	33.13	39.89	30.26	17.98	99.312	47.83	147.409	64.201	55.302	33.889	97.55	68.67	69.02
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	0.14 U	0.14 U	0.14 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	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 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	0.13 J	0.19 U	0.16 J	**4.4**	0.56	**1.6**
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	1.2	1.4	1.4	2	1.2	1.7
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	0.51 J	0.48 J	0.45 J	0.69	0.58	0.49
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	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 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	0.089 U	0.089 U	0.09 U	0.27	0.13 U	0.18

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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-2-021809	IA-2-022609	IA-2-041409	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
Sample Date:			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	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--	0.37 U
1,1,1-Trichloroethane	ug/m3	500	1.1	0.44	1.4	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	1	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U
1,1-Dichloroethane	ug/m3	430	0.2 U	0.32	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U
1,2,4-Trimethylbenzene	ug/m3	52	0.65	0.3	0.18 U	0.25 U	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 J	0.088 J	0.15 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U
1,3-Butadiene	ug/m3	NA	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	--
2-Butanone	ug/m3	500	3	2.9	0.95	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
2-Hexanone	ug/m3	NA	0.26	0.2 U	0.14 U	0.2 U	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 U	0.16
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	0.1 J	0.11 J
Acetone	ug/m3	500	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B	8.9 B	18	6.2	5.4
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	3	0.77	0.58	0.44	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39	0.36
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.22	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U
Carbon disulfide	ug/m3	NA	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	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U
Carbon tetrachloride	ug/m3	0.54	**0.57**	0.48	0.41	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
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U
Chloroform	ug/m3	0.5	0.24 U	0.25	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.47	0.4	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
Chloromethane	ug/m3	80	1.3	1	1.1	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.8	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93	1
cis-1,2-Dichloroethene	ug/m3	100	1.1	0.95	0.59	1.6	0.2 U	0.2 U	0.79	0.48	0.58	0.2 U	0.2 U	0.2 U	0.2 U	1	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.17	0.059 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U
Cyclohexane	ug/m3	NA	0.61	0.17 U	0.12 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U
Dichlorodifluoromethane	ug/m3	500	2.9	2.7	2.1	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
Ethanol	ug/m3	NA	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9	5	7.6	9	2.7	10	2.5	8.5	2.1 J	2.1 J
Ethyl acetate	ug/m3	NA	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	0.18 U	0.18 U	0.18 U	0.22	0.24
Ethylbenzene	ug/m3	290	0.79	0.3	0.18	0.22 U	0.22 U	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 J	0.13 J	0.13 U
Hexachlorobutadiene	ug/m3	NA	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U
Hexane	ug/m3	NA	1.6	0.69	0.72	0.74	0.41	0.42	0.71	1	0.61	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U	1.6	0.31	7 J	0.32 J	0.34 J
Isopropyl alcohol	ug/m3	NA	4.5	4.7	5.6	28	340	5.7	3.3	0.25 U	0.25 U	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	0.25 U	2	1.2 U	4.9 J	2.9 U	0.76 J
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	2.6	0.93	0.61	0.63	0.71	0.93	0.78	1.1	1.3	1.1	0.43 U	0.43 U	0.47	0.75	0.96	1.3	1.5	0.43 U	1.5	0.36 J	0.57	0.39	0.18 J
Methyl methacrylate	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U
Methylene chloride	ug/m3	17	1.6	1.8	4	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
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.73	0.22	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.83	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.8	0.34	0.2 U	0.48	0.2 U	0.2 U	0.091 J	0.12 U
o-Xylene	ug/m3	NA	0.89	0.34	0.22	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
Propylene (Propene)	ug/m3	NA	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.36	0.24	0.21 U	0.21 U	0.21 U	0.21 J	0.059 J	0.13 U
Tetrachloroethene	ug/m3	5	3.2	3.3	2.2	**7.6**	0.34 U	0.35	1.7	1	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6	0.43	1.4	0.34 U	3.2	**5.2**	0.34 U	0.45	0.92	0.23
Tetrahydrofuran	ug/m3	NA	0.49	0.41	0.21	0.28	0.15 U	0.15 U	0.15 U	0.15 U	1.6	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.097	0.088 U
Toluene	ug/m3	500	5.5	2.3	1	1.2	1.1	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.8	1.3	0.91	1.3	2.2	0.41	2.9	0.55	0.99	1.6	0.24
Total VOCs	ug/m3	NA	77.14	45.85	42.55	103.96	360.59	42.2	35.58	29.3	54.89	59.5	31.46	25.5	19.65	34.78	37.71	50.91	38.82	26.23	54.78	18.6	43.51	17.427	12.77
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U
trans-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U
Trichloroethene	ug/m3	1	**1.4**	0.91	0.77	**1.9**	0.27 U	0.27 U	0.99	0.57	0.79	0.27 U	0.27 U	0.27 U	0.27 U	**1.2**	0.27 U	0.53	0.27 U	**1.7**	0.27 U	0.27 U	0.27 U	0.27	0.081 U
Trichlorofluoromethane	ug/m3	500	2.8	1.6	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.1	1.4	1.3	1.3	1.6	2.5	1.2	1.8	1.2	1.9	1.1	0.94
Trichlorotrifluoroethane	ug/m3	NA	0.46	0.64	0.56	0.74	0.5	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44	0.53	0.94	0.45	0.59	0.71	0.71	0.61	0.71	0.42
Vinyl acetate	ug/m3	NA	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U
Vinyl chloride	ug/m3	1.9	0.2	0.13 U	0.1 U	0.18	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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-2-061412	IA-2-091312	IA-2-010313	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
Sample Date:			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	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019
Analyte	**Units**	**CT IACTIND 2003**																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	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	0.16 U	0.08 J	0.19 U	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	0.19 U	0.1 J	0.19 U	8	0.61
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	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	0.16 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	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	0.12 U	0.043 J	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	0.12 U	0.045 J	0.14 U	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	0.14 U	1.2	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	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	0.19	0.48	0.17	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	**0.67**	0.27 U
1,2-Dichlorobenzene	ug/m3	410	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.74 J	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.051 J	0.08 J	0.14	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	0.14 U	0.062 J	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.14 U	0.16 U	0.16 U	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
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.08 J	0.26	0.17	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
1,3-Butadiene	ug/m3	NA	0.066 U	0.078 U	0.078 U	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
1,3-Dichlorobenzene	ug/m3	410	0.18 U	0.08 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	0.21 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
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.093 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	0.21 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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--
2-Butanone	ug/m3	500	1.4 J	2.8 J	4.1	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
2-Hexanone	ug/m3	NA	0.15	0.32	0.14	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
4-Ethyltoluene	ug/m3	NA	0.086 J	0.19	0.17	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
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.12 J	0.19	0.14	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
Acetone	ug/m3	500	14	17 B	3.3	46	32	22	32	32	29	37	9.7	40	29	93	33	26	36	8.8	31	43	10	10	6.3
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.24	0.62	0.11	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
Benzyl chloride	ug/m3	NA	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	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	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	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	0.078 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
Carbon disulfide	ug/m3	NA	0.93 U	1.1 U	1.1	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
Carbon tetrachloride	ug/m3	0.54	0.45	0.43	0.22	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
Chlorobenzene	ug/m3	200	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	0.046 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
Chloroethane	ug/m3	500	0.079 U	0.093 U	0.093 U	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
Chloroform	ug/m3	0.5	0.14 J	0.25	0.17 U	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
Chloromethane	ug/m3	80	1.4	1.3	0.072	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
cis-1,2-Dichloroethene	ug/m3	100	0.12 U	0.064 J	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	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.48	8.5	0.41
cis-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.1 U	0.26	0.12	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
Dibromochloromethane	ug/m3	NA	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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.7	2.8	0.17	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
Ethanol	ug/m3	NA	10	9.8	2.6	380	66	46	89	130	240	140	27	150	220	51	72	110	180	48	320	990	11	12	4.5
Ethyl acetate	ug/m3	NA	3.5	0.71	0.13	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
Ethylbenzene	ug/m3	290	0.13 U	0.41	0.15	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
Hexachlorobutadiene	ug/m3	NA	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	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U
Hexane	ug/m3	NA	2.6 J	2.4 J	4.9	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
Isopropyl alcohol	ug/m3	NA	2.9 U	2.8 J	3.4 U	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
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.38	1.3	0.3	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
Methyl methacrylate	ug/m3	NA	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.082 U	0.14 U	0.14 U	--	0.14 U	--	0.14 U	--	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	6.6	6.4 B	1.2 J	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
Methyl-t-butyl ether	ug/m3	190	0.11 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.072 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	0.28	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.11 J	0.4	0.14	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
o-Xylene	ug/m3	NA	0.17	0.55	0.15	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
Propylene (Propene)	ug/m3	NA	2.1 U	2.4 U	2.4 U	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
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.097 J	0.19	0.15	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
Tetrachloroethene	ug/m3	5	0.09 J	2	0.24	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
Tetrahydrofuran	ug/m3	NA	0.048 J	0.1 U	0.1	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
Toluene	ug/m3	500	0.9	2.6	0.13	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
Total VOCs	ug/m3	NA	43.05	52.08	19.502	452.563	121.57	77.57	159.94	183.46	285	197.924	43.5	213.38	263.87	344.703	126.93	146.53	237.97	63.237	378.6	1097.43	31.78	117.84	23.31
trans-1,2-Dichloroethene	ug/m3	200	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	0.14 U	0.14 U	0.14 U	0.14 U	0.28 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.16 U	0.2	0.19 U	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
Trichlorofluoromethane	ug/m3	500	1.8	2.6	0.2	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
