Immediate ResponseAction Status Report

(Dec 8, 2016 – May 31, 2017)

Fremont Loft
158 – 160 Fremont St.
Worcester, MA

RTN: 2-17651

Prepared for:
Fremont Loft Condominium Trust
c/o Northborough Property Management
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June 19, 2017

IMMEDIATE RESPONSE ACTION STATUS REPORT

(December 8, 2016 -May 31, 2017)

Fremont Loft Condominiums

158-160 Fremont Street

Worcester, Massachusetts

RTN 2-17651

SIGNATURE PAGE

This report has been prepared by the following qualified personnel employed by Arcadia Technology, Inc.

Report Prepared By:

Ronald K. Burns, PE, LSP, LEED-AP
Principal Engineer

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1.0 INTRODUCTION

Arcadia Technology, Inc. (Arcadia) has prepared this Immediate Response Action (IRA) Status Report for IRA activities being conducted under Release Tracking Number (RTN) 2-17651. This report has been prepared on behalf of Fremont Loft Condominium Trust in accordance with the Massachusetts Contingency Plan (MCP) (310 CMR 40) for a release (the Release) discovered at the property located at 158 – 160 Fremont Street in Worcester, Massachusetts (the Subject Property), as shown in Figure 1 and Figure 2a. This status report covers the period between December 8, 2016 and May 31, 2017. The Immediate Response Actions being conducted under RTN 2-17651 are the subject of this report.

The vapor intrusion impacts which are the subject of IRA activities for RTN 2-17651 are related to a prior Release to the subsurface first reported by The Abrams Group in December 2004. At that time concentrations of compounds above applicable MCP Reportable Concentrations (RCs) were first identified in the groundwater at the Subject Property during assessment conducted for financing purposes in conjunction with the purchase of the property. The Release was reported as a 120-day reporting condition to the Massachusetts Department of Environmental Protection (MassDEP) on April 29, 2005 and RTN 2-15725 was assigned to the Release. A second RTN, RTN 2-17651 was assigned in September 17, 2009 for a potential condition of Imminent release migration (SRM) which exists on site due to presence of chlorinated volatile organic compounds (CVOCs) detected in indoor air that were also present in the soil gas. A third RTN, RTN 2-18748, was assigned on November 15, 2012 for a condition that could pose an imminent hazard (IH) in Unit 102 of 158 – 160 Fremont Street in Worcester, Massachusetts; RTN 2-18748 later was expanded in January and February 2013 to include conditions that could pose an IH in units 221 and 242. These IH conditions and the associated condition of SRM are related to oils and/or hazardous materials (OHMs) associated with RTN 2-15725. RTN 2-17651 and RTN 2-18748 have both been linked to RTN 2-15725.

The objective of this IRA Status Report is to document activities which have occurred since the submittal of the Dec. 8, 2016 IRA Status Report. This IRA Status Report fulfills the criteria outlined in the MCP at 310 CMR 40.0425 and meets the required submittal frequency for IRA Status Reports of every six months. The Immediate Response Action (IRA) Transmittal Form (BWSC 105) required with this report was electronically submitted to MassDEP. A copy of this form is included as Appendix A in the hard copy of this report; electronic copies were directly uploaded to the eDEP website. The Potentially Responsible Party (PRP), Fremont Loft

Condominium Trust, has authorized Mr. Ronald K. Burns LSP #9492 to act as agent for RTN 2-17651 in accordance with the 310 CMR 40.0009(2); a copy of the authorization letter is also included in Appendix A.

1.1 REASON FOR IMMEDIATE RESPONSE ACTIONS

In accordance with 310 CMR 40.0412(1) and 310 CMR 40.0412(2) IRAs shall be conducted at sites or vessels where a release or threat of release of oil and/or hazardous material has occurred which requires notification to the Department under the Two-Hour notification provision of 310 CMR 40.0311 or 40.0312, or the 72 Hour notification provisions of 310 CMR 40.0313 or 40.0314.

On September 17, 2009 MassDEP was notified that a condition of SRM existed on site due to presence of CVOCs detected in indoor air that were also present in the soil gas. MassDEP assigned a RTN 2-17651 and requested an IRA Plan be performed. In January 2010, 160 Fremont Street Associates, LLC submitted a Release Notification Form (RNF), Immediate Response Action (IRA) Plan, and Notice of RTN Being Linked to a Tier Classified Site.

On November 15, 2012 MassDEP was notified that a condition which could pose an IH existed on site due to concentrations of trichloroethylene (TCE) being detected at concentrations above 2 ug/m3 in Unit 102 during the August 2012 indoor air sampling event. (At the time 2 ug/m3 was the concentration which MassDEP identified as posing an IH condition for women of childbearing age in a residential exposure scenario; MassDEP increased this concentration to 6 ug/m3 on March 27, 2014.) MassDEP assigned a RTN 2-18748 and verbally approved the installation of an Austin Air Filter in Unit 102. Conditions that could pose an IH were subsequently identified in units 221 and 242 based on air sampling conducted in these units in January and February 2013 and the occupants of these units including women of childbearing age. MassDEP was notified of these additional possible IH conditions on January 23, 2013 and February 20, 2013 respectively and incorporated the possible IH conditions in 221 and 242 into RTN 2-18748. All on-going response actions (principally operation and monitoring of SSD systems for Units 102, and 221/242) related to the mitigation of the IH condition identified by RTN 2-18748 are being conducted as part of the Immediate Response Actions for RTN 2-17651.

2.0 MCP REPORTING

The following reports have been submitted for RTN 2-15725 by EnviroScience Consultants, Inc. on behalf of The Abrams Group:

- *Phase I Completion Statement and a Tier Classification Submittal* – April 26, 2006

The following reports have been submitted for RTN 2-17651 by Loitherstein Environmental Engineering, Inc. on behalf of 160 Fremont Street Associates, LLC:

- *RNF, IRA Plan, and Notice of RTN Being Linked to a Tier Classified Site* – January 11, 2010

The following reports have been submitted for RTN 2-15725 by CHA (formerly Coler & Colantonio, Inc.) on behalf of Fremont Loft Condominium Trust:

- *Release Abatement Measure (RAM) Plan for Drainage Repair/Renovation Project* – April 23, 2012
- *RAM Completion Statement for Drainage Repair/Renovation Project* – August 23, 2012
- *Revised Tier Classification Submittal* – June 29, 2015

The following reports have been submitted for RTN 2-17651 by CHA (formerly Coler & Colantonio, Inc.) on behalf of Fremont Loft Condominium Trust:

- *Modified IRA Plan* - June 21, 2012
- *Imminent Hazard (IH) Evaluation* – October 26, 2012
- *IRA Status Report* – December 20, 2012

The following reports have been submitted for RTN 2-18748 by CHA (formerly Coler & Colantonio, Inc.) on behalf of Fremont Loft Condominium Trust:

- *RNF & IRA Plan* – January 14, 2013
- *IRA Status Report* – March 18, 2013

The following reports have been submitted for RTN 2-17651 and 2-18748 by CHA on behalf of Fremont Loft Condominium Trust:

- *IRA Status Report* – June 21, 2013
- *Modified IRA Plan, IRA Status Report, and IRAC Statement* – November 20, 2014
- *IRA Status Report* – June 30, 2014
- *IRA Status Report* – December 14, 2014
- *IRA Status Report* – June 19, 2015
- *IRA Status Report* – December 14, 2015
- *IRA Status Report* – June 17, 2016

- *IRA Status Report* – Dec. 8, 2016

Activities previously conducted to address the Release were discussed in these reports.

3.0 IRA ACTIVITIES CONDUCTED FROM DECEMBER 8, 2016 TO MAY 31, 2017

From December 8, 2016 to May 31, 2017 IRA Activities to address the condition of SRM and the associated condition that could pose an IH in units 102, 221, and 242 have included significant additional assessment activities and monitoring and operation of the SSD system. These activities included SSD system operation and repair and repair indoor air sampling. The condominium units that where air samples were collected are shown the historical Air and Soil Gas Sampling locations on figures 2b and 2c. Laboratory analytical data collected during the period covered by this report has been summarized in the attached tables. Complete laboratory analytical reports for samples collected during the period covered by this report are attached to this report as Appendix B. Complete Summary Tables and Laboratory Reports for prior sampling were submitted within previous MassDEP report submittals.

3.1 METHODOLOGIES

The methodologies utilized by Arcadia to conduct these activities are described within this section of the report.

3.1.1 SSD System Operation

The comprehensive SSD system consists of a total of 14 SSD systems installed throughout the first and second floor of the building. Each system consists of one fan and one or two extraction points, the locations of which are shown on Figure 2b and Figure2c, connected with two to four-inch diameter, schedule 40 PVC piping. Three different fan types were utilized: RadonAway Model HS 5000, RadonAway Model GP 501, and the FanTech FR225. Each system was vented above the roof line of the one story portion of the building. The following table lists the system ID, the units in which the extraction points are located, and the fan type utilized for each system.

System ID	Unit No.	Radon Away HS5000	Radon Away GP501	FanTech FR225
System A	102 + 1st fl stairwell	1		
System B	221 + 224	1		
System 1	105 + 107	1		
System 2	219 + 223	1		
System 3	226 + 241	1		
System 4	239	1		
System 5	237 + 238	1		
System 6	228 + 229			1
System 7	231 + 236		1	
System 8	233 + 235		1	
System 9	215 + 217	1		
System 10	202 + 203	1		
System 11	214	1		
System 12	108 + 109	1		

A Dwyer magnehelic gauge is installed prior to the fan within each system to monitor the system's performance. System A has been operating continuously since February 12, 2013 and System B has been operating continuously since March 20, 2013. Systems 1 through 12 were started on December 5, 2013. All 14 systems were operating continuously throughout the period covered by this report with the exception of System 8 which is discussed in the following section.

3.1.2 SSD System Repair

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On April 6, 2017, during an on-site inspection of the SSD system an Arcadia Representative observed that System 8's pressure gauge indicated that the system had no vacuum pressure gauge. The cause of for the reading could be for a variety of reasons: gauge failure, lack of power, plug in system, failure of fan motor. All the other gauges for the other systems were functioning and there was no disconnect for vacuum piping to the gauge for system 8. Arcadia checked the circuit breaker/power panel on April 7, 2017 and the circuit breaker appeared OK. Arcadia then contacted

Alpine Environmental (original installer) to come and inspect and repair the system. On April 17, 2017, an Alpine Environmental technician came to the site and found that the fan motor for System 8 had failed. The technician replaced the entire fan unit (Radon Away GP501). He restarted the system and the fan operated properly. The pressure gauge had a reading of 0.35 inches of water which is the normal range for the system.

3.1.3 Air Sampling

Two Air sampling events were performed during the period covered by this report. The first event was on April 7, 2017. Air samples were collected from units 102, 221 and 242, to obtain annual indoor air data during the winter/early spring months (worst case scenario) to confirm that the SSD system is still mitigating exposures. The outside temperature at the time of sampling event was in the mid 30ºs F versus low 70ºs F inside the condominium units. This differential is consistent with the guidance for worst case sampling scenarios in MassDEP guidance on Vapor Intrusions(WSC-16-435). These units represent the units that have historically been impacted by the vapor intrusion from the Release.

The second event was conducted on May 5th and 12th, 2017. The air samples were collected from units 233 and 235. System 8 covers these units. Therefore, in accordance with MassDEP guidance air samples were collected to confirm that System 8 was functioning properly following the repair.

The air samples were collected via SUMMA canisters over a 24-hour period. To collect the air samples, the canister valves were opened and following the sampling interval, the valves were shut. Vacuum readings were collected immediately after opening the regulator valve and before closing the valve. Indoor air samples were placed at breathing level at approximately three to five feet off the ground. All air samples were submitted for laboratory analysis of air toxics by United States Environmental Protection Agency (EPA) Method TO-15.

3.2 LABORATORY ANALYTICAL DATA AND FIELD DATA REVIEW

During this period Arcadia performed SSD system operation repairs and air sampling. The laboratory analytical data and field data obtained from these activities are described within this section of the report.

3.2.1 SSD System Monitoring Results

Operation and maintenance of the comprehensive SSD system will minimally consist of annual checks of the systems for pressure drops and fan operation until the system is no longer necessary as recommended by MassDEP's October 2014 *Vapor Intrusion Guidance: Public Review Draft*. To comply with the annual check of the system CHA monitored the magnehelic gauges for the SSD systems on April 6, 2017, the gauges of all 14 SSD systems were monitored. The gauge readings of each system were consistent compared to previous monitoring events except for System 8 which was repaired. Gauge readings across the various systems varied from 0.35 to 20 in H_2O; these variations are due to the differences in the fan types, soil types, and number of extraction points for the various individual SSD systems.

3.2.2 Air Sampling Results

The air samples collected during the period of this report were submitted for analysis of VOCs via EPA method TO-15. The laboratory results were evaluated based on the ten VOCs identified as chemicals of potential concern (COPCs) in the December 13, 2012 Action Level Development for Indoor Air prepared by LaGoy Risk Analysis, Inc.: 1,2,4-Trimethylbenzene, 1,3,5-Trimethybenzene, 2- Butanone (MEK), Benzene, Chloroform, cis-1,2-Dichloroethene (cis-DCE), Tetrachloroethene(PCE), trans-1,2-Dichloroethene, TCE, and Trichlorofluoromethane (Freon 11). This sampling was conducted under RTN 2-17651 to obtain indoor air data. Laboratory results were compared to the Residential Threshold Value (TVr) presented in Table I-D of the MassDEP's October 2016 Vapor Intrusion Guidance: (WSC# 16-435). None of the COPCs were detected above TVrs. A comparison of sampling results with TVrs serves as an initial screening method for determining compounds that pose a potential concern under current site conditions and/or could be associated with vapor intrusion. In conclusion, the results indicate that the SSD systems at the Site are mitigating the vapor intrusion from the Release.

3.3 REMEDIATION WASTE

Remediation waste was generated at the Site during this reporting period. Excess soil/drill cutting from the drilling activities conducted by CHA were placed in 3, 55-gallon drums and placed on paved area on the west side of the building. The remediation waste was transported under hazardous waste manifest by a New England Disposal Technologies, a licensed contractor for disposal at a permitted facility. Please see attached hazardous waste manifest and associated documents is attached in Appendix C.

3.4 PERMITS & APPROVALS

No permits or approvals were required for the IRAs conducted within this report.

4.0 EVALUATION OF CRITICAL EXPOSURE PATHWAYS, SUBSTANTIAL RELEASE MIGRATION, AND IMMINENT HAZARD CONDITIONS

As part of on-going IRA activities an evaluation of potential IRA conditions was performed to determine if additional immediate actions are required. The potential IRA conditions evaluated are Conditions of Substantial Release Migration (SRM), Critical Exposure Pathways (CEPs), and Imminent Hazards (IH). These conditions all represent conditions with increased exposure and/or increased risk due to exposure. These conditions were most recently evaluated within the December 14, 2014 IRA Status Report to identify any possible IRA conditions and to address these conditions if they are identified. As part of the ongoing IRA activities at the Site, Arcadia will continue to evaluate these conditions as additional data is collected. Updates to the status of these conditions since the submittal of the December 14, 2014 IRA Status Report are discussed below.

4.1 SUBSTANTIAL RELEASE MIGRATION

There have been no changes to the status of conditions of SRM during the period covered by this report.

4.2 CRITICAL EXPOSURE PATHWAYS

There have been no changes to the status of CEPs during the period covered by this report.

4.3 IMMINENT HAZARD EVALUATION

There have been no changes to the status of IHs during the period covered by this report.

5.0 NEW SITE INFORMATION

No Significant new site information or data other than the activities discussed in previous sections has been obtained during the period covered by this report.

6.0 PUBLIC INVOLVEMENT

Public Involvement activities have been conducted in accordance with 310 CMR 40.1403. In accordance with 310 CMR 40.1403(10) any time environmental samples have been collected at a property on behalf of someone other than the owner, the property owners have been provided with a written notice pursuant to 310 CMR 1403(2)(a) on *Notice of Environmental Sampling* (BWSC 123) which explains that the property owner will be provided the results of the sample analyses. The property owners have also been provided with the results of the sample analyses, any other documentation associated with the samples such as that listed at 310 CMR 20.0017(3), and a statement of public involvement opportunities which are available under 31 CMR 40.1403(9) and 310 CMR 40.1404. In addition, any time sampling involving indoor air or surficial soil samples has been conducted at a residence have been notified in writing at least three days prior to work in accordance with 40.1403(3)(a). The City of Worcester Chief Municipal Officer and Board of Health or Department of Inspectional Services were also notified. Copies of all notifications completed during the period covered by this report have been included in Appendix C of this report. Public Involvement activities will continue to be conducted in accordance with 310 CMR 40.1403.

7.0 CERTIFICATIONS

The LSP Opinion as to whether the Immediate Response Actions are being conducted in conformance with the IRA Plan and any conditions of approval established by MassDEP is provided in the Immediate Response Action (IRA) Transmittal Form (BWSC 105) which is presented herewith in Appendix A.