Trichlorotrifluoroethane	ug/m3	NA	0.57	0.64	0.27	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
Vinyl acetate	ug/m3	NA	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	2.5 U	2.5 U	2.3 J	0.88 J	2.5 U	2.5 U
Vinyl chloride	ug/m3	1.9	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	0.09 U	0.09 U	0.09 U	0.09 U	1	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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-2-090619	IA-2-021420	IA-2-09092020	IA-2-10292020	IA-2-030821	IA-2	IA-2	IA-2	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
Sample Date:			9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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
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	0.37 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	**530**	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.45	0.71	0.29
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	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	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	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	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.68	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	6.1	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.31	0.17 U	0.17 U	0.62	0.15 U	0.23	0.17 U	0.17 U	0.086 J	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	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	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	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
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.2	0.15 U	0.093 J	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.52	0.39	0.22
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	0.68 J	1.3 J	4.1 U	4.1 U	0.77 J	2.5 J	4.1 U	1.5 J	4.1 U	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	1.9	2	1.2
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.14 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
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 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
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.47	0.14 U	0.14 U	0.14 U	0.12 U	2.2	0.14 U	0.37	0.14 U	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
Acetone	ug/m3	500	6.4	7.9	13	14	4.8	16	5.5	10	6.6	18	12	17	24	9.7	7.5	50	11	19	6.7	11	14	21	6.7
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.39	0.36	0.45	1.1	0.51	0.45	0.41	0.13	0.46	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
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 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
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.23 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	1.4 U	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	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	0.93 U	0.37 J	1.1 U	1.1 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	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.37	0.42	0.46	0.37	0.46	0.43	0.22 U	0.48	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
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	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	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.19	0.17 U	**4**	0.27	0.097 J	0.21	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**0.53**	0.48
Chloromethane	ug/m3	80	0.9	1	0.14 U	0.14 U	0.12 U	1.5	1.3	1	1	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
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.19	33	0.14 U	0.12 U	0.13 J	0.16	0.14 U	0.14 U	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	0.94	0.49	0.59	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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.46	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
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 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
Dichlorodifluoromethane	ug/m3	500	1.6	1.4	0.17 U	2.6	2	2.3	2	2.6	1.1	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
Ethanol	ug/m3	NA	22	5.6	32	16	5	53	6	4.9	10	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	4.5	5	13	40	17
Ethyl acetate	ug/m3	NA	0.13 U	0.13 U	1.3 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 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
Ethylbenzene	ug/m3	290	0.39	0.15 U	0.14 J	0.66	0.07 J	0.17	0.15 U	0.15 U	0.15 U	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
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA	4.9 U	4.9 U	4.9 U	4.9 U	4.2 U	4.9 U	4.9 U	4.9 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
Isopropyl alcohol	ug/m3	NA	0.8 J	3.4 U	3.4 U	2.5 J	2.9 U	2 J	0.74 J	0.65 J	0.79 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
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	1.3	0.3 U	0.44	2	0.2 J	0.55	0.3 U	0.3 U	0.3 U	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
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.61	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	17	0.39 J	0.64 J	1.2 U	1.2 U	1.5	0.79 J	1.2 U	1.2 U	1.2 U	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
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.32	0.14 U	0.14 U	0.51	0.12 U	0.14 U	0.14 U	0.14 U	0.1 J	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
o-Xylene	ug/m3	NA	0.46	0.15 U	0.2	0.79	0.086 J	0.23	0.15 U	0.15 U	0.082 J	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
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 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	0.29	0.15	0.13 U	0.51	0.15 U	0.15 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.4	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	0.24 U	0.59	**620**	0.72	0.14 J	0.58	0.68	0.24 U	0.42	**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
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	1.4	1 U	0.88 U	1 U	1 U	1 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
Toluene	ug/m3	500	1.3	0.3	0.69	4.1	0.45	1.3	0.22	0.29	0.39	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
Total VOCs	ug/m3	NA	37.5	18.96	2142.17	45.62	17.573	88.373	18.91	23.7	22.998	95.14	74.05	73.83	88.66	72.65	27.82	121.36	211.25	45.43	23.79	29.64	48.81	85.2	36.24
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	**770**	0.23	0.16 U	0.22	0.22	0.19 U	0.19 U	**3.9**	0.49	**1.7**	**1.5**	0.53	0.77	**1.8**	0.27 U	0.27 U	**1.1**	0.54	0.75	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	500	1.1	1.2	130	1.3	1.1	1.3	1.2	1.3	1.1	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
Trichlorotrifluoroethane	ug/m3	NA	1.1 U	0.42 J	1.1 U	0.56 J	0.39 J	0.7 J	0.48 J	0.48 J	0.44 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
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.089 U	0.089 U	0.077 U	0.089 U	0.089 U	0.089 U	0.09 U	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	0.13 U	0.13 U	0.18	0.13 U	0.13 U	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
Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-3-021910	IA-3-032610	IA-3-043010	IA-3-052810	IA-3-070110	IA-3-091610	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
Sample Date:			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	12/19/2014
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	0.46	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.11 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
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	0.21 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
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	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.11 U	0.19 U
1,1-Dichloroethane	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	0.12 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
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	0.12 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
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.15 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.26	0.34	0.46	0.6	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
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	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.077 U	0.27 U
1,2-Dichlorobenzene	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	0.18 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
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	0.056 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
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	0.14 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
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	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
1,3-Butadiene	ug/m3	NA	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	0.55	0.078 U	0.044 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	0.18 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
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	0.18 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
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	0.18 U	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	1.6	0.51	1	2.2	3.3	0.95	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
2-Hexanone	ug/m3	NA	0.39	0.2 U	0.29	0.52	0.67	0.2 U	0.2 U	0.2 U	4.1 U	0.24	0.093 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
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	0.15 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
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.34	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
Acetone	ug/m3	500	7.3	3.8	7.7	15	21	11	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
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.3	0.39	0.35	0.23	0.66	0.11	0.75	0.23	0.75	0.54	2.4	0.41	0.29	0.5
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	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.052 U	0.18 U
Bromodichloromethane	ug/m3	0.46	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	0.067 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	0.52 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
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	0.12 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
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	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
Carbon tetrachloride	ug/m3	0.54	0.43	0.43	0.49	0.54	**0.57**	0.41	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
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	0.14 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
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	0.079 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
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**3.7**	0.24 U	0.24 U	0.24 U	0.24 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
Chloromethane	ug/m3	80	1.2	1.1	0.85	1.2	1.2	1.1	0.98	0.97	1.2	1.4	0.84	1.1	1.4	1.3	0.072	1.3	1.3	1.1	1	1.3	1.2	0.73	0.85
cis-1,2-Dichloroethene	ug/m3	100	0.59	0.2 U	1.3	0.2 U	0.51	0.2 U	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
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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.34	0.12 U	0.069 U	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	0.43 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
Dichlorodifluoromethane	ug/m3	500	3	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	0.17	1.8	2.7	1.8	2.7	1.5	2.1	2.2	1.8
Ethanol	ug/m3	NA	38	3.6	5.3	5.5	7	8	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
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	0.11 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
Ethylbenzene	ug/m3	290	0.22 U	0.22 U	0.26	0.23	0.29	0.47	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
Hexachlorobutadiene	ug/m3	NA	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	0.37 U
Hexane	ug/m3	NA	0.29	0.19	1.4	0.55	0.45	0.58	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
Isopropyl alcohol	ug/m3	NA	2	0.64	3.4	0.12 U	0.76	8.8	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
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.43 U	0.46	0.8	0.99	1.3	1.6	0.43 U	1.4	0.55	0.54	0.38	0.24 J	0.4	1.5	0.3	0.31	0.72	1.1	0.19 J	1.6	0.84	0.62	0.58
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
Methylene chloride	ug/m3	17	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.57	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
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	0.11 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.32	0.2 U	0.44	0.2 U	0.2 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