TABLES

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Unit 101			Unit 102								TVr
Sampled By:	Loitherstein	C&C	CHA	Loitherstein	C&C	C&C	C&C	C&C	CHA	CHA	Arcadia	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	
Lab:		Alpha	Contest	Contest	RI Analytical	Alpha	Alpha	Alpha	Contest	Contest	Alpha	
Location:		On 4' high counter in kitchen	On 4' high kitchen island		On 3' high bookcase in living room	On 3' high bookcase in living room	On 3' high bookcase in living room	On 3' high bookcase in living room	On 4' high kitchen island	On 4' high kitchen table	On 4' high kitchen table	
Date:	2/2/2010	1/9/2013	1/7/2014	10/1/2009	8/16/2012	12/18/2012	2/11/2013	3/12/2013	1/7/2014	2/25/2016	4/7/2017	
Occupants:		Female Age 55	Vacant		Female Age 31	Female Age 32	Female Age 32	Female Age 32	vacant	Male Age 57	Male Age early 30s	
PID Screening (ppmv):		0.42	0.721		0.45	0.42	0.25	0.48	0.438	0.165	NT	
Notices:		IH Owner 1/24/13, IH Occupant 1/24/13, Post Sample Owner 1/24/13, Potential Future IH Owner 3/7/13			IH Owner 11/27/12 IH occupant 1/24/13, Post Sample Owner 9/17/12	Post Sample 1/8/13, IH City 12/12/12 IH Owner 12/12/12	Post Sample Owner 2/27/13	Post Sample Owner 4/5/13	Post sample owner 2/10/14	Post Sample owner and occupant 3/15/16	Post Sample owner and occupant 4/1/17	
Volatile Organic Compunds - TO-15 Analyses (ug/m3)												
1,1,1-Trichloroethane		<1.09	NT		<0.63	<1.09	<1.09	<1.09	NT	NT	ND	3
1,1,2,2-Tetrachloroethane		<1.37	NT		<0.63	<1.37	<1.37	<1.37	NT	NT	ND	0.04
1,1,2-Trichloroethane		<1.09	NT		<0.63	<1.09	<1.09	<1.09	NT	NT	ND	0.15
1,1-Dichloroethane		<0.809	NT		<0.63	<0.809	<0.809	<0.809	NT	NT	ND	0.8
1,1-Dichloroethene		<0.793	NT		<0.63	<0.793	<0.793	<0.793	NT	NT	ND	0.8
1,2,4-Trichlorobenzene		<1.48	NT		<0.63	<1.48	<1.48	<1.48	NT	NT	ND	0.4
1,2,4-Trimethylbenzene	0.79	NT	0.37	<0.25	<0.63	NT	NT	NT	0.46	0.23	ND	NS
1,2-Dibromo-3-chloropropane		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
1,2-Dibromoethane (EDB)		<1.54	NT		<0.63	<1.54	<1.54	<1.54	NT	NT	ND	0.0078
1,2-Dichlorobenzene		<1.2	NT		<0.63	<1.2	<1.2	<1.2	NT	NT	ND	0.72
1,2-Dichloroethane	<0.14	<0.809	NT	<0.2	<0.63	<0.809	<0.809	<0.809	NT	NT	ND	0.09
1,2-Dichloropropane		<0.924	NT		<0.63	<0.924	<0.924	<0.924	NT	NT	ND	0.12
1,3,5-Trimethybenzene	0.24	NT	<0.17	<0.25	<0.63	NT	NT	NT	<0.17	<0.17	ND	NS
1,3-Butadiene		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
1,3-Dichlorobenzene		<1.2	NT		<0.63	<1.2	<1.2	<1.2	NT	NT	ND	0.6
1,4-Dichlorobenzene		<1.2	NT		<0.63	<1.2	<1.2	<1.2	NT	NT	ND	0.5
1,4-Dioxane		<0.721	NT		<0.63	<0.721	<0.721	<0.721	NT	NT	ND	0.47
2,2,4-Trimethylpentane		NT	NT		NT	NT	NT	NT	NT	NT	ND	NS
2-Butanone (MEK)	3.4	1.27	<4.1	4.3	<6.3	0.705	**16.8**	2.28	<4.1	<4.1	ND	12
2-Hexanone	0.83	NT	NT	1	<0.63	NT	NT	NT	NT	NT	ND	NS
3-Chloropropene		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
4-Ethyltoluene	0.27	NT	NT	<0.25	<0.63	NT	NT	NT	NT	NT	ND	NS
Acetone	31	18.7	NT	50	33	8.74	**104**	19.9	NT	NT	16.8	91
Acetonitrile		NT	NT		0.74	NT	NT	NT	NT	NT	ND	NS
Acrolein		NT	NT		<2.5	NT	NT	NT	NT	NT	ND	NS
Acrylonitrile		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Benzene	2.1	1.81	2.2	0.75	<0.63	<0.639	0.732	1.11	1.2	1	0.649	2.3
Benzyl chloride		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Bromodichloromethane		<1.34	NT		<0.63	<1.34	<1.34	<1.34	NT	NT	ND	0.13
Bromoform		<2.07	NT		<0.63	<2.07	<2.07	<2.07	NT	NT	ND	2.1
Bromomethane		<0.777	NT		<0.63	<0.777	<0.777	<0.777	NT	NT	ND	0.6
n-Butyl Acetate		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Carbon disulfide	0.17	NT	NT	0.77	<6.3	NT	NT	NT	NT	NT	ND	NS
Carbon tetrachloride	<0.22	<1.26	NT	0.42	<0.63	<1.26	<1.26	<1.26	NT	NT	0.428	0.54
Chlorobenzene		<0.921	NT		<0.63	<0.921	<0.921	<0.921	NT	NT	ND	2.3
Chloroethane	0.18	NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Chloroform	1.1	<0.977	0.24	0.55	**1.9**	<0.977	<0.977	<0.977	0.65	0.52	0.269	1.9
Chloromethane	1.7	NT	NT	1.3	<0.63	NT	NT	NT	NT	NT	ND	NS
cis-1,2-Dichloroethene	<0.14	<0.793	<0.14		<0.63	<0.793	<0.793	<0.793	<0.14	<0.14	ND	0.8
cis-1,3-Dichloropropene		<0.908	NT		<0.63	<0.908	<0.908	<0.908	NT	NT	ND	0.58
Cumene		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Cyclohexane	0.48	NT	NT	<0.17	<1.3	NT	NT	NT	NT	NT	ND	NS
Dibromochloromethane		<1.7	NT		<0.63	<1.7	<1.7	<1.7	NT	NT	ND	0.097
Dichlorodifluoromethane (Freon 12)	1.5	NT	NT	2.2	2.8	NT	NT	NT	NT	NT	ND	NS
Ethanol	280	NT	NT	370	90	NT	NT	NT	NT	NT	ND	NS
Ethyl Acetate	1.8	NT	NT	3.6	4.7	NT	NT	NT	NT	NT	ND	NS
Ethylbenzene	0.82	<0.869	NT	0.47	<0.63	<0.869	<0.869	<0.869	NT	NT	0.239	7.4
Freon-113	0.48	NT	NT	0.48	<0.63	NT	NT	NT	NT	NT	ND	NS
Freon-114		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Hexachlorobutadiene		<2.13	NT		<0.63	<2.13	<2.13	<2.13	NT	NT	ND	0.11
Isopropanol	160	NT	NT	8.7	9.0	NT	NT	NT	NT	NT	ND	NS
d-Limonene		NT	NT		7.7	NT	NT	NT	NT	NT	ND	NS
Methylene chloride	2.7	**48.6**	NT	1.1	<0.63	<4.86	<4.86	**14.5**	NT	NT	ND	11
Methyl Methacrylate		NT	NT		<1.3	NT	NT	NT	NT	NT	ND	NS
4-Methyl-2-pentanone	0.87	<0.82	NT	0.8	<0.63	<0.82	<0.82	<0.82	NT	NT	ND	2.2
Methyl tert butyl ether		<0.721	NT		<0.63	<0.721	<0.721	<0.721	NT	NT	ND	NS
p/m-Xylene		1.74	NT		<1.3	<1.74	<1.74	1.82	NT	NT	0.656	20
o-Xylene		<0.869	NT		<0.63	<0.869	<0.869	<0.869	NT	NT	0.248	20
Total Xylenes	2.86	<2.609	NT	1.05	<1.93	<2.609	<2.609	<2.689	NT	NT	ND	20
Heptane	0.8	NT	NT	0.62	<0.63	NT	NT	NT	NT	NT	ND	NS
n-Hexane	1.1	NT	NT	1.1	<0.63	NT	NT	NT	NT	NT	ND	NS
Naphthalene		<1.05	NT		<0.63	<1.05	<1.05	<1.05	NT	NT	0.294	0.6
n-Nonane		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
n-Octane		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
alpha-Pinene		NT	NT		8.1	NT	NT	NT	NT	NT	ND	NS
Propylene		NT	NT		4.9	NT	NT	NT	NT	NT	ND	NS
n-Propylbenzene		NT	NT		<0.63	NT	NT	NT	NT	NT	ND	NS
Styrene	0.35	<0.852	NT	0.54	<0.63	<0.852	<0.852	<0.852	NT	NT	0.251	1.4
Tetrachloroethene	0.73	<1.36	<0.24	**2.8**	<0.63	<1.36	<1.36	**4.79**	<0.24	<0.24	0.231	1.4
Tetrahydrofuran	0.32	NT	NT	<0.15	<0.63	NT	NT	NT	NT	NT	ND	NS
Toluene	4.2	3.44	NT	**110**	3.4	1.33	1.33	3.63	NT	NT	3.05	54
trans-1,2-Dichloroethene		<0.793	<0.14		<0.63	<0.793	<0.793	<0.793	<0.14	<0.14	ND	0.8
trans-1,3-Dichloropropene		<0.908	NT		<0.63	<0.908	<0.908	<0.908	NT	NT	ND	NS
Trichloroethene	**0.93**	**2.91**	<0.19	**5.1**	**4.4**	**3.7**	**3.47**	<1.07	<0.19	<0.19	ND	0.4
Trichlorofluoromethane (Freon 11)	1.6	NT	1.5	1.6	1.3	NT	NT	NT	1.4	1.2	ND	NS
Vinyl acetate		NT	NT		<6.3	NT	NT	NT	NT	NT	ND	NS
Vinyl bromide		NT	NT		NT	NT	NT	NT	NT	NT	ND	NS
Vinyl chloride		<0.511	NT		<0.63	<0.511	<0.511	<0.511	NT	NT	ND	0.27

NOTES:

1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, NT= not tested, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc. CHA= CHA Consulting, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Unit 103			Hallway 103	Unit 104			Unit 105		
Sampled By:	Loitherstein	C&C	CHA	C&C	Loitherstein	C&C	CHA	C&C	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	
Lab:		Alpha	Contest	RI Analytical		Alpha	Contest	Alpha	Contest	
Location:		On 4' high counter between kitchen & living room	On 4' high counter between kitchen & living room	On 3' high folding table		On 4' high counter in kitchen	On 4' high kitchen island	On 4' high counter in kitchen	On 4' high counter in kitchen	
Date:	2/2/2010	1/14/2013	1/7/2014	8/16/2012	2/2/2010	1/14/2013	1/7/2014	1/14/2013	1/7/2014	
		Vacant	Vacant			Male 40s	Male 38, Female 32	Male Early 30s	Vacant	TVr
PID Screening (ppmv):		0.21	0.275	0.40		0.24	0.499	0.29	0.378	
	Potential Future IH Owner 3/7/13	Post Sample Owner 2/4/2013				IH Owner 1/10/13, Post Sample Owner 2/4/2013, Potential Future IH Owner 3/7/13		Post Sample Owner 2/4/2013		
Volatile Organic Compunds - TO-15 Analyses (ug/m3)										
1,1,1-Trichloroethane		<1.09	NT	<0.63		<1.09	NT	<1.09	NT	3
1,1,2,2-Tetrachloroethane		<1.37	NT	<0.63		<1.37	NT	<1.37	NT	0.04
1,1,2-Trichloroethane		<1.09	NT	<0.63		<1.09	NT	<1.09	NT	0.15
1,1-Dichloroethane		<0.809	NT	<0.63		<0.809	NT	<0.809	NT	0.8
1,1-Dichloroethene		<0.793	NT	<0.63		<0.793	NT	<0.793	NT	0.8
1,2,4-Trichlorobenzene		<1.48	NT	<0.63		<1.48	NT	<1.48	NT	0.4
1,2,4-Trimethylbenzene	<0.17	NT	0.31	<0.63	0.47	NT	0.4	NT	0.3	NS
1,2-Dibromo-3-chloropropane		NT	NT	<0.63		NT	NT	NT	NT	NS
1,2-Dibromoethane (EDB)		<1.54	NT	<0.63		<1.54	NT	<1.54	NT	0.0078
1,2-Dichlorobenzene		<1.2	NT	<0.63		<1.2	NT	<1.2	NT	0.72
1,2-Dichloroethane	**0.2**	<0.809	NT	<0.63	**0.82**	<0.809	NT	<0.809	NT	0.09
1,2-Dichloropropane		<0.924	NT	<0.63		<0.924	NT	<0.924	NT	0.12
1,3,5-Trimethylbenzene	<0.17	NT	<0.17	<0.63	<0.17	NT	<0.17	NT	<0.17	NS
1,3-Butadiene		NT	NT	<0.63		NT	NT	NT	NT	NS
1,3-Dichlorobenzene		<1.2	NT	<0.63		<1.2	NT	<1.2	NT	0.60
1,4-Dichlorobenzene		<1.2	NT	<0.63		<1.2	NT	<1.2	NT	0.5
1,4-Dioxane		<0.721	NT	<0.63		<0.721	NT	<0.721	NT	0.47
2,2,4-Trimethylpentane		NT	NT	NT		NT	NT	NT	NT	NS
2-Butanone (MEK)	3.7	<0.59	<4.1	<6.3	1.8	0.776	<4.1	1.19	<4.1	12
2-Hexanone	0.26	NT	NT	<0.63	<0.14	NT	NT	NT	NT	NS
3-Chloropropene		NT	NT	<0.63		NT	NT	NT	NT	NS
4-Ethyltoluene	<0.17	NT	NT	<0.63	<0.17	NT	NT	NT	NT	NS
Acetone	34	4.35	NT	22	26	11.1	NT	18.4	NT	91
Acetonitrile		NT	NT	1.5		NT	NT	NT	NT	NS
Acrolein		NT	NT	<2.5		NT	NT	NT	NT	NS
Acrylonitrile		NT	NT	<0.63		NT	NT	NT	NT	NS
Benzene	1.7	<0.639	**3.6**	<0.63	1.7	<0.639	1.5	0.722	0.97	2.3
Benzyl chloride		NT	NT	<0.63		NT	NT	NT	NT	NS
Bromodichloromethane		<1.34	NT	<0.63		<1.34	NT	<1.34	NT	0.13
Bromoform		<2.07	NT	<0.63		<2.07	NT	<2.07	NT	2.1
Bromomethane		<0.777	NT	<0.63		<0.777	NT	<0.777	NT	0.6
n-Butyl Acetate		NT	NT	<0.63		NT	NT	NT	NT	NS
Carbon disulfide	0.18	NT	NT	<6.3	0.31	NT	NT	NT	NT	NS
Carbon tetrachloride	0.35	<1.26	NT	<0.63	<0.22	<1.26	NT	<1.26	NT	0.54
Chlorobenzene		<0.921	NT	<0.63		<0.921	NT	<0.921	NT	2.3
Chloroethane	0.23	NT	NT	<0.63	<0.09	NT	NT	NT	NT	NS
Chloroform	1	<0.977	<0.17	<0.63	1	<0.977	0.51	1.11	0.33	1.9
Chloromethane	1.7	NT	NT	<0.63	1.7	NT	NT	NT	NT	NS
cis-1,2-Dichloroethene	<0.14	<0.793	<0.14	<0.63	0.29	<0.793	<0.14	<0.793	<0.14	0.8
cis-1,3-Dichloropropene		<0.908	NT	<0.63		<0.908	NT	<0.908	NT	0.58
Cumene		NT	NT	<0.63		NT	NT	NT	NT	NS
Cyclohexane	0.38	NT	NT	<1.3	0.29	NT	NT	NT	NT	NS
Dibromochloromethane		<1.7	NT	<0.63		<1.7	NT	<1.7	NT	0.097
Dichlorodifluoromethane (Freon 12)	1.5	NT	NT	2.7	1.5	NT	NT	NT	NT	NS
Ethanol	340	NT	NT	57	1,100	NT	NT	NT	NT	NS
Ethyl Acetate	6	NT	NT	4.7	9.9	NT	NT	NT	NT	NS
Ethylbenzene	0.18	<0.869	NT	<0.63	0.83	<0.869	NT	<0.869	NT	7.4
Freon-113	0.5	NT	NT	<0.63	0.51	NT	NT	NT	NT	NS
Freon-114		NT	NT	<0.63		NT	NT	NT	NT	NS
Hexachlorobutadiene		<2.13	NT	<0.63		<2.13	NT	<2.13	NT	0.11
Isopropanol	16	NT	NT	37	13	NT	NT	NT	NT	NS
d-Limonene		NT	NT	1.2		NT	NT	NT	NT	NS
Methylene chloride	2.8	<4.86	NT	<0.63	2.7	**59.1**	NT	<4.86	NT	11
Methyl Methacrylate		NT	NT	<1.3		NT	NT	NT	NT	NS
4-Methyl-2-pentanone	<0.14	<0.82	NT	<0.63	0.22	<0.82	NT	<0.82	NT	2.2
Methyl tert butyl ether		<0.721	NT	<0.63		<0.721	NT	<0.721	NT	NS
p/m-Xylene		<1.74	NT	<1.3		<1.74	NT	<1.74	NT	20
o-Xylene		<0.869	NT	<0.63		<0.869	NT	<0.869	NT	20
Total Xylenes	<0.3	<2.609	NT	<1.93	2.41	<2.609	NT	<2.609	NT	20
Heptane	0.75	NT	NT	<0.63	0.77	NT	NT	NT	NT	NS
n-Hexane	1.2	NT	NT	<0.63	1	NT	NT	NT	NT	NS
Naphthalene		<1.05	NT	<0.63		<1.05	NT	<1.05	NT	0.6
n-Nonane		NT	NT	<0.63		NT	NT	NT	NT	NS
n-Octane		NT	NT	<0.63		NT	NT	NT	NT	NS
alpha-Pinene		NT	NT	<0.63		NT	NT	NT	NT	NS
Propylene		NT	NT	21		NT	NT	NT	NT	NS
n-Propylbenzene		NT	NT	<0.63		NT	NT	NT	NT	NS
Styrene	<0.15	<0.852	NT	<0.63	0.38	<0.852	NT	<0.852	NT	1.4
Tetrachloroethene	**1.4**	<1.36	0.66	<0.63	**3.4**	<1.36	0.27	<1.36	0.37	1.4
Tetrahydrofuran	0.32	NT	NT	<0.63	1.7	NT	NT	NT	NT	NS
Toluene	1.8	<0.754	NT	1.2	3.6	1.66	NT	1.55	NT	54
trans-1,2-Dichloroethene		<0.793	<0.14	<0.63		<0.793	<0.14	<0.793	<0.14	0.8
trans-1,3-Dichloropropene		<0.908	NT	<0.63		<0.908	NT	<0.908	NT	NS
Trichloroethene	**3.5**	**1.93**	<0.19	<0.63	**2.5**	**2.83**	<0.19	**1.95**	0.29	0.4
Trichlorofluoromethane (Freon 11)	1.6	NT	1.5	1.2	1.6	NT	1.5	NT	1.5	NS
Vinyl acetate		NT	NT	<6.3		NT	NT	NT	NT	NS
Vinyl bromide		NT	NT	NT		NT	NT	NT	NT	NS
Vinyl chloride		<0.511	NT	<0.63		<0.511	NT	<0.511	NT	0.27

NOTES:

1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:		Unit 106		UNIT 107	UNIT 108	UNIT 109		UNIT 110	UNIT 201	UNIT 202	UNIT 203		
Sampled By:	Loitherstein	C&C	CHA	C&C	CHA	C&C	C&C	CHA	CHA	CHA	CHA	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	24	
Lab:	Contest	RI Analytical	Contest	Alpha	Alpha	Alpha	RI Analytical	Contest	Contest	Contest	Alpha	Contest	
Location:		On 4' high table between kitchen & living room	On 4' high table between kitchen & living room	Kitchen/Main Living Area - On Top of Fridge	In Living Room- On top of 4' bar	Kitchen/Main Living Area - Above Cabinets	On 3' high chair under stairs	2' off ground between kitchen and living room	On 4' high kitchen counter	On 3' high window sill	On table in living room 4'	On 4' high kitchen island	
Date:	5/11/2009	8/16/2012	1/7/2014	10/2/2009	9/9/2013	10/2/2009	8/16/2012	1/7/2014	1/7/2014	1/7/2014	9/9/2013	1/7/2014	
		2 Males late 40s	Two males Ages 47 and 50		One Male Age 25 One Female Age 23		Male & Female Mid 30s	Two females mid 30s		One Male 30s	One Female Age 51	One Female Age 55	TVr
PID Screening (ppmv):		0.63	0.226	5.9	0.491	6.3	0.41	0.28	0.207	0.204	0.859	0.37	
		Post Sample Owner 9/17/2012,			Post Sample Owner 10/9/13		Post Sample Owner 9/17/12				Post Sample Owner 10/9/13		
Volatile Organic Compunds - TO-15 Analyses (ug/m3)													
1,1,1-Trichloroethane		<0.62	NT	<1.09	<1.09	<1.09	<0.63	NT	NT	NT	<1.09	NT	3
1,1,2,2-Tetrachloroethane		<0.62	NT	<1.37	<1.37	<1.37	<0.63	NT	NT	NT	<1.37	NT	0.04
1,1,2-Trichloroethane		<0.62	NT	<1.09	<1.09	<1.09	<0.63	NT	NT	NT	<1.09	NT	0.15
1,1-Dichloroethane		<0.62	NT	<0.809	<0.809	<0.809	<0.63	NT	NT	NT	<0.809	NT	0.8
1,1-Dichloroethene		<0.62	NT	<0.792	<0.793	<0.792	<0.63	NT	NT	NT	<0.793	NT	0.8
1,2,4-Trichlorobenzene		<0.62	NT	<1.48	<1.48	<1.48	<0.63	NT	NT	NT	<1.48	NT	0.4
1,2,4-Trimethylbenzene	1.8	<0.62	0.31	<0.982	NT	<0.982	<0.63	0.22	0.44	0.97	NT	0.86	NS
1,2-Dibromo-3-chloropropane		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
1,2-Dibromoethane (EDB)		<0.62	NT	<1.54	<1.54	<1.54	<0.63	NT	NT	NT	<1.54	NT	0.0078
1,2-Dichlorobenzene		<0.62	NT	<1.2	<1.2	<1.2	<0.63	NT	NT	NT	<1.2	NT	0.72
1,2-Dichloroethane	**5.2**	**7.7**	NT	**1.08**	<0.809	<0.809	<0.63	NT	NT	NT	<0.809	NT	0.09
1,2-Dichloropropane		<0.62	NT	<0.924	<0.924	<0.924	<0.63	NT	NT	NT	<0.924	NT	0.12
1,3,5-Trimethybenzene	0.54	<0.62	<0.17	<0.982	NT	<0.982	<0.63	<0.17	<0.17	0.31	NT	0.28	NS
1,3-Butadiene		<0.62	NT	<0.442	NT	<0.442	<0.63	NT	NT	NT	NT	NT	NS
1,3-Dichlorobenzene		<0.62	NT	<1.2	<1.2	<1.2	<0.63	NT	NT	NT	<1.2	NT	0.6
1,4-Dichlorobenzene		<0.62	NT	<1.2	<1.2	<1.2	<0.63	NT	NT	NT	<1.2	NT	0.5
1,4-Dioxane		<0.62	NT	<0.72	<0.721	<0.72	<0.63	NT	NT	NT	<0.721	NT	0.47
2,2,4-Trimethylpentane		NT	NT	<0.934	NT	<0.934	NT	NT	NT	NT	NT	NT	NS
2-Butanone (MEK)	5.5	<6.2	<4.1	1.39	<0.59	1.34	<6.3	<4.1	<4.1	<4.1	2.88	<4.1	12
2-Hexanone	1.2	<0.62	NT	<0.819	NT	<0.819	<0.63	NT	NT	NT	NT	NT	NS
3-Chloropropene		<0.62	NT	<0.626	NT	<0.626	<0.63	NT	NT	NT	NT	NT	NS
4-Ethyltoluene	0.51	<0.62	NT	<0.982	NT	<0.982	<0.63	NT	NT	NT	NT	NT	NS
Acetone	46	46	NT	26.2	10.1	28.9	84	NT	NT	NT	48	NT	91
Acetonitrile		0.74	NT	NT	NT	NT	0.70	NT	NT	NT	NT	NT	NS
Acrolein		2.8	NT	NT	NT	NT	4.6	NT	NT	NT	NT	NT	NS
Acrylonitrile		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
Benzene	2.2	1.1	1.2	0.932	<0.639	1.6	<0.63	0.86	0.8	1.7	<0.639	0.93	2.3
Benzyl chloride		<0.62	NT	<1.03	NT	<1.03	<0.63	NT	NT	NT	NT	NT	NS
Bromodichloromethane		<0.62	NT	<1.34	<1.34	<1.34	<0.63	NT	NT	NT	<1.34	NT	0.13
Bromoform		<0.62	NT	<2.06	<2.07	<2.06	<0.63	NT	NT	NT	<2.07	NT	2.1
Bromomethane		<0.62	NT	<0.776	<0.777	<0.776	<0.63	NT	NT	NT	<0.777	NT	0.6
n-Butyl Acetate		1.4	NT	NT	NT	NT	2.1	NT	NT	NT	NT	NT	NS
Carbon disulfide	0.95	<6.2	NT	<0.622	NT	<0.622	<6.3	NT	NT	NT	NT	NT	NS
Carbon tetrachloride	0.45	<0.62	NT	<1.26	<1.26	<1.26	<0.63	NT	NT	NT	<1.26	NT	0.54
Chlorobenzene		<0.62	NT	<0.92	<0.921	<0.92	<0.63	NT	NT	NT	<0.921	NT	2.3
Chloroethane		<0.62	NT	<0.527	NT	<0.527	<0.63	NT	NT	NT	NT	NT	NS
Chloroform	1	0.79	0.37	<0.976	<0.977	**2.54**	1.3	0.44	0.41	1.2	0.982	0.59	1.9
Chloromethane	1.2	<0.62	NT	1.71	NT	1.26	<0.63	NT	NT	NT	NT	NT	NS
cis-1,2-Dichloroethene		<0.62	<0.14	<0.792	<0.793	<0.792	<0.63	<0.14	<0.14	<0.14	<0.793	<0.14	0.8
cis-1,3-Dichloropropene		<0.62	NT	<0.907	<0.908	<0.907	<0.63	NT	NT	NT	<0.908	NT	0.58
Cumene		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
Cyclohexane	1.4	<1.2	NT	<0.688	NT	<0.688	<1.3	NT	NT	NT	NT	NT	NS
Dibromochloromethane		<0.62	NT	<1.7	<1.7	<1.7	<0.63	NT	NT	NT	<1.7	NT	0.097
Dichlorodifluoromethane (Freon 12)	2	1.9	NT	2.77	NT	2.72	2.7	NT	NT	NT	NT	NT	NS
Ethanol	320	430	NT	642	NT	417	150	NT	NT	NT	NT	NT	NS
Ethyl Acetate	<0.36	2.3	NT	2.1	NT	4.03	7.5	NT	NT	NT	NT	NT	NS
Ethylbenzene	1.4	<0.62	NT	<0.868	<0.869	<0.868	<0.63	NT	NT	NT	<0.869	NT	7.4
Freon-113	0.58	<0.62	NT	<1.53	NT	<1.53	<0.63	NT	NT	NT	NT	NT	NS
Freon-114		<0.62	NT	<1.4	NT	<1.4	<0.63	NT	NT	NT	NT	NT	NS
Hexachlorobutadiene		<0.62	NT	<2.13	<2.13	<2.13	<0.63	NT	NT	NT	<2.13	NT	0.11
Isopropanol	16	420	NT	48.1	NT	23.7	10	NT	NT	NT	NT	NT	NS
d-Limonene		5.3	NT	NT	NT	NT	4.9	NT	NT	NT	NT	NT	NS
Methylene chloride	**12**	<0.62	NT	<1.74	<4.86	<1.74	<0.63	NT	NT	NT	<4.86	NT	11
Methyl Methacrylate		<1.2	NT	NT	NT	NT	<1.3	NT	NT	NT	NT	NT	NS
4-Methyl-2-pentanone	1.6	<0.62	NT	<0.819	<0.82	<0.819	<0.63	NT	NT	NT	<0.82	NT	2.2
Methyl tert butyl ether		<0.62	NT	<0.72	<0.721	<0.72	<0.63	NT	NT	NT	<0.721	NT	NS
p/m-Xylene		<1.2	NT	<1.74	<1.74	<1.74	<1.3	NT	NT	NT	<1.74	NT	20
o-Xylene		<0.62	NT	<0.868	<0.869	<0.868	<0.63	NT	NT	NT	<0.869	NT	20
Total Xylenes	6.2	<1.82	NT	<2.608	<2.609	<2.608	<1.93	NT	NT	NT	<2.609	NT	20
Heptane	1.9	<0.62	NT	<0.819	NT	<0.819	<0.63	NT	NT	NT	NT	NT	NS
n-Hexane	8.2	<0.62	NT	<0.704	NT	<0.704	<0.63	NT	NT	NT	NT	NT	NS
Naphthalene		<0.62	NT	NT	<1.05	NT	**4.4**	NT	NT	NT	**1.92**	NT	0.6
n-Nonane		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
n-Octane		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
alpha-Pinene		7.8	NT	NT	NT	NT	19	NT	NT	NT	NT	NT	NS
Propylene		60	NT	0.956	NT	0.872	3.9	NT	NT	NT	NT	NT	NS
n-Propylbenzene		<0.62	NT	NT	NT	NT	<0.63	NT	NT	NT	NT	NT	NS
Styrene	0.36	<0.62	NT	<0.851	<0.852	<0.851	1.2	NT	NT	NT	2.60	NT	1.4
Tetrachloroethene	0.37	<0.62	0.27	<1.36	<1.36	<1.36	<0.63	<0.24	<0.24	<0.24	<1.36	<0.24	1.4
Tetrahydrofuran	<0.15	<0.62	NT	<0.589	NT	0.984	<0.63	NT	NT	NT	NT	NT	NS
Toluene	8.2	2.6	NT	2.7	0.754	2.93	6.4	NT	NT	NT	3.73	NT	54
trans-1,2-Dichloroethene		<0.62	<0.14	<0.792	<0.793	<0.792	<0.63	<0.14	<0.14	<0.14	<0.793	<0.14	0.8
trans-1,3-Dichloropropene		<0.62	NT	<0.907	<0.908	<0.907	<0.63	NT	NT	NT	<0.908	NT	NS
Trichloroethene	0.31	<0.62	<0.19	<1.07	<1.07	<1.07	<0.63	<0.19	<0.19	<0.19	<1.07	<0.19	0.4
Trichlorofluoromethane (Freon 11)	1.4	1.0	1.4	1.63	NT	1.61	1.3	1.4	1.3	1.4	NT	1.4	NS
Vinyl acetate		14	NT	<0.704	NT	<0.704	<6.3	NT	NT	NT	NT	NT	NS
Vinyl bromide		NT	NT	<0.874	NT	<0.874	NT	NT	NT	NT	NT	NT	NS
Vinyl chloride		<0.62	NT	<0.511	<0.511	<0.511	<0.63	NT	NT	NT	<0.511	NT	0.27

NOTES:

1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	UNIT 204	UNIT 207	UNIT 208	UNIT 209	UNIT 213	UNIT 214		UNIT 215	UNIT 216			Unit 217		
Sampled By:	CHA	C&C	C&C	C&C	CHA	CHA	CHA	CHA	C&C	C&C	CHA	Loitherstein	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	24	24	
Lab:	Contest	Alpha	Alpha	Alpha	Contest	Alpha	Contest	Contest	Alpha	RI Analytical	Contest		Contest	
Location:	On 3' high window sill	on 3' high Kitchen Island	3' High in Lifing room on Table/printer	4' High on Kitchen Counter connected to living room	On 4' high kitchen island	On 4' table in between kitchen and living room	On 4' high kitchen table	On 3' high kitchen island	Kitchen/Main Living Area - Kitchen Island	On 4' high table between kitchen & living room	On 4' table in living room		On 3' high kitchen table	
Date:	1/7/2014	2/11/2013	2/11/2013	2/11/2013	1/7/2014	9/9/2013	1/7/2014	1/7/2014	10/2/2009	8/16/2012	1/7/2014	2/2/2010	1/7/2014	
Occupants:	One Male Age 20	Two Females Ages 50 and 24	One Female Age 60		One male Age 26 and one female Age 26	One female age 37	One female age 38	Two males age 25		Two Males Ages 42 & 26			two males in early 30s and female in early 30s	TVr
PID Screening (ppmv):	0.198	0.25	0.23	0.28	0.188	0.681	0.28	0.227	5.4	0.60	0.18		0.19	
		Post Sample Owner 2/27/13	Post Sample Owner 2/27/13	Post Sample Owner 2/27/13		Post Sample Owner 10/9/13				Post Sample Owner/occupant 9/17/12				
Volatile Organic Compunds - TO-15 Analyses (ug/m3)														
1,1,1-Trichloroethane	NT	<1.09	<1.09	<1.09	NT	<1.09	NT	NT	<1.09	<0.62	NT		NT	3
1,1,2,2-Tetrachloroethane	NT	<1.37	<1.37	<1.37	NT	<1.37	NT	NT	<1.37	<0.62	NT		NT	0.04
1,1,2-Trichloroethane	NT	<1.09	<1.09	<1.09	NT	<1.09	NT	NT	<1.09	<0.62	NT		NT	0.15
1,1-Dichloroethane	NT	<0.809	<0.809	<0.809	NT	<0.809	NT	NT	<0.809	<0.62	NT		NT	0.8
1,1-Dichloroethene	NT	<0.793	<0.793	<0.793	NT	<0.793	NT	NT	<0.792	<0.62	NT		NT	0.8
1,2,4-Trichlorobenzene	NT	<1.48	<1.48	<1.48	NT	<1.48	NT	NT	<1.48	<0.62	NT		NT	0.4
1,2,4-Trimethylbenzene	0.59	NT	NT	NT	0.47	NT	<0.17	0.54	<0.982	<0.62	0.52	0.51	0.89	NS
1,2-Dibromo-3-chloropropane	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.62	NT		NT	NS
1,2-Dibromoethane (EDB)	NT	<1.54	<1.54	<1.54	NT	<1.54	NT	NT	<1.54	<0.62	NT		NT	0.0078
1,2-Dichlorobenzene	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	NT	<1.2	<0.62	NT		NT	0.72
1,2-Dichloroethane	NT	<0.809	<0.809	<0.809	NT	<0.809	NT	NT	<0.809	<0.62	NT	**0.28**	NT	0.09
1,2-Dichloropropane	NT	<0.924	<0.924	<0.924	NT	<0.924	NT	NT	<0.924	<0.62	NT		NT	0.12
1,3,5-Trimethylbenzene	0.19	NT	NT	NT	<0.17	NT	<0.17	<0.17	<0.982	<0.62	0.18	<0.17	0.3	NS
1,3-Butadiene	NT	NT	NT	NT	NT	NT	NT	NT	<0.442	<0.62	NT		NT	NS
1,3-Dichlorobenzene	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	NT	<1.2	<0.62	NT		NT	0.6
1,4-Dichlorobenzene	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	NT	<1.2	<0.62	NT		NT	0.5
1,4-Dioxane	NT	<0.721	<0.721	<0.721	NT	<0.721	NT	NT	<0.72	<0.62	NT		NT	0.47
2,2,4-Trimethylpentane	NT	NT	NT	NT	NT	NT	NT	NT	<0.934	NT	NT		NT	NS
2-Butanone (MEK)	<4.1	3.63	**12**	3.51	<4.1	3.13	<4.1	<4.1	3.5	<6.2	<4.1	3.6	<4.1	12
2-Hexanone	NT	NT	NT	NT	NT	NT	NT	NT	<0.819	<0.62	NT	<0.14	NT	NS
3-Chloropropene	NT	NT	NT	NT	NT	NT	NT	NT	<0.626	<0.62	NT		NT	NS
4-Ethyltoluene	NT	NT	NT	NT	NT	NT	NT	NT	<0.982	<0.62	NT	0.18	NT	NS
Acetone	NT	26.8	49.2	27.6	NT	**120**	NT	NT	14.6	90	NT	79	NT	91
Acetonitrile	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.8	NT		NT	NS
Acrolein	NT	NT	NT	NT	NT	NT	NT	NT	NT	5.0	NT		NT	NS
Acrylonitrile	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.62	NT		NT	NS
Benzene	0.81	1.65	**2.58**	1.27	0.76	<0.639	0.58	0.89	0.954	1.7	1.1	1.8	0.93	2.3
Benzyl chloride	NT	NT	NT	NT	NT	NT	NT	NT	<1.03	<0.62	NT		NT	NS
Bromodichloromethane	NT	<1.34	<1.34	<1.34	NT	<1.34	NT	NT	<1.34	<0.62	NT		NT	0.13
Bromoform	NT	<2.07	<2.07	<2.07	NT	<2.07	NT	NT	<2.06	<0.62	NT		NT	2.1
Bromomethane	NT	<0.777	<0.777	<0.777	NT	<0.777	NT	NT	<0.776	<0.62	NT		NT	0.6
n-Butyl Acetate	NT	NT	NT	NT	NT	NT	NT	NT	NT	2.0	NT		NT	NS
Carbon disulfide	NT	NT	NT	NT	NT	NT	NT	NT	<0.622	<6.2	NT	0.12	NT	NS
Carbon tetrachloride	NT	<1.26	<1.26	<1.26	NT	<1.26	NT	NT	<1.26	**0.76**	NT	0.53	NT	0.54
Chlorobenzene	NT	<0.921	<0.921	<0.921	NT	<0.921	NT	NT	<0.92	<0.62	NT		NT	2.3
Chloroethane	NT	NT	NT	NT	NT	NT	NT	NT	<0.527	<0.62	NT	<0.09	NT	NS
Chloroform	1.4	<0.977	<0.977	<0.977	**2.2**	**4.80**	1.0	1.1	**4.17**	**4.6**	1.5	**3.5**	1.2	1.9
Chloromethane	NT	NT	NT	NT	NT	NT	NT	NT	1.82	<0.62	NT	2.2	NT	NS
cis-1,2-Dichloroethene	<0.14	<0.793	<0.793	<0.793	<0.14	<0.793	<0.14	<0.14	<0.792	<0.62	<0.14	<0.14	<0.14	0.8
cis-1,3-Dichloropropene	NT	<0.908	<0.908	<0.908	NT	<0.908	NT	NT	<0.907	<0.62	NT		NT	0.58
Cumene	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.62	NT		NT	NS
Cyclohexane	NT	NT	NT	NT	NT	NT	NT	NT	<0.688	<1.2	NT	0.5	NT	NS
Dibromochloromethane	NT	<1.7	<1.7	<1.7	NT	<1.7	NT	NT	<1.7	<0.62	NT		NT	0.097
Dichlorodifluoromethane (Freon 12)	NT	NT	NT	NT	NT	NT	NT	NT	2.61	2.6	NT	1.7	NT	NS
Ethanol	NT	NT	NT	NT	NT	NT	NT	NT	763	790	NT	1,600	NT	NS
Ethyl Acetate	NT	NT	NT	NT	NT	NT	NT	NT	3.32	12	NT	5.1	NT	NS
Ethylbenzene	NT	<0.869	0.969	<0.869	NT	0.895	NT	NT	<0.868	<0.62	NT	2.8	NT	7.4
Freon-113	NT	NT	NT	NT	NT	NT	NT	NT	<1.53	<0.62	NT	0.5	NT	NS
Freon-114	NT	NT	NT	NT	NT	NT	NT	NT	<1.4	<0.62	NT		NT	NS
Hexachlorobutadiene	NT	<2.13	<2.13	<2.13	NT	<2.13	NT	NT	<2.13	<0.62	NT		NT	0.11
Isopropanol	NT	NT	NT	NT	NT	NT	NT	NT	111	23	NT	300	NT	NS
d-Limonene	NT	NT	NT	NT	NT	NT	NT	NT	NT	6.6	NT		NT	NS
Methylene chloride	NT	<4.86	<4.86	<4.86	NT	<4.86	NT	NT	<1.74	1.6	NT	2.5	NT	11
Methyl Methacrylate	NT	NT	NT	NT	NT	NT	NT	NT	NT	<1.2	NT		NT	NS
4-Methyl-2-pentanone	NT	<0.82	<0.82	<0.82	NT	<0.82	NT	NT	<0.819	0.74	NT	0.28	NT	2.2
Methyl tert butyl ether	NT	<0.721	<0.721	<0.721	NT	<0.721	NT	NT	<0.72	<0.62	NT		NT	NS
p/m-Xylene	NT	1.86	3.01	<1.74	NT	<1.74	NT	NT	<1.74	1.3	NT		NT	20
o-Xylene	NT	<0.869	1.06	<0.869	NT	<0.869	NT	NT	<0.868	1.3	NT		NT	20
Total Xylenes	NT	<2.729	4.07	<2.609	NT	<2.609	NT	NT	<2.608	2.6	NT	2.73	NT	20
Heptane	NT	NT	NT	NT	NT	NT	NT	NT	<0.819	0.83	NT	1.6	NT	NS
n-Hexane	NT	NT	NT	NT	NT	NT	NT	NT	0.768	0.67	NT	1.5	NT	NS
Naphthalene	NT	<1.05	<1.05	<1.05	NT	**5.30**	NT	NT	NT	**12**	NT		NT	0.6
n-Nonane	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.73	NT		NT	NS
n-Octane	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.62	NT		NT	NS
alpha-Pinene	NT	NT	NT	NT	NT	NT	NT	NT	NT	10	NT		NT	NS
Propylene	NT	NT	NT	NT	NT	NT	NT	NT	0.7	8.7	NT		NT	NS
n-Propylbenzene	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.62	NT		NT	NS
Styrene	NT	<0.852	<0.852	<0.852	NT	0.915	NT	NT	1.08	1.3	NT	**2**	NT	1.4
Tetrachloroethene	<0.24	<1.36	<1.36	<1.36	<0.24	<1.36	<0.24	<0.24	**1.9**	**4.1**	0.32	0.65	<0.24	1.4
Tetrahydrofuran	NT	NT	NT	NT	NT	NT	NT	NT	2.3	<0.62	NT	0.87	NT	NS
Toluene	NT	3.77	5.05	2.58	NT	3.53	NT	NT	4.96	6.6	NT	5.2	NT	54
trans-1,2-Dichloroethene	<0.14	<0.793	<0.793	<0.793	<0.14	<0.793	<0.14	<0.14	<0.792	<0.62	<0.14		<0.14	0.8
trans-1,3-Dichloropropene	NT	<0.908	<0.908	<0.908	NT	<0.908	NT	NT	<0.907	<0.62	NT		NT	NS
Trichloroethene	<0.19	<1.07	<1.07	<1.07	<0.19	<1.07	<0.19	<0.19	**2.93**	<0.62	<0.19	0.24	<0.19	0.4
Trichlorofluoromethane (Freon 11)	1.4	NT	NT	NT	1.5	NT	1.4	1.5	1.65	1.8	1.5	1.6	1.5	NS
Vinyl acetate	NT	NT	NT	NT	NT	NT	NT	NT	<0.704	7.0	NT		NT	NS
Vinyl bromide	NT	NT	NT	NT	NT	NT	NT	NT	<0.874	NT	NT		NT	NS
Vinyl chloride	NT	<0.511	<0.511	<0.511	NT	<0.511	NT	NT	<0.511	<0.62	NT		NT	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Unit 218	Unit 219				Unit 220		Unit 221					