o-Xylene	ug/m3	NA	0.22 U	0.22 U	0.32	0.43	0.58	0.64	0.22 U	0.48	0.23	0.23	0.13	0.11 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
Propylene (Propene)	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.3 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
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.21 U	0.21 U	0.21 U	0.23	0.34	0.26	0.21 U	0.21 U	0.21 U	0.21 U	0.041 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
Tetrachloroethene	ug/m3	5	1.3	0.34 U	4.8	0.35	1.1	0.76	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
Tetrahydrofuran	ug/m3	NA	0.15 U	0.15 U	0.15 U	0.16	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.08 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
Toluene	ug/m3	500	0.46	0.81	1.5	0.93	1.1	2.3	0.41	2.7	0.58	0.95	1.5	0.27	0.72	2.8	0.13	0.56	0.9	4.6	0.66	3.4	1.8	2.5	1.3
Total VOCs	ug/m3	NA	60.47	15.61	37.29	33.96	48.17	48.05	26.9	47.28	33.49	27.48	17.93	11.63	28.53	38.79	9.242	29.897	59.558	60.1	36.28	56.59	95.5	101.414	628.32
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	0.12 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
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	0.23 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
Trichloroethene	ug/m3	1	0.4	0.27 U	**1.5**	0.27 U	0.47	0.27 U	**1.7**	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.17 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
Trichlorofluoromethane	ug/m3	500	1.6	1.3	1.2	1.3	1.5	2.8	1.2	1.7	1.6	1.7	1	0.92	1.6	1.5	0.2	1.3	1.5	1.6	1.4	1.7	1.4	1.3	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.52	0.57	0.45	0.52	0.54	0.45	0.55	0.67	0.74	0.54	0.69	0.44	0.56	0.54	0.27	0.65	0.65	0.62	0.61	0.51	0.59	0.57	0.63
Vinyl acetate	ug/m3	NA	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	1.4 U	2.5 U
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.13	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-03-032715	IA-3-061115	IA-3-091615	IA-3-121815	IA-3-021816	IA-3-080516	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-3	IA-3	IA-3	IA-4	IA-4-020309	IA-4-021109	IA-4-021809
Sample Date:			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	3/29/2022	9/15/2022	3/17/2023	1/16/2009	2/3/2009	2/11/2009	2/18/2009
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	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	--	--	--	--
1,1,1-Trichloroethane	ug/m3	500	0.05 J	0.19 U	0.092 J	0.19 U	0.19 U	0.19 U	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	0.19 U	0.19 U	0.64	10	0.62	1.1	1.1
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	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U
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	0.55	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U
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	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.73	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	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.42	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	0.52 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.12 J	0.13 J	0.13 J	0.17 U	0.17 U	0.26	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	0.14 J	0.17 U	0.21	0.26	0.37	0.74	0.65
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	**0.72**	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U
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	0.84 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
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	**1.3**	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U
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	0.038 J	0.079 J	0.041 J	0.17 U	0.17 U	0.17 U	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	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.045 J	0.078 U	0.062 J	0.17	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	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.33	0.77
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	0.58 J	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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	0.21 U	0.21 U	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	0.21 U	0.21 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	1.4 J	1.5 J	0.96 J	0.99 J	0.8 J	2.3 J	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	1.2 J	4.1 U	2.5 J	21	4.4	6	3.2
2-Hexanone	ug/m3	NA	0.27	0.14	0.14 U	0.14 U	0.14 U	0.47	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	0.29 U	0.14 U	0.35	0.2 U	0.33	0.73	0.39
4-Ethyltoluene	ug/m3	NA	0.086 J	0.045 J	0.066 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	0.4	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.15	0.13 J	0.14 U	0.24	0.14 U	0.14 U	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	0.14 U	0.21	0.18	0.2 U	0.2 U	0.43	0.28
Acetone	ug/m3	500	11	10	15	9.9	8.5	19	4.9	14	7.9	12	13	8.5	6.7	13	15	16	7.4	9.3	15	17	10	15	20
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.5	0.28	0.43	1.1	0.55	0.62	0.43	0.5	0.51	0.51	0.94	0.48	0.35	0.25	0.6	0.46	0.4	0.17	1.1	1.1	0.68	1.8	3
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	0.16 U	0.18 U	0.18 U	0.36 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	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 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	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U
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	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	0.092 J	0.13 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	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.36	0.36	0.39	0.53	0.41	0.43	0.42	0.39	0.4	0.51	0.22 U	0.37	0.42	0.44	0.15 J	0.43	0.22 U	0.41	0.22 U	0.4	0.43	0.5	**0.58**
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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U
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	0.19 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	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.41	0.13 U
Chloroform	ug/m3	0.5	0.065 J	0.14 J	0.21	0.28	0.17 U	**0.55**	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	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	0.99	1.7	1.1	1.4	0.99	1.4	1.2	1.2	1.2	2.3	1.3	1	1.1	0.14 U	0.12 U	1.2	1.4	1.2	1	1.2	0.99	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.11 J	0.15	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	0.14 U	0.14 U	0.14 U	2.4	0.2 U	1.1	1.1
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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	1	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	0.12 U	0.12 U	0.16	0.17 U	0.17 U	0.44	0.64
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	0.73	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.4	2.3	1.6	2.4	1.6	0.64	0.87	1.4	2.3	2.2	2.3	0.17 U	1.5	0.17 U	0.15 U	2.4	2	2.6	1.2	1.9	2.2	2.5	2.8
Ethanol	ug/m3	NA	8.7	16	25	14	61	21	2.8	16	94	11	18	24	4.1	80	19	110	17	16	15	5.3	8.9	12	18
Ethyl acetate	ug/m3	NA	0.27	0.13 U	4.5	0.13 U	1.1	0.13 U	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	1.3 U	1.3 U	1.3 U	0.37 U	0.37 U	0.18 U	0.19
Ethylbenzene	ug/m3	290	0.13 J	0.12 J	0.15 J	0.41	0.15 U	0.22	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	0.15 U	0.15 U	0.23	0.25	0.29	0.65	0.78
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	0.75 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	5.1	0.45 J	0.72 J	1.9 J	0.49 J	0.59 J	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	4.9 U	1.2 J	0.82 J	0.9	0.66	1.2	1.7
Isopropyl alcohol	ug/m3	NA	1.9 J	0.87 J	2.1 J	3.4 U	3.4 U	5.4	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	1 J	0.91 J	2.2 J	3.5	3.3	4.7	4.8
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.37	0.39	0.5	1.7	0.42	0.81	0.15 J	0.9	0.26 J	1.1	1.3	2.3	0.3 U	0.49	0.31	0.61	0.22 J	0.23 J	0.71	0.76	0.89	2.1	2.6
Methyl methacrylate	ug/m3	NA	0.14 U	--	0.14 U	--	0.14 U	--	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	0.14 U	0.14 U	0.14 U	--	--	--	--
Methylene chloride	ug/m3	17	2.1	0.54 J	0.73 J	1.2	0.69 J	0.71 J	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	0.76 J	1.2 U	1.2 U	2.3	**29**	1.7	2.5
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	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA	--	--	--	0.18 U	--	0.18 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.13 J	0.19	0.17	0.39	0.2	0.22	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	0.14 U	0.13 J	0.32	0.23	0.2 U	0.58	0.79
o-Xylene	ug/m3	NA	0.14 J	0.14 J	0.19	0.41	0.17	0.29	0.15 U	0.29	0.11 J	0.43	0.57	0.74	0.15 U	0.2	0.13 J	0.25	0.11 J	0.11 J	0.29	0.27	0.33	0.78	0.87
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.87 J	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	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.09 U	0.09 U
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.15 U	0.033 J	0.087 J	0.15 U	0.15 U	0.15 U	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	0.15 U	0.15 U	0.15 U	0.21 U	0.21 U	0.22	0.23
Tetrachloroethene	ug/m3	5	0.24 U	0.26	0.2 J	**13**	0.24 U	0.5	0.24 U	0.3	0.16 J	0.3	0.83	0.21 J	0.24 U	0.4	0.28	0.43	0.28	0.24 U	0.51	**7.3**	0.58	4.4	3.4
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.18	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	1 U	1 U	1 U	13	1.2	1.3	0.47
Toluene	ug/m3	500	0.63	0.77	1.3	1.6	1	1.2	0.43	1.3	0.57	1.7	1.6	7.1	0.26	0.76	0.56	1.3	0.32	0.39	1.7	1.8	1.3	4.3	5.8
Total VOCs	ug/m3	NA	32.84	33.95	58.038	50.92	77.14	54.19	13.18	39.45	108.41	43.1	53.6	58.14	15.63	100.42	45.01	143.354	34.2	34.69	46.07	99.73	68.84	70.42	83.11
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	0.083 J	0.37 J	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	0.072 J	0.19 U	0.22	0.64	0.19 U	0.19 U	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	0.14 J	0.19 U	0.21	**4.7**	0.48	**1.7**	**1.5**
Trichlorofluoromethane	ug/m3	500	1	1.7	1.3	1.6	1.2	1	1.3	1.1	1.1	1.2	1.9	1.2	1.2	1.1	0.99	1.4	1.2	1.3	1.3	2	1.3	1.6	3
Trichlorotrifluoroethane	ug/m3	NA	0.47 J	0.69 J	0.55 J	0.59 J	0.54 J	0.56 J	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	0.63 J	0.53 J	0.44 J	0.72	0.59	0.51	0.45
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	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	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 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	0.09 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	0.089 U	0.089 U	0.09 U	0.29	0.13 U	0.2	0.22

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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-4-022609	IA-4-041409	IA-4-042409	IA-4-091709	IA-4-092409	IA-4-100109	IA-4-100809	IA-4-012810	IA-4-020510	IA-4-021210	IA-4-021910	IA-4-032610	IA-4-043010	IA-4-052810	IA-4-070110	IA-4-091610	IA-4-120710	IA-4-021711	IA-4-060211	IA-4-091511	IA-4-120811	IA-4-030812	IA-4-061412
Sample Date:			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	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--	0.37 U	0.37 U
1,1,1-Trichloroethane	ug/m3	500	0.45	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.76	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
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U
1,1-Dichloroethane	ug/m3	430	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	0.12 U
1,1-Dichloroethene	ug/m3	20	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U
1,2,4-Trimethylbenzene	ug/m3	52	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 J	0.094 J	0.15 U	0.19
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U	0.12 U
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J
1,3-Butadiene	ug/m3	NA	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	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	--	--
2-Butanone	ug/m3	500	2.5	1.1	1.6	1.5	2	1.3	1.2	0.3 U	0.69	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-Hexanone	ug/m3	NA	0.2 U	0.14 U	0.2 U	0.29	0.45	0.32	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086 J	0.32	0.098 J
4-Ethyltoluene	ug/m3	NA	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.068 J
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.2 J	0.098 J	0.15	0.13
Acetone	ug/m3	500	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	9.1
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.76	0.59	0.44	0.4	0.43	0.37	0.48	0.16 U	0.88	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.35	0.23
Benzyl chloride	ug/m3	NA	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U
Bromodichloromethane	ug/m3	0.46	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U
Bromoform	ug/m3	7.3	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U
Bromomethane	ug/m3	NA	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.24