Sampled By:	CHA	Loitherstein	Loitherstein	C&C	CHA	C&C	CHA	C&C	C&C	CHA	CHA	Arcadia	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	24	
Lab:	Contest	Contest		RI Analytical	Contest	RI Analytical	Contest	Alpha	Alpha	Contest	Contest	Contest	
Location:	On 3' high kitchen table			On 2' high chair in living room	On 4' high kitchen island	On 3' high table in living room	On 3' high living room table	On 3' high hutch in living room	On 3' high hutch in living room	On 2' high table under TV	On 4' high kitchen table	On 4' high kitchen table	
Date:	1/7/2014	10/1/2009	2/2/2010	8/16/2012	1/8/2014	8/16/2012	1/7/2014	1/14/2013	4/2/2013	1/8/2014	2/25/2016	4/7/2017	
Occupants:	two females ages 45 and 50			Male and Female Ages 39	One female age 40	One Female, Late 40s	One Female, Late 40s	Male and Female Early 30s	Male and Female Early 30s	One female age 31 one male age 32	One male and one female late 50s	one female mid 70s	TVr
PID Screening (ppmv):	0.249			0.79	0.257	0.57	0.255	0.47	0.473	0.34	0.107	NT	
				Post Sample Owner/ occupant 9/17/12		Post Sample Owner/ occupant 9/17/12		IH Owner/ occupant: 1/25/13, Post Sample 1/25/13, IH City 1/24/13	Post Sample Owner/ occupant 4/15/13		Post sample owner and occupant 3/15/16	Post sample owner and occupant 4/1/17	
Volatile Organic Compunds - TO-15 Analyses (ug/m3)													
1,1,1-Trichloroethane	NT			<0.63	NT	<0.65	NT	<1.09	<1.09	NT	NT	ND	3
1,1,2,2-Tetrachloroethane	NT			<0.63	NT	<0.65	NT	<1.37	<1.37	NT	NT	ND	0.04
1,1,2-Trichloroethane	NT			<0.63	NT	<0.65	NT	<1.09	<1.09	NT	NT	ND	0.15
1,1-Dichloroethane	NT			<0.63	NT	<0.65	NT	<0.809	<0.809	NT	NT	ND	0.8
1,1-Dichloroethene	NT			<0.63	NT	<0.65	NT	<0.793	<0.793	NT	NT	ND	0.8
1,2,4-Trichlorobenzene	NT			<0.63	NT	<0.65	NT	<1.48	<1.48	NT	NT	ND	0.4
1,2,4-Trimethylbenzene	0.98	0.44	0.51	0.84	0.18	<0.65	<0.17	NT	NT	<0.17	<0.17	ND	NS
1,2-Dibromo-3-chloropropane	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
1,2-Dibromoethane (EDB)	NT			<0.63	NT	<0.65	NT	<1.54	<1.54	NT	NT	ND	0.0078
1,2-Dichlorobenzene	NT			<0.63	NT	<0.65	NT	<1.2	<1.2	NT	NT	ND	0.72
1,2-Dichloroethane	NT	<0.2	<0.14	<0.63	NT	<0.65	NT	<0.809	<0.809	NT	NT	**0.097**	0.09
1,2-Dichloropropane	NT			<0.63	NT	<0.65	NT	<0.924	<0.924	NT	NT	ND	0.12
1,3,5-Trimethylbenzene	0.31	<0.25	<0.17	<0.63	<0.17	<0.65	<0.17	NT	NT	<0.17	<0.17	ND	NS
1,3-Butadiene	NT			1.20	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
1,3-Dichlorobenzene	NT			<0.63	NT	<0.65	NT	<1.2	<1.2	NT	NT	ND	0.6
1,4-Dichlorobenzene	NT			<0.63	NT	<0.65	NT	<1.2	<1.2	NT	NT	ND	0.5
1,4-Dioxane	NT			<0.63	NT	<0.65	NT	<0.721	<0.721	NT	NT	ND	0.47
2,2,4-Trimethylpentane	NT			NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
2-Butanone (MEK)	5.3	3.4	4	**15**	<4.1	**12**	<4.1	1.31	4.34	<4.1	<4.1	ND	12
2-Hexanone	NT	0.51	0.45	<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
3-Chloropropene	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
4-Ethyltoluene	NT	<0.25	<0.17	<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Acetone	NT	37	78	**180**	NT	**150**	NT	57.2	38.5	NT	NT	15	91
Acetonitrile	NT			3.8	NT	1.9	NT	NT	NT	NT	NT	ND	NS
Acrolein	NT			6.1	NT	5.5	NT	NT	NT	NT	NT	ND	NS
Acrylonitrile	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Benzene	**5.3**	1.7	2.1	1.7	1.5	0.92	1.1	0.786	<0.639	1.1	0.9	0.575	2.3
Benzyl chloride	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Bromodichloromethane	NT			<0.63	NT	<0.65	NT	<1.34	<1.34	NT	NT	ND	0.13
Bromoform	NT			<0.63	NT	<0.65	NT	<2.07	<2.07	NT	NT	ND	2.1
Bromomethane	NT			<0.63	NT	<0.65	NT	<0.777	<0.777	NT	NT	ND	0.6
n-Butyl Acetate	NT			3.0	NT	3.2	NT	NT	NT	NT	NT	ND	NS
Carbon disulfide	NT	<0.16	0.18	<6.3	NT	<6.5	NT	NT	NT	NT	NT	ND	NS
Carbon tetrachloride	NT	0.4	0.27	**0.70**	NT	<0.65	NT	<1.26	<1.26	NT	NT	0.484	0.54
Chlorobenzene	NT			<0.63	NT	<0.65	NT	<0.921	<0.921	NT	NT	ND	2.3
Chloroethane	NT		<0.09	<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Chloroform	1.6	0.84	0.92	**3.0**	0.49	**2.4**	0.9	<0.977	1.18	**3.2**	1.3	0.386	1.9
Chloromethane	NT	2.6	3	<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
cis-1,2-Dichloroethene	<0.14		<0.14	<0.63	<0.14	<0.65	<0.14	<0.793	<0.793	<0.14	<0.14	ND	0.8
cis-1,3-Dichloropropene	NT			<0.63	NT	<0.65	NT	<0.908	<0.908	NT	NT	ND	0.58
Cumene	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Cyclohexane	NT	<0.17	0.59	<1.3	NT	<1.3	NT	NT	NT	NT	NT	ND	NS
Dibromochloromethane	NT			<0.63	NT	<0.65	NT	<1.7	<1.7	NT	NT	ND	0.097
Dichlorodifluoromethane (Freon 12)	NT	2	1.7	2.5	NT	2.7	NT	NT	NT	NT	NT	ND	NS
Ethanol	NT	3,800	3,000	410	NT	290	NT	NT	NT	NT	NT	ND	NS
Ethyl Acetate	NT	8.6	3.9	7.8	NT	18	NT	NT	NT	NT	NT	ND	NS
Ethylbenzene	NT	1.1	0.52	0.91	NT	0.70	NT	<0.869	<0.869	NT	NT	0.187	7.4
Freon-113	NT	0.44	0.47	<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Freon-114	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Hexachlorobutadiene	NT			<0.63	NT	<0.65	NT	<2.13	<2.13	NT	NT	ND	0.11
Isopropanol	NT	3.9	39	900	NT	130	NT	NT	NT	NT	NT	ND	NS
d-Limonene	NT			19	NT	19	NT	NT	NT	NT	NT	ND	NS
Methylene chloride	NT	1.5	3.7	4.6	NT	1.3	NT	**37.9**	<4.86	NT	NT	2.04	11
Methyl Methacrylate	NT			<1.3	NT	<1.3	NT	NT	NT	NT	NT	ND	NS
4-Methyl-2-pentanone	NT	1.3	<0.14	1.1	NT	0.67	NT	<0.82	<0.82	NT	NT	ND	2.2
Methyl tert butyl ether	NT			<0.63	NT	<0.65	NT	<0.721	<0.721	NT	NT	ND	NS
p/m-Xylene	NT			2.6	NT	1.9	NT	<1.74	<1.74	NT	NT	0.486	20
o-Xylene	NT			0.85	NT	<0.65	NT	<0.869	<0.869	NT	NT	0.182	20
Total Xylenes	NT	5.6	2.87	<3.45	NT	<2.55	NT	<2.609	<2.609	NT	NT	ND	20
Heptane	NT	1.3	3.5	12	NT	3.2	NT	NT	NT	NT	NT	ND	NS
n-Hexane	NT	1.3	5	1.4	NT	0.86	NT	NT	NT	NT	NT	ND	NS
Naphthalene	NT			**2.0**	NT	**1.2**	NT	<1.05	<1.05	NT	NT	ND	0.6
n-Nonane	NT			1.1	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
n-Octane	NT			1.2	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
alpha-Pinene	NT			16	NT	15	NT	NT	NT	NT	NT	ND	NS
Propylene	NT			250	NT	56	NT	NT	NT	NT	NT	ND	NS
n-Propylbenzene	NT			<0.63	NT	<0.65	NT	NT	NT	NT	NT	ND	NS
Styrene	NT	0.75	0.78	**2.4**	NT	**3.8**	NT	<0.852	<0.852	NT	NT	0.251	1.4
Tetrachloroethene	<0.24	0.77	0.44	1.0	0.31	<0.65	0.32	<1.36	<1.36	**17**	<0.24	0.305	1.4
Tetrahydrofuran	NT	<0.15	1.2	4.0	NT	4.2	NT	NT	NT	NT	NT	ND	NS
Toluene	NT	5.5	13	**59**	NT	17	NT	2	0.942	NT	NT	1.5	54
trans-1,2-Dichloroethene	<0.14			<0.63	<0.14	<0.65	<0.14	<0.793	<0.793	<0.14	<0.14	ND	0.8
trans-1,3-Dichloropropene	NT			<0.63	NT	<0.65	NT	<0.908	<0.908	NT	NT	ND	NS
Trichloroethene	<0.19	<0.27	**1.4**	**0.72**	<0.19	**1.3**	<0.19	**6.61**	<1.07	**0.91**	<0.19	ND	0.4
Trichlorofluoromethane (Freon 11)	1.6	1.1	1.5	1.2	0.9	1.3	1.4	NT	NT	1.3	1.3	ND	NS
Vinyl acetate	NT			11	NT	9.3	NT	NT	NT	NT	NT	ND	NS
Vinyl bromide	NT			NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Vinyl chloride	NT			<0.63	NT	<0.65	NT	<0.511	<0.511	NT	NT	ND	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Hallway 221	Unit 222		Unit 223	Unit 224			Unit 225		Unit 226		
Sampled By:	C&C	C&C	CHA	C&C	C&C	C&C	CHA	C&C	CHA	CHA	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	
Lab:	RI Analytical	Alpha	Contest	Alpha	Alpha	Alpha	Contest	Alpha	Contest	Alpha	Contest	
Location:	On 3' high folding table	on table 3' high between kitchen and living room	On 4' high bar stand	In living room 3' high on Table	On 3' high table between kitchen & living room	On 3' high table between kitchen & living room	On 3' high table between kitchen & living room	On Kitchen Island 4' High	On 4' high kitchen island	On 4' table between living room and kitchen	On 4' high kitchen table	
Date:	8/16/2012	2/11/2013	1/7/2014	2/11/2013	1/15/2013*	4/2/2013	1/7/2014	2/11/2013	1/7/2014	9/9/2013	1/8/2014	