Carbon disulfide	ug/m3	NA	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.31	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 J	0.93 U	0.93 U	0.052 J
Carbon tetrachloride	ug/m3	0.54	0.46	0.22 U	0.45	0.41	0.4	0.46	0.4	0.31 U	0.43	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46	**0.57**	**0.68**	0.52	0.48	0.47	0.43
Chlorobenzene	ug/m3	200	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U
Chloroethane	ug/m3	500	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U
Chloroform	ug/m3	0.5	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.46	0.39	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	**3.3**	0.24 U	0.24 U	0.24 U	0.24 J	0.085 J	0.073 U	0.13 J
Chloromethane	ug/m3	80	1	1.1	1.2	0.9	1.1	1	1	1.3	1.3	1.3	1.2	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4	1	1.3
cis-1,2-Dichloroethene	ug/m3	100	0.98	0.61	1.7	0.2 U	0.2 U	0.84	0.48	0.2 U	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.2 U	0.2 U	0.19	0.059 U	0.12 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U
Cyclohexane	ug/m3	NA	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U
Dichlorodifluoromethane	ug/m3	500	2.6	2.1	2.4	2.1	2	2.2	2.2	2.4	2.5	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
Ethanol	ug/m3	NA	8	5.2	5.5	6	6.5	4.9	5.6	7.7	34	17	31	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	2.4	2.5	9.4
Ethyl acetate	ug/m3	NA	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26	0.18 U	0.18 U	0.16	0.21	0.38
Ethylbenzene	ug/m3	290	0.29	0.16	0.22 U	0.22 U	0.27	0.22 U	0.26	0.22 U	0.26	0.22 U	0.22 U	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 J	0.16	0.17	0.14
Hexachlorobutadiene	ug/m3	NA	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U
Hexane	ug/m3	NA	0.66	0.43	0.34	0.42	2.2	0.49	0.93	0.18 U	0.37	1.3	0.49	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7 J	0.35 J	0.55 J	0.47 J
Isopropyl alcohol	ug/m3	NA	3.9	0.18 U	13	5.6	5.2	0.25 U	0.25 U	0.96	0.25 U	0.25 U	1.9	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 J	2.9 U	2.9 U	2.9 U
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.89	0.58	0.49	0.61	0.93	0.69	1	0.43 U	0.81	0.43 U	0.43 U	0.49	0.8	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.41	0.27	0.38
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
Methylene chloride	ug/m3	17	1.3	1.9	2.2	0.7 U	9.7	0.7 U	0.7 U	1.5	0.7 U	1.9	0.71	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 J	1.5	2	0.72 J
Methyl-t-butyl ether	ug/m3	190	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.21	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.22	0.32	0.2 U	0.51	0.2 U	0.2 J	0.071 J	0.12 U	0.11 J
o-Xylene	ug/m3	NA	0.33	0.22	0.22 U	0.22 U	0.42	0.28	0.4	0.22 U	0.31	0.22 U	0.22 U	0.22 U	0.3	0.44	0.5	0.57	0.22 U	0.53	0.22 U	0.22 J	0.15	0.11 J	0.17
Propylene (Propene)	ug/m3	NA	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.21 U	0.15 U	0.21 U	0.21 U	0.21	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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
Tetrachloroethene	ug/m3	5	3.4	2.4	**7.9**	0.75	0.34 U	2	1.1	0.34 U	0.34 U	0.34 U	1.4	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
Tetrahydrofuran	ug/m3	NA	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.076 J	0.088 U	0.055 J
Toluene	ug/m3	500	2.3	1	1	1.1	1.3	0.76	1.2	0.19 U	0.79	0.63	0.47	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	1.6	0.32	0.8
Total VOCs	ug/m3	NA	42.18	29.62	64.78	31.07	51.82	29.22	29.46	17.09	50.31	35.15	48.16	21.17	36.9	39.73	72.6	56.73	32.62	50.4	28.06	30.62	22.59	18.33	28.53
trans-1,2-Dichloroethene	ug/m3	200	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U
Trichloroethene	ug/m3	1	0.88	0.78	**2**	0.27 U	0.27 U	**1.1**	0.57	0.27 U	0.27 U	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
Trichlorofluoromethane	ug/m3	500	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3	1.4	1.6	1.5	1.3	1.3	1.9	2.4	1.2	1.8	1.4	1.8	1.3	0.87	1.5
Trichlorotrifluoroethane	ug/m3	NA	0.57	0.54	0.61	0.49	0.48	0.47	0.5	0.38 U	0.55	0.58	0.55	1.3	0.48	0.51	0.59	0.43	0.54	0.7	0.71	0.52	0.71	0.44	0.56
Vinyl acetate	ug/m3	NA	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U
Vinyl chloride	ug/m3	1.9	0.13 U	0.1 U	0.2	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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-4-091312	IA-4-010313	IA-4-031513	IA-4-060713	IA-4-090613	IA-4-121313	IA-4-030714	IA-4-061314	IA-4-091214	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
Sample Date:			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	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	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	0.44 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	0.5 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	0.19 U	0.055 U	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	0.19 U	0.14 J	0.19 U	8	0.78	0.22 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	0.24 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	0.27 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	0.11 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	0.22 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	0.04 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	0.16 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	0.04 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	0.16 U
1,2,4-Trichlorobenzene	ug/m3	NA	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.3 U
1,2,4-Trimethylbenzene	ug/m3	52	0.38	0.17	0.13 J	0.47	0.2	0.17 U	0.56	0.26	0.17	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
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	0.077 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	**0.66**	0.27 U	0.31 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	0.12 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	0.72 J	0.21 U	0.24 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14	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	0.051 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	0.14 U	0.16 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	0.046 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	0.18 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.12 J	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.098 U	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
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.47	0.11	0.044 U	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	0.078 U	0.088 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	0.12 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	0.59 J	0.21 U	0.24 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	0.12 U	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	0.21 U	0.24 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	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	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
2-Hexanone	ug/m3	NA	0.18	0.14	0.25	0.51	0.14 U	0.14 U	0.15	0.36	0.2	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	0.14 U	0.16 U
4-Ethyltoluene	ug/m3	NA	0.12 J	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.098 U	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	0.17 U	0.2 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14	0.28	0.56	0.47	0.16	0.48	1.3	1	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
Acetone	ug/m3	500	12 B	3.3	44	36	18	29	29	37	38	27	42	28	96	28	31	38	11	31	36	11	5	4	5.9
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.64	0.11	0.82	0.55	0.47	0.56	2.2	0.68	0.39	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
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	0.052 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	0.21 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	0.067 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	0.27 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	0.21 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	0.41 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.13 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 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	0.14 U	1.6 U
Carbon disulfide	ug/m3	NA	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	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
Carbon tetrachloride	ug/m3	0.54	0.36	0.22	0.41	**0.65**	0.45	0.46	0.45	0.4	0.39	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
Chlorobenzene	ug/m3	200	0.16 U	0.16	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	0.18 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	0.053 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	0.11 U
Chloroform	ug/m3	0.5	0.19	0.17 U	0.11 J	0.17 U	0.27	0.44	0.46	**0.84**	**1.2**	**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
Chloromethane	ug/m3	80	1.3	0.072	1.3	1.6	1	1.1	1.4	1.2	0.89	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
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.04 U	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
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	0.045 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	0.18 U
Cyclohexane	ug/m3	NA	0.26	0.12	0.12 U	0.12 U	0.12 U	0.12 U	0.33	0.12 U	0.069 U	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	0.12 U	0.14 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	0.085 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	0.34 U
Dichlorodifluoromethane	ug/m3	500	2.8	0.17	1.7	3.3	1.8	2.7	1.3	2.1	2.1	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
Ethanol	ug/m3	NA	7.3	2.6	46	79	71	91	83	240	150	260	190	330	57	69	120	2.6 U	47	290	550	11	12	2.9	22
Ethyl acetate	ug/m3	NA	2.4	0.13 U	0.73	0.94	0.13 U	0.13 U	0.88	0.26	0.38	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
Ethylbenzene	ug/m3	290	0.38	0.15	0.32	0.43	0.19	0.15 U	0.57	0.27	0.12	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
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	0.21 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	0.43 U
Hexane	ug/m3	NA	5	4.9	0.89 J	2.8 J	0.53 J	4.9 U	1.3 J	0.75 J	0.58 J	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
Isopropyl alcohol	ug/m3	NA	1.4 J	3.4 J	3.4 U	4	1.6 J	8.4	4.4	3.9	4.8	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
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	1.2	0.3	1.1	1.6	0.53	0.28 J	1.6	0.86	0.4	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
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	0.082 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	0.086 J	0.14 U	0.14 U	0.16 U
Methylene chloride	ug/m3	17	12 B	1.2	0.97 J	3.1	0.89 J	0.69 J	0.72 J	0.61 J	0.64 J	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
Methyl-t-butyl ether	ug/m3	190	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	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 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
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	0.22	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.41	0.14	0.32	0.53	0.16	0.14 U	0.66	0.39	0.17	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
o-Xylene	ug/m3	NA	0.41	0.15	0.43	0.57	0.23	0.15 U	0.66	0.33	0.16	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
Propylene (Propene)	ug/m3	NA	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	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
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.093 J	0.15	0.099 J	0.15 U	0.15 U	0.15 U	0.23	0.46	0.4	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
Tetrachloroethene	ug/m3	5	1.7	0.24 J	0.21 J	0.45	0.3	0.24 U	0.31	0.32	0.23	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
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.094	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	0.1 U	0.12 U
Toluene	ug/m3	500	2.9	0.13	1.5	3	1.4	0.75	3.4	1.9	1.4	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
Total VOCs	ug/m3	NA	54.29	20.572	106.436	141.06	98.6	136.65	134.72	298	208.944	309.8	257.8	373.96	364.963	118.84	162	48.15	64.043	347.79	628.48	33.71	116.81	18.85	36.86
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	0.04 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	0.45 J	0.14 U	0.16 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	0.045 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	0.18 U
Trichloroethene	ug/m3	1	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	**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
Trichlorofluoromethane	ug/m3	500	1.7	0.2	1.2	2.2	1.3	1.5	1.3	1.4	1.3	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
Trichlorotrifluoroethane	ug/m3	NA	0.59	0.27	0.66	1.6	0.65	0.58	0.49	0.54	0.55	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
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	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	1.7 J	0.88 J	2.5 U	2.5 U	2.8 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	0.09 U	0.026 U	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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10
Sample ID:			IA-4-021420	IA-4-09092020	IA-4-10292020	IA-4-030821	IA-4	IA-4	IA-4	IA-4	LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10
Sample Date:			2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	5/15/2009	5/15/2009	5/15/2009	5/15/2009	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	0.44 U	0.44 U	0.44 U	0.37 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	0.16 U	0.19 U	0.16 J	0.19 U	0.19 U	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.5	0.49	0.53
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	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	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 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	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.61	0.15 U	0.21	0.17 U	0.17 U	0.09 J	0.25 U	0.25 U	0.25 U	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	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	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	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
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.15 U	0.086 J	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	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	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	1.6 J	1.9 J	0.98 J	3.5 U	2.6 J	4.1 U	2 J	4.1 U	3.3	3.4	2.1	2.6	2	1.6	3.1	2.5	2.6	1.4
2-Hexanone	ug/m3	NA	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.14 U	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48	0.43	0.29
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	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	0.14 U	0.14 U	0.12 U	0.14 U	0.17	0.59	0.1 J	0.42	0.39	0.32	0.36	0.54	0.27	0.32	0.3	0.61	0.23
Acetone	ug/m3	500	9.3	13	14	6.6	15	5.5	11	5.8	12	13	10	11	8.5	7.7	13	11	9.8	6.9
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.37	0.23	1.1	0.5	0.41	0.4	0.12	0.48	0.54	0.6	0.67	0.55	0.56	0.51	0.53	0.6	0.51	0.57
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.23 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	0.93 U	0.31 J	1.1 U	1.1 U	1.1 U	0.16 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	0.45	0.47	0.38	0.51	0.42	0.22 U	0.5	0.44	**0.7**	**0.68**	**0.71**	**0.68**	**0.68**	**0.63**	**0.68**	**0.7**	**0.64**	**0.66**
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.25	0.091 J	0.18	0.18	0.17 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
Chloromethane	ug/m3	80	1	0.14 U	1	0.12 U	1.5	1.3	1	0.99	1	0.98	1	0.95	1	1	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.41	0.14 U	0.14 U	0.12 U	0.11 J	0.22	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.21	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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.4	2	2.6	0.15 U	2.5	2	2.5	1.1	2.5	2.3	2.6	2.4	2.7	2.4	2.4	2.8	2.3	2.7
Ethanol	ug/m3	NA	6.7	81	14	5.6	45	5.6	9.1	9.2	65	9	6.5	5.9	6	5.6	5.9	14	44	14
Ethyl acetate	ug/m3	NA	0.13 U	1.3 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.3 U	0.18 U	0.18 U	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	0.15 U	0.15 J	0.63	0.07 J	0.16	0.15 U	0.15 U	0.15 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	0.27	0.22 U
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	4.9 U	4.9 U	0.85 J	4.2 U	4.9 U	4.9 U	0.97 J	4.9 U	1.1	0.21	0.18 U	0.18	0.24	0.18 U	0.19	0.21	0.2	0.18 U
Isopropyl alcohol	ug/m3	NA	3.4 U	3.4 U	2.6 J	2.9 U	1.9 J	1.7 J	0.84 J	0.65 J	3.3	3.4	3.7	3.5	3.6	3.4	4.4	3.6	2.8	3.2
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.3 U	0.44	1.9	0.18 J	0.5	0.3 U	0.21 J	0.21 J	0.58	0.57	0.58	0.55	0.49	0.5	0.48	0.53	1	0.5
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	17	0.58 J	0.74 J	1.2	1.2	0.74 J	1.2 U	1.2 U	1.2 U	5.9	1.5	1.5	1.6	1.9	1.6	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.14 U	0.14 U	0.6	0.12 U	0.21	0.091 J	0.14 U	0.12 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.15 U	0.18	0.82	0.073 J	0.22	0.15 U	0.094 J	0.091 J	0.28	0.28	0.27	0.27	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	0.09 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
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.15 U	0.15 U	0.14 J	0.13 U	0.56	0.15 U	0.15 U	0.15 U	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	1.4	0.35	0.74	0.14 J	0.52	1	0.24 U	0.46	0.47	0.47	0.54	0.66	0.64	0.6	0.73	0.53	0.46	0.46
Tetrahydrofuran	ug/m3	NA	0.1 U	1 U	1 U	0.88 U	1 U	1 U	1 U	1 U	0.15 U	0.15 U	0.15 U	0.15 U	0.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	ug/m3	500	0.3	0.69	3.9	0.41	1.1	0.22	0.32	0.48	0.73	0.7	0.58	0.59	0.51	0.53	0.57	0.53	0.54	0.47
Total VOCs	ug/m3	NA	22.95	102.86	45.41	16.944	76.346	20.631	31.124	21.731	101.16	40.84	34.22	35.39	33.07	29.56	38.82	43.33	71.12	36.75
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	ug/m3	1	0.42	0.11 J	0.28	0.16 U	0.21	0.34	0.19 U	0.19 U	0.27 U	0.28	0.27	0.29	0.34	0.27	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	500	1.2	1.1	1.4	1.1	1.3	1.2	1.3	1.1	1.3	1.3	1.2	1.1	1.4	1.3	1.1	1.4	1	1.4
Trichlorotrifluoroethane	ug/m3	NA	0.41 J	0.5 J	0.48 J	0.47 J	0.6 J	0.55 J	0.58 J	0.42 J	0.63	0.6	0.65	0.62	0.64	0.57	0.59	0.68	0.62	0.58
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	2.5 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Vinyl chloride	ug/m3	1.9	0.09 U	0.089 U	0.089 U	0.077 U	0.089 U	0.089 U	0.089 U	0.09 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:
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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-5															
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-5-020309	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
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	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
Analyte	**Units**																								
1,1,1,2-Tetrachloroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	59000	66000	26000	30000	54000	72000	11000	14000	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210	400	340
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	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
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	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
1,1-Dichloroethane	ug/m3	4100	4400	5700	7000	1600	2300	690	1400	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29	34	33
1,1-Dichloroethene	ug/m3	570	1200	330	640	340	560	97	210	2500	290	130	190	61	160	160	160	98	30	18	21	15	13	15	11
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	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
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	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
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	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
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	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
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	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
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	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
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	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	5 U	5 U	5 U	1.3 U	5 U	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 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	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
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	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
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	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
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	3.5	8.9	12	11	36	10	36	6.4	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000
2-Hexanone	ug/m3	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	4 U	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
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	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
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	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
Acetone	ug/m3	35	16	9.6 U	9.6 U	53	24	26	12	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B
Benzene	ug/m3	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U	13	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
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	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
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	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
Bromoform	ug/m3	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 U	2.1 U	10 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	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
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	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
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	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
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	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
Chloroethane	ug/m3	170	250	700	590	41	44	17	33	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1	3.4	2.6 U
Chloroform	ug/m3	20	34	9.6	15	13	23	3.6	7.5	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U	4.8 U	1.1	1.2	4.9 U
Chloromethane	ug/m3	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 U	0.41 U	2.1 U
cis-1,2-Dichloroethene	ug/m3	2000	2200	6100	7600	610	1200	560	1300	2900	710	400	410	100	150	270	250	170	58	32	43	31	17	27	27
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	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
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	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
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	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
Dichlorodifluoromethane	ug/m3	5 U	170	5 U	5 U	5.4	7	2.6	5 U	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4	3.7	4.9 U
Ethanol	ug/m3	33	40	12	8.3	39	1.8 U	8.6	1.8 U	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23	19	24 J
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	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
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	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 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	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
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	5	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	7.1 U	1.4 U	0.7 U	3.5 U
Isopropyl alcohol	ug/m3	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1	190	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11	13	25 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	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.7 U
Methyl methacrylate	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.82 U	4.1 U
Methylene chloride	ug/m3	7 U	19	7 U	17	7 U	13	19	12	7.8	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
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	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
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	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
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	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 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	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
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	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
Tetrachloroethene	ug/m3	600	1200	2300	2500	73	310	31	170	210	310	190	97	8	68 U	21	25	19	8.9	6.8 U	6.7	6.8 U	4	4100	6.8 U
Tetrahydrofuran	ug/m3	6.3	21	19	3 U	32	14	37	5.1	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200	11000	30000
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	13	4.7	3.8 U	3.8 U	0.95 U	38 U	2.2	3.4	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.75 U	1.6	3.8 U
Total VOCs	ug/m3	98109.4	118153.4	67602	75417.6	65898.4	96366.5	15486.25	23041.1	262580.1	64776.9	33028.4	17942.5	10993.2	120040	183552.2	392552.7	224084	22061.2	46013.1	73041.1	50337.4	14946.7	25308.9	50434.3
trans-1,2-Dichloroethene	ug/m3	9.2	23	69	180	4 U	8.8	2.5	8	26	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	2 U	4 U	2 U	4 U	0.79 U	0.79 U	4 U
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	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
Trichloroethene	ug/m3	31000	42000	25000	25000	8600	19000	2700	5500	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410	660	790
Trichlorofluoromethane	ug/m3	520	540	1300	1800	430	840	240	370	3500	200	120	67	16	56 U	27	41	2.8 U	53	7	7.4	5.8	5.1	5.8	5.6 U
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	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
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	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
Vinyl chloride	ug/m3	2.7	4.8	9.4	8.1	2.6 U	2.6 U	0.65	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	0.65 U	26 U	1.3 U	5.3	1.3 U	3	3.4	3.1	4.3	2.4	3.7	3.3

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-5																							
Sample ID:		EW-5-091511	EW-5-120811	EW-5-030812	EW-5-061412	EW-5-091312	EW-5-010313	EW-5-031513	EW-5-060713	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
Sample Date:		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	2/10/2017	9/7/2017	2/28/2018	9/12/2018
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	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
1,1,1-Trichloroethane	ug/m3	430	130	81	100	190	0.55 U	0.55 U	59	180	40	68	54	74	25	14	0.19 J	55	32	15	68	7.4	42	17	49
1,1,2,2-Tetrachloroethane	ug/m3	14 U	3.4 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	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
1,1,2-Trichloroethane	ug/m3	11 U	2.7 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	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
1,1-Dichloroethane	ug/m3	44	16	11	12	21	0.4 U	0.4 U	6.4	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
1,1-Dichloroethene	ug/m3	14	5	4.5	4.5	6.9	0.4 U	0.4 U	1.7	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
1,2,4-Trichlorobenzene	ug/m3	30 U	7.4 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	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
1,2,4-Trimethylbenzene	ug/m3	9.8 U	2.5 U	4.9 U	0.2 J	0.63	0.49 U	0.49 U	0.49 U	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
1,2-Dibromoethane (EDB)	ug/m3	15 U	3.8 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	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
1,2-Dichlorobenzene	ug/m3	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	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
1,2-Dichloroethane	ug/m3	8.1 U	2 U	2 U	0.17 J	0.4 U	0.4 U	0.4 U	0.4 U	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
1,2-Dichloropropane	ug/m3	9.2 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 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
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	9.8 U	2.5 U	4.9 U	0.49 U	0.19 J	0.49 U	0.49 U	0.49 U	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
1,3-Butadiene	ug/m3	4.4 U	1.1 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.1 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
1,3-Dichlorobenzene	ug/m3	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	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
1,4-Dichlorobenzene	ug/m3	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	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
1,4-Dioxane	ug/m3	7.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	36 U	--	--	--	--
2-Butanone	ug/m3	13000	2700	1800	870	840	12 J	1.7 J	1900	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800	29	4500	750	5500
2-Hexanone	ug/m3	8.2 U	2 U	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U	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
4-Ethyltoluene	ug/m3	9.8 U	2.5 U	4.9 U	0.49 U	0.18 J	0.49 U	0.49 U	0.49 U	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
4-Methyl-2-pentanone	ug/m3	8.2 U	2 U	4.1 U	0.27 J	0.34 J	0.41 U	0.41 U	0.41 U	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
Acetone	ug/m3	3400	710	400	440	670 B	9.5	8.5 J	610	6800	210	380	610	500	98	49	21	550	120	58	570	11	700	320	710
Benzene	ug/m3	6.4 J	2.8	2 J	1.1	3.7	0.32	0.47	1	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
Benzyl chloride	ug/m3	10 U	2.6 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	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
Bromodichloromethane	ug/m3	13 U	3.4 U	3.4 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	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
Bromoform	ug/m3	21 U	5.2 U	10 U	1 U	1 U	1 U	1 U	1 U	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
Bromomethane	ug/m3	7.8 U	1.9 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.18 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
Carbon disulfide	ug/m3	62 J	13 J	11 J	25	49	3.1 U	3.1 U	19	77	8.9	26	35	46	13	7.4	0.98 J	56	19	6.1 J	100	1.2 J	120	62	200
Carbon tetrachloride	ug/m3	13 U	1.2 J	3.1 U	0.4 J	0.38 J	0.63 U	0.39 J	0.63 U	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
Chlorobenzene	ug/m3	9.2 U	2.3 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 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
Chloroethane	ug/m3	7.5	1.3 U	2.6 U	2.9	5.3	0.26 U	0.26 U	1.5	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
Chloroform	ug/m3	9.8 U	1.1 J	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59	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
Chloromethane	ug/m3	4.1 U	1 U	2.1 U	0.21 U	0.21 U	0.21	1.1	0.41 U	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
cis-1,2-Dichloroethene	ug/m3	35	11	6.9	8.6	14	0.4 U	0.4 U	4.3	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
cis-1,3-Dichloropropene	ug/m3	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 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
Cyclohexane	ug/m3	6.9 U	1.7 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.16 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
Dibromochloromethane	ug/m3	17 U	4.3 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	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
Dichlorodifluoromethane	ug/m3	9.9 U	2.8	4.9 U	2.9	2.6	0.49	2.5	2.1	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
Ethanol	ug/m3	150 J	12 J	290	14	100	7.5	3.5 J	13	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
Ethyl acetate	ug/m3	7.2 U	3.6	26	4.2	30	0.36 U	1.2	2.6	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
Ethylbenzene	ug/m3	8.7 U	2.2 U	4.3 U	0.12 J	0.69	0.43 U	0.43 U	0.43 U	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
Hexachlorobutadiene	ug/m3	21 U	4.2 J	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	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
Hexane	ug/m3	280 U	70 U	9.4 J	4.3 J	2 J	14 J	2.2 J	14 U	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
Isopropyl alcohol	ug/m3	200 J	49 U	13 J	9.8 U	11	9.8 J	9.8 U	9.8 U	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
m,p-Xylene	ug/m3	17 U	4.3 U	5.4 J	0.87 U	1.9	0.87 J	0.87 U	0.87 U	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
Methyl methacrylate	ug/m3	8.2 U	2 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	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
Methylene chloride	ug/m3	69 U	4.2 J	15 J	11	2.5 JB	3.5 J	6.9	1.1 J	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
Methyl-t-butyl ether	ug/m3	7.2 U	1.8 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	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
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--	5.2 U	--	--	--	--
n-Heptane	ug/m3	8.2 U	2 U	4.1 U	0.41 U	0.52	0.41 U	0.41 U	0.41 U	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
o-Xylene	ug/m3	8.7 U	2.2 U	4.3 U	0.14 J	0.73	0.43 U	0.43 U	0.43 U	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
Propylene (Propene)	ug/m3	140 U	4.1 J	15 J	6.9 U	3.9 J	6.9 U	6.9 U	6.9 U	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
Styrene	ug/m3	8.5 U	2.1 U	4.3 U	0.46	0.38 J	0.43 U	0.43 U	0.43 U	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
Tetrachloroethene	ug/m3	14 J	3.5	3.4 U	0.92	2.1	0.68 U	0.68 U	0.71	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
Tetrahydrofuran	ug/m3	41000	11000	4500	7700	1000	0.29 U	0.29 U	2300	26000	1000	2900	2600	3300	460	320	1.9	2900 E	1100	250	4900	13	5300	1800	4200
Toluene	ug/m3	7.5 U	0.9 J	37	0.58	5.6	0.38	0.4	0.43	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
Total VOCs	ug/m3	58876.7	14878.1	7326.4	9427.37	3369.97	18.96	30.87	15175.23	65081.49	2081.4	4839.51	14134.82	8015.12	975.96	563.23	42.38	18666.42	1897.65	527.7	10659.5	83.01	10912.73	2993	10819
trans-1,2-Dichloroethene	ug/m3	7.9 U	2 U	2 U	0.4 U	0.18 J	0.4 U	0.4 U	0.4 U	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
trans-1,3-Dichloropropene	ug/m3	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 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
Trichloroethene	ug/m3	940	290	170	220	400	0.54 U	0.54 U	150	180	80	190	160	200	66	38	0.54 U	160	94	37	210	16	150	44	140
Trichlorofluoromethane	ug/m3	11 J	3.4	5.6 U	4.9	8.5	0.56	1.4	2.9	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
Trichlorotrifluoroethane	ug/m3	15 U	3.8 U	3.8 U	0.77 U	0.57 J	0.77 U	0.61 J	0.77 U	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
Vinyl acetate	ug/m3	7 U	1.8 U	7 U	0.7 U	0.7 U	0.7 U	0.7 U	7 U	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
Vinyl chloride	ug/m3	6.2	1.3 U	1.3 U	2.9	4.7	0.26 U	0.26 U	0.26 U	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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-5									EW-Combined														
Sample ID:		EW-5-020819	EW-5-090619	EW-5-021420	EW-5-09092020	EW-5-030821	EW-5	EW-5	EW-5	EW-5	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
Sample Date:		2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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
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	0.44 U	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	11	40	11	73	11	0.55 U	15	4200	20000	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400
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	0.24 U	1.4 U	21 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
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	1.1 U	16 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
1,1-Dichloroethane	ug/m3	0.4 U	4.9	1.7	0.4 U	1.6	0.4 U	0.32	130	860	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310	200
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	77	430	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	30
1,2,4-Trichlorobenzene	ug/m3	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 U	1.5 U	22 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
1,2,4-Trimethylbenzene	ug/m3	1.4	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 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
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	1.5 U	23 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
1,2-Dichlorobenzene	ug/m3	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 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
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.81 U	12 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
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.92 U	14 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
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	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
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 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
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.44 U	6.6 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
1,3-Dichlorobenzene	ug/m3	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 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
1,4-Dichlorobenzene	ug/m3	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 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
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	110	7300	160	12 U	130	3.5 J	1.2 J	5300	350 U	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9	12
2-Hexanone	ug/m3	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.82 U	12 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-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 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
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.82 U	12 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
Acetone	ug/m3	47	1700	66	15	640	16	4	1100	290 U	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
Benzene	ug/m3	3.6	2.5	1.6	0.32 U	3	0.46	0.41	2	9.6 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
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	2.1 U	16 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
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	1.3 U	20 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
Bromoform	ug/m3	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U	2.1 U	31 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
Bromomethane	ug/m3	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.14 U	0.78 U	12 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
Carbon disulfide	ug/m3	66 J	210	44	3.1 U	3.1 U	3.1 U	0.1 J	270	27 J	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U	4.3	3.2 U	0.17	3.8	0.77
Carbon tetrachloride	ug/m3	0.63 U	6	0.63 U	0.47 J	0.63 U	0.43 J	0.44	1.3 U	19 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
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.92 U	14 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
Chloroethane	ug/m3	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	3.2	7.9 U	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8
Chloroform	ug/m3	15	0.49 U	0.49 U	0.93	0.3 J	0.17 J	0.17 U	4.7	15 U	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	6
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.4	0.14 U	0.83 U	12 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
cis-1,2-Dichloroethene	ug/m3	1.8	2.1	0.52	0.73	0.52	0.4 U	0.14 U	8.1	20	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	180
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.91 U	14 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
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.69 U	10 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
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	1.7 U	26 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
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	1.8	0.49 U	0.49 U	2.5	2	0.99 U	15 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
Ethanol	ug/m3	36	18	30	71	47	94	8.1	27	230 U	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10
Ethyl acetate	ug/m3	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U	1.3 U	7.2 U	110 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
Ethylbenzene	ug/m3	1.2	0.43 U	0.43 U	0.16 J	16	0.17 J	0.15 U	0.87 U	13 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
Hexachlorobutadiene	ug/m3	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	2.1 U	32 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
Hexane	ug/m3	14 U	14 U	14 U	14 U	14 U	14 U	4.9 U	28 U	420 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
Isopropyl alcohol	ug/m3	9.8 U	8.7 J	9.8 U	9.8 U	9.8 U	2.7 J	3.4 U	9.1 J	290 U	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
m,p-Xylene	ug/m3	2.6	0.87 U	0.87 U	0.51 J	67	0.59 J	0.19 J	1.7 U	26 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
Methyl methacrylate	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U	0.82 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	2.6 J	3.5 U	0.5 J	3.5 U	1.8 J	0.9 J	1.2 U	6.9 U	100 U	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
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.72 U	11 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
Naphthalene	ug/m3	--	--	--	--	3.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.097 J	0.82 U	12 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
o-Xylene	ug/m3	1.3	0.43 U	0.43 U	0.2 J	18	0.24 J	0.082 J	0.87 U	13 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
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	14 U	210 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
Styrene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.14 J	0.15 U	0.85 U	13 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
Tetrachloroethene	ug/m3	9.6	1.3	0.68 U	6.8	0.38 J	0.56 J	2.3	29	200	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45	450
Tetrahydrofuran	ug/m3	240	4900	880	2.9 U	820	2.9 U	6.4	4200	360	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43	34
Toluene	ug/m3	2.1	1.9	0.45	0.74	1.9	1.4	0.28	0.74 J	11 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
Total VOCs	ug/m3	574.9	14319.8	1227.07	223.54	1803.9	127.15	55.109	16743.24	34097	283891.8	126854.2	115825.4	57237	5977.6	30592.84	20828.8	17379.7	17207	16098	2792.51	5170.4	389.87	2688.13	3763.28
trans-1,2-Dichloroethene	ug/m3	1.2 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.79 U	12 U	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1	3
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.91 U	14 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
Trichloroethene	ug/m3	18	130	30	54	40	0.54 U	12	1100	11000	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460	1200
Trichlorofluoromethane	ug/m3	3.9	3.1	1.8 J	2.2 U	2 J	1.3 J	1.7	280	1200	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230	210
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.69 J	0.49 J	6.1 U	92 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
Vinyl acetate	ug/m3	7 U	7 U	7 U	7 U	7 U	7 U	2.5 U	14 U	210 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
Vinyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.089 U	2.4	7.7 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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-052810	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
Sample Date:		5/28/2010	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
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	1700	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
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	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
1,1,2-Trichloroethane	ug/m3	5.4 U	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
1,1-Dichloroethane	ug/m3	270	290	330	36	170	200	70	78	130	200	0.4	59	68	150	62	53	68	130	55	49	100	190	69	25
1,1-Dichloroethene	ug/m3	40	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
1,2,4-Trichlorobenzene	ug/m3	7.4 U	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
1,2,4-Trimethylbenzene	ug/m3	5 U	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
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	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
1,2-Dichlorobenzene	ug/m3	6 U	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
1,2-Dichloroethane	ug/m3	4 U	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
1,2-Dichloropropane	ug/m3	4.6 U	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
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	0.7 U	0.7 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--
1,3,5-Trimethylbenzene	ug/m3	5 U	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
1,3-Butadiene	ug/m3	2.2 U	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
1,3-Dichlorobenzene	ug/m3	6 U	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
1,4-Dichlorobenzene	ug/m3	6 U	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
1,4-Dioxane	ug/m3	--	--	--	--	--	0.72 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--
2-Butanone	ug/m3	22	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
2-Hexanone	ug/m3	4 U	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-Ethyltoluene	ug/m3	5 U	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-Methyl-2-pentanone	ug/m3	4 U	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
Acetone	ug/m3	24	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
Benzene	ug/m3	5.5	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
Benzyl chloride	ug/m3	5.2 U	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
Bromodichloromethane	ug/m3	6.6 U	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
Bromoform	ug/m3	11 U	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
Bromomethane	ug/m3	3.8 U	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
Carbon disulfide	ug/m3	3.2 U	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
Carbon tetrachloride	ug/m3	6.2 U	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
Chlorobenzene	ug/m3	7.2	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
Chloroethane	ug/m3	7.2	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
Chloroform	ug/m3	7.9	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
Chloromethane	ug/m3	2 U	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
cis-1,2-Dichloroethene	ug/m3	260	260	360	28	120	160	38	47	75	150	0.4	30	24	93	12	25	30	57	25	21	52	41	20	12
cis-1,3-Dichloropropene	ug/m3	4.4 U	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
Cyclohexane	ug/m3	3.4 U	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
Dibromochloromethane	ug/m3	8.6 U	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
Dichlorodifluoromethane	ug/m3	5 U	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
Ethanol	ug/m3	19 U	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
Ethyl acetate	ug/m3	3.6 U	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
Ethylbenzene	ug/m3	4.4 U	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
Hexachlorobutadiene	ug/m3	11 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	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
Hexane	ug/m3	3.6 U	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
Isopropyl alcohol	ug/m3	2.4 U	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
m,p-Xylene	ug/m3	8.6 U	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
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	7 U	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
Methyl-t-butyl ether	ug/m3	3.6 U	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
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--
n-Heptane	ug/m3	4 U	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
o-Xylene	ug/m3	4.4 U	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
Propylene (Propene)	ug/m3	18 U	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
Styrene	ug/m3	4.2 U	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
Tetrachloroethene	ug/m3	1300	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
Tetrahydrofuran	ug/m3	54	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
Toluene	ug/m3	3.8 U	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
Total VOCs	ug/m3	6002.4	5531.02	9924.84	867.12	5829.85	5796.47	801.32	6127.8	8317.21	6951.77	38.71	2088.04	2884.59	4151.01	1984.49	1868.32	1776.8	2942.5	1315.97	1579.98	4281.71	15053.17	2957.32	700.3
trans-1,2-Dichloroethene	ug/m3	4.6	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
trans-1,3-Dichloropropene	ug/m3	4.4 U	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
Trichloroethene	ug/m3	2000	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
Trichlorofluoromethane	ug/m3	300	440	410	71	200	610	200	150	260	100	0.56	130	140	410	200	98	160	360	200	80	170	340	230	93
Trichlorotrifluoroethane	ug/m3	7.6 U	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
Vinyl acetate	ug/m3	3.6 U	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
Vinyl chloride	ug/m3	2.6 U	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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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-080516	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	EW-Combined	EW-Combined	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
Sample Date:		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	3/29/2022	9/15/2022	3/17/2023	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
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	0.44 U	1.2 U	2.5 U	--	--	--	--	--	--	--	1.2 U	2.5 U	1.2 U
1,1,1-Trichloroethane	ug/m3	4000	260	530	150	690	62	670	200	470	97	300	0.19 U	42	2.1	1	15	45	1.9	13000	0.56	450	380	740	0.55 U
1,1,2,2-Tetrachloroethane	ug/m3	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	0.24 U	0.69 U	1.4 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
1,1,2-Trichloroethane	ug/m3	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	0.19 U	0.55 U	1.1 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
1,1-Dichloroethane	ug/m3	360	25	67	19	73	13	45	19	29	9	34	0.14 U	3.2	0.81 U	0.2 U	1 U	5.4	11000	490	370	610	21	80	0.4 U
1,1-Dichloroethene	ug/m3	160	11	24	10	27	10	24	10	27	7.4	16	0.14 U	2.1	0.79 U	0.2 U	1 U	0.4 U	6400	96	78	87	3.8	30	0.4 U
1,2,4-Trichlorobenzene	ug/m3	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	0.52 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
1,2,4-Trimethylbenzene	ug/m3	4.9 U	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	0.17 U	0.49 U	0.98 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
1,2-Dibromoethane (EDB)	ug/m3	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	0.27 U	0.77 U	1.5 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
1,2-Dichlorobenzene	ug/m3	6 U	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	0.21 U	0.6 U	1.2 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
1,2-Dichloroethane	ug/m3	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	0.14 U	0.4 U	0.81 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
1,2-Dichloropropane	ug/m3	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	0.16 U	0.46 U	0.92 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
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	--	--	--	--	--	--	--	--	--	--	--	--	--	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	4.9 U	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	0.17 U	0.49 U	0.98 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
1,3-Butadiene	ug/m3	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	0.077 U	0.22 U	0.44 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
1,3-Dichlorobenzene	ug/m3	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	0.21 U	0.6 U	1.2 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
1,4-Dichlorobenzene	ug/m3	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	0.21 U	0.6 U	1.2 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
1,4-Dioxane	ug/m3	36 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	14 J	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	4.1 U	19	24 U	10	6.3	9.4	5.5	330	1.9	2	2.5 J	0.52 J	12 U
2-Hexanone	ug/m3	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	0.29 U	0.41 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
4-Ethyltoluene	ug/m3	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	0.17 U	0.49 U	0.98 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
4-Methyl-2-pentanone	ug/m3	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	0.14 U	0.41 U	0.82 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
Acetone	ug/m3	39 J	3.7 J	8.7 J	19 U	19 U	9.4 J	4.9 J	12	12	9.5 U	9.5 U	7.8	17	13 J	1200	11	19	12	430	3.6	5.7	21	19 U	3.5 J
Benzene	ug/m3	3.2 U	0.33	0.51 J	0.4 J	0.49 J	1.4	0.4	0.33	0.32 U	0.4	0.95	0.5	0.32 U	0.64 U	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
Benzyl chloride	ug/m3	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	0.18 U	1 U	1 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
Bromodichloromethane	ug/m3	6.7 U	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	0.23 U	0.67 U	1.3 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
Bromoform	ug/m3	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	0.36 U	1 U	2.1 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
Bromomethane	ug/m3	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	0.14 U	0.39 U	0.78 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
Carbon disulfide	ug/m3	31 U	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	1.1 U	0.69 J	6.2 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
Carbon tetrachloride	ug/m3	6.3 U	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	0.44	0.63 U	1.3 U	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
Chlorobenzene	ug/m3	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	0.16 U	0.46 U	0.92 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
Chloroethane	ug/m3	8.6	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	0.092 U	0.26 U	0.53 U	0.13 U	5100	1800	480	64	19	10	0.26 U	0.53 U	0.53 U
Chloroform	ug/m3	20	1.5	4.1	1.9	5.1	1.8	3.2	1	4.7	0.6	5	0.17 U	0.49 U	0.98 U	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	6.8	1.2	6.5	1.2
Chloromethane	ug/m3	4.1 U	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	1.3	2	1.2	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
cis-1,2-Dichloroethene	ug/m3	160	7.3	41	9.5	42	5.8	27	6.4	11	4.6	22	0.14 U	0.47	0.79 U	0.27	1 U	3.9	5200	820	230	570	8.7	54	1.2
cis-1,3-Dichloropropene	ug/m3	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	0.16 U	0.45 U	0.91 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
Cyclohexane	ug/m3	3.4 U	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	0.12 U	0.34 U	0.69 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
Dibromochloromethane	ug/m3	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	0.3 U	0.85 U	1.7 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
Dichlorodifluoromethane	ug/m3	5	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	2	2.4	1.9	0.76	4.1	3	2.4	50 U	1.7	1.9	2	2.2	0.49 U
Ethanol	ug/m3	140	5.9 J	16	12 J	14 J	25	25	14	18	10	53	16	18	9.5 J	740	36	25	9.8	110	0.38 U	2.8	4.7 J	15 U	11
Ethyl acetate	ug/m3	3.6 U	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	4.9	3.6 U	7.2 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
Ethylbenzene	ug/m3	4.3 U	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	0.15 U	0.43 U	0.87 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
Hexachlorobutadiene	ug/m3	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	0.37 U	1.1 U	2.1 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
Hexane	ug/m3	140 U	14 U	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	4.9 U	3.2 J	28 U	3	0.9 U	46	0.36 U	36 U	0.18 U	0.23	0.74 J	28 U	14 U
Isopropyl alcohol	ug/m3	98 U	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	1 J	9.8 U	20 U	450	2.9	3.1	47	290	0.25 U	1.4	9.8 U	20 U	9.8 U
m,p-Xylene	ug/m3	8.7 U	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	0.3 U	0.87 U	1.7 U	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
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	0.14 U	0.41 U	0.82 U	--	--	--	--	--	--	--	0.41 U	0.82 U	0.41 U
Methylene chloride	ug/m3	35 U	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	1.5	3.5 U	6.9 U	20	76	17	3	810	0.7 U	0.72	0.55 J	6.9 U	1.2 J
Methyl-t-butyl ether	ug/m3	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	0.13 U	0.36 U	0.72 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
Naphthalene	ug/m3	5.2 U	--	--	--	--	--	--	--	--	0.52 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	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	0.16	0.41 U	0.82 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
o-Xylene	ug/m3	4.3 U	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	0.15 U	0.43 U	0.87 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
Propylene (Propene)	ug/m3	8.2 J	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	2.4 U	6.9 U	14 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
Styrene	ug/m3	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.38 J	0.15 U	0.43 U	0.85 U	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
Tetrachloroethene	ug/m3	870	66	260	66	220	20	110	20	64	17	150	0.24 U	1.1	1.4 U	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9	19	3	10
Tetrahydrofuran	ug/m3	9.4	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	1 U	17	5.9 U	6.8	22	40	18	210	4.1	6.5	0.35	0.59 U	0.29 U
Toluene	ug/m3	6.6	0.36 J	1.3	0.72 J	1.1	2	1.8	0.57	0.7	0.28 J	1.1	0.48	0.41	0.75 U	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	0.28 J	0.39 J	2.1
Total VOCs	ug/m3	10139.6	648.57	1840.21	485.7	2140.4	240.1	1750.15	436	2064.5	225.28	1215.84	37.68	152.37	30.33	2532.56	5412.3	2074.65	29942.47	30007	898.35	1984.36	749.38	2796.9	43.43
trans-1,2-Dichloroethene	ug/m3	4	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	0.14 U	0.4 U	0.79 U	0.2 U	1 U	0.4 U	28	40 U	7.7	15	0.18 J	1.2	0.93 J
trans-1,3-Dichloropropene	ug/m3	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	0.16 U	0.45 U	0.91 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
Trichloroethene	ug/m3	3200	180	670	160	800	29	520	100	1100	43	440	0.19 U	15	0.73 J	2	11	16	2.7	54 U	1	1	250	1600	8.2
Trichlorofluoromethane	ug/m3	1200	88	220	67	280	62	230	51	310	36	190	1.1	8.8	1.9 J	0.71	1.4 U	23	6700	84	180	210	42	280	2.2 J
Trichlorotrifluoroethane	ug/m3	31 U	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	0.5 J	3.1 U	6.1 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
Vinyl acetate	ug/m3	70 U	0.56 J	14 U	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	2.5 U	7 U	14 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
Vinyl chloride	ug/m3	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	0.089 U	0.26 U	0.51 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

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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023
Checked By: MM, 4/12/2023

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 Treatment - Large Retail Space							
Location:		PostCarbon							
Sample ID:		Post Carbon-090619	Post Carbon-021420	Post Carbon-09092020	Post Carbon-030821	Post Carbon	Post Carbon	Post Carbon	Post Carbon
Sample Date:		9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023
Analyte	**Units**								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	2.5 U
1,1,1-Trichloroethane	ug/m3	2.3	2.4	840	730	0.55 U	0.19 U	0.55 U	1.1 U
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	1.4 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	1.1 U
1,1-Dichloroethane	ug/m3	2.8	17	62	16	52	0.62	18	6.5
1,1-Dichloroethene	ug/m3	9.8	9.1	41	9.8	37	0.42	8.1	3
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 U	0.74 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	8.1	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	1.5 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.81 U
1,2-Dichloropropane	ug/m3	110	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	2.9	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.22 U	0.44 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	27	1.9 J	12 U	12 U	12 U	4.1 U	12 U	24 U
2-Hexanone	ug/m3	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.41 U	0.82 U
4-Ethyltoluene	ug/m3	9.5	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U
4-Methyl-2-pentanone	ug/m3	28	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U
Acetone	ug/m3	71	10	9.5 U	6.8 J	9.5 U	6.8	9.5 U	19 U
Benzene	ug/m3	1.6	0.32 U	0.32 U	0.12 J	0.32 U	0.2	0.32 U	0.64 U
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	1 U	1 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	0.67 U	1.3 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	2.1 U
Bromomethane	ug/m3	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.78 U
Carbon disulfide	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U	3.1 U	6.2 U
Carbon tetrachloride	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.22 U	0.63 U	1.3 U
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	0.26 U	0.53 U
Chloroform	ug/m3	0.49 U	0.49 U	3.7	3	0.58	0.17 U	0.9	0.98 U
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.83 U
cis-1,2-Dichloroethene	ug/m3	2.3	9.4	40	17	40	0.4	10	3.3
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.69 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	1.7 U
Dichlorodifluoromethane	ug/m3	0.49 U	1.6	0.49 U	0.49 U	0.49 U	0.72	0.49 U	0.99 U
Ethanol	ug/m3	360	6.8 J	6 J	9.7	2.3 J	83	6 J	12 J
Ethyl acetate	ug/m3	180	0.36 U	3.6 U	3.6 U	3.6 U	1.4	3.6 U	7.2 U
Ethylbenzene	ug/m3	33	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.87 U
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	2.1 U
Hexane	ug/m3	14 U	14 U	14 U	1.4 J	14 U	2.1 J	14 U	28 U
Isopropyl alcohol	ug/m3	230	1.5 J	9.8 U	9.8 U	5.7 J	2.2 J	9.8 U	20 U
m,p-Xylene	ug/m3	120	0.87 U	0.87 U	0.87 U	0.87 U	0.3 U	0.87 U	1.7 U
Methyl methacrylate	ug/m3	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U	0.41 U	0.82 U
Methylene chloride	ug/m3	10	0.75 J	3.5 U	14	3.5 U	14	3.5 U	6.9 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.72 U
Naphthalene	ug/m3	--	--	--	0.52 U	--	--	--	--
n-Heptane	ug/m3	15	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U
o-Xylene	ug/m3	36	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.87 U
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	14 U
Styrene	ug/m3	10	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.85 U
Tetrachloroethene	ug/m3	7.7	7	3.1	1.9	1.2	0.24 U	0.68 U	1.4 U
Tetrahydrofuran	ug/m3	0.29 U	0.29 U	2.9 U	2.9 U	2.9 U	1 U	2.9 U	5.9 U
Toluene	ug/m3	340	0.38 U	0.19 J	0.23 J	0.45	0.27	0.52	0.75 U
Total VOCs	ug/m3	1672.78	172.4	2425.99	1460.36	420.72	115.73	116.52	54.8
trans-1,2-Dichloroethene	ug/m3	0.78	0.4 U	0.4 U	0.41	0.86	0.14 U	0.4 U	0.79 U
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U
Trichloroethene	ug/m3	11	5.9	1200	600	0.63	0.19 U	0.54 U	1.1 U
Trichlorofluoromethane	ug/m3	44	110	230	50	280	3.6	73	30
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U	3.1 U	6.1 U
Vinyl acetate	ug/m3	7 U	7 U	7 U	7 U	7 U	2.5 U	7 U	14 U
Vinyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.089 U	0.26 U	0.51 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
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