Occupants:		One Male Age 46	One male age 46	Male and Female 33 and 41	Male Early 30s	Male Early 30s		One Female Age 60	One female Age 62	One Male age 33 One Female age 24	One male age 33 one female age 25	TVr
PID Screening (ppmv):	0.55	0.31	0.249	0.33	0.20	0.65	0.20	0.34	0.171	0.723	0.252	
		Post Sample Owner 2/27/13, Potential Future IH Owner 3/7/13		Post Sample Owner 2/27/13	Post Sample Owner 2/4/2013, Potential Future IH Owner 3/7/13	Post Sample Owner/ occupant 4/15/13		Post Sample Owner 2/27/13		Post Sample Owner 10/9/13		
Volatile Organic Compunds - TO-15 Analyses (ug/m3)												
1,1,1-Trichloroethane	<0.63	<1.09	NT	<1.09	<1.09	<1.09	NT	<1.09	NT	<1.09	NT	3
1,1,2,2-Tetrachloroethane	<0.63	<1.37	NT	<1.37	<1.37	<1.37	NT	<1.37	NT	<1.37	NT	0.04
1,1,2-Trichloroethane	<0.63	<1.09	NT	<1.09	<1.09	<1.09	NT	<1.09	NT	<1.09	NT	0.15
1,1-Dichloroethane	<0.63	<0.809	NT	<0.809	<0.809	<0.809	NT	<0.809	NT	<0.809	NT	0.8
1,1-Dichloroethene	<0.63	<0.793	NT	<0.793	<0.793	<0.793	NT	<0.793	NT	<0.793	NT	0.8
1,2,4-Trichlorobenzene	<0.63	<1.48	NT	<1.48	<1.48	<1.48	NT	<1.48	NT	<1.48	NT	0.4
1,2,4-Trimethylbenzene	<0.63	NT	0.29	NT	NT	NT	0.24	NT	0.68	NT	<0.17	NS
1,2-Dibromo-3-chloropropane	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
1,2-Dibromoethane (EDB)	<0.63	<1.54	NT	<1.54	<1.54	<1.54	NT	<1.54	NT	<1.54	NT	0.0078
1,2-Dichlorobenzene	<0.63	<1.2	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	<1.2	NT	0.72
1,2-Dichloroethane	<0.63	<0.809	NT	<0.809	<0.809	<0.809	NT	<0.809	NT	<0.809	NT	0.09
1,2-Dichloropropane	<0.63	<0.924	NT	<0.924	<0.924	<0.924	NT	<0.924	NT	<0.924	NT	0.12
1,3,5-Trimethybenzene	<0.63	NT	<0.17	NT	NT	NT	<0.17	NT	0.21	NT	<0.17	NS
1,3-Butadiene	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
1,3-Dichlorobenzene	<0.63	<1.2	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	<1.2	NT	0.6
1,4-Dichlorobenzene	<0.63	<1.2	NT	<1.2	<1.2	<1.2	NT	<1.2	NT	<1.2	NT	0.5
1,4-Dioxane	<0.63	<0.721	NT	<0.721	<0.721	<0.721	NT	<0.721	NT	<0.721	NT	0.47
2,2,4-Trimethylpentane	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
2-Butanone (MEK)	<6.3	1.36	<4.1	1.01	2.21	0.708	<4.1	3.54	<4.1	2.21	<4.1	12
2-Hexanone	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
3-Chloropropene	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
4-Ethyltoluene	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Acetone	**97**	33.3	NT	20.3	15.9	11	NT	41.8	NT	**94.1**	NT	91
Acetonitrile	1.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Acrolein	4.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Acrylonitrile	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Benzene	0.77	1.36	0.85	1.42	1.18	0.847	0.99	**4.44**	**3.3**	<0.639	1.6	2.3
Benzyl chloride	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Bromodichloromethane	<0.63	<1.34	NT	<1.34	<1.34	<1.34	NT	<1.34	NT	<1.34	NT	0.13
Bromoform	<0.63	<2.07	NT	<2.07	<2.07	<2.07	NT	<2.07	NT	<2.07	NT	2.1
Bromomethane	<0.63	<0.777	NT	<0.777	<0.777	<0.777	NT	<0.777	NT	<0.777	NT	0.6
n-Butyl Acetate	1.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Carbon disulfide	<6.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Carbon tetrachloride	<0.63	<1.26	NT	<1.26	<1.26	<1.26	NT	<1.26	NT	<1.26	NT	0.54
Chlorobenzene	<0.63	<0.921	NT	<0.921	<0.921	<0.921	NT	<0.921	NT	<0.921	NT	2.3
Chloroethane	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Chloroform	1.0	1.89	0.94	<0.977	<0.977	<0.977	0.98	<0.977	0.42	1.58	0.31	1.9
Chloromethane	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
cis-1,2-Dichloroethene	<0.63	<0.793	<0.14	<0.793	<0.793	<0.793	<0.14	<0.793	<0.14	<0.793	<0.14	0.8
cis-1,3-Dichloropropene	<0.63	<0.908	NT	<0.908	<0.908	<0.908	NT	<0.908	NT	<0.908	NT	0.58
Cumene	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Cyclohexane	<1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Dibromochloromethane	<0.63	<1.7	NT	<1.7	<1.7	<1.7	NT	<1.7	NT	<1.7	NT	0.097
Dichlorodifluoromethane (Freon 12)	2.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Ethanol	340	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Ethyl Acetate	8.9	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Ethylbenzene	<0.63	<0.869	NT	3.06	<0.869	<0.869	NT	1.63	NT	<0.869	NT	7.4
Freon-113	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Freon-114	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Hexachlorobutadiene	<0.63	<2.13	NT	<2.13	<2.13	<2.13	NT	<2.13	NT	<2.13	NT	0.11
Isopropanol	60	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
d-Limonene	7.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Methylene chloride	<0.63	**34.3**	NT	<4.86	**38.6**	8.65	NT	<4.86	NT	5.38	NT	11
Methyl Methacrylate	<1.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
4-Methyl-2-pentanone	<0.63	<0.82	NT	<0.82	<0.82	<0.82	NT	<0.82	NT	<0.82	NT	2.2
Methyl tert butyl ether	<0.63	<0.721	NT	<0.721	<0.721	<0.721	NT	<0.721	NT	<0.721	NT	NS
p/m-Xylene	<1.3	1.85	NT	8.6	<1.74	<1.74	NT	5.04	NT	<1.74	NT	20
o-Xylene	<0.63	<0.869	NT	3.26	<0.869	<0.869	NT	1.59	NT	<0.869	NT	20
Total Xylenes	<1.93	<2.719	NT	11.86	<2.609	<2.609	NT	6.63	NT	NT	NT	20
Heptane	0.99	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
n-Hexane	0.68	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Naphthalene	**3.5**	<1.05	NT	<1.05	**1.13**	<1.05	NT	<1.05	NT	**2.53**	NT	0.6
n-Nonane	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
n-Octane	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
alpha-Pinene	6.1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Propylene	26	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
n-Propylbenzene	<0.63	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Styrene	1.2	<0.852	NT	<0.852	0.856	<0.852	NT	1.06	NT	1.00	NT	1.4
Tetrachloroethene	<0.63	<1.36	0.25	<1.36	<1.36	<1.36	<0.24	<1.36	<0.24	<1.36	<0.24	1.4
Tetrahydrofuran	0.85	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Toluene	6.0	3.46	NT	12.7	7.69	1.85	NT	9.08	NT	2.61	NT	54
trans-1,2-Dichloroethene	<0.63	<0.793	<0.14	<0.793	<0.793	<0.793	<0.14	<0.793	<0.14	<0.793	<0.14	0.8
trans-1,3-Dichloropropene	<0.63	<0.908	NT	<0.908	<0.908	<0.908	NT	<0.908	NT	<0.908	NT	NS
Trichloroethene	<0.63	**3.85**	<0.19	<1.07	**10.9**	<1.07	<0.19	**2.59**	<0.19	<1.07	<0.19	0.4
Trichlorofluoromethane (Freon 11)	2.0	NT	1.5	NT	NT	NT	1.5	NT	1.4	NT	0.93	NS
Vinyl acetate	<6.3	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Vinyl bromide	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NS
Vinyl chloride	<0.63	<0.511	NT	<0.511	<0.511	<0.511	NT	<0.511	NT	<0.511	NT	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

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4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Unit 227	Unit 228			Hallway 228	Unit 229	Unit 230	Unit 231		Unit 232	Unit 233		Unit 234		
Sampled By:	CHA	Loitherstein	C&C	CHA	C&C	CHA	CHA	CHA	CHA	CHA	CHA	CHA	C&C	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Lab:	Contest	Contest	RI Analytical	Contest	RI Analytical	Contest	Contest	Alpha	Contest	Contest	Contest	Alpha	RI Analytica	Contest	
Location:	On 4' high kitchen island		On 3' high bookcase in living room	On 4' high side table	On 3' high folding table	On 4' high kicthen island	On 2' high coffee table	On 4' table in living room	On 4' high side table near kitchen	On 2' high table in living room	On 4' high kitchen island	On 4' high kitchen island	On 3' high table in living room	On 3' high table in living room	
Date:	1/7/2014	5/11/2009	8/16/2012	1/7/2014	8/16/2012	1/7/2014	1/7/2014	9/9/2013	1/7/2014	1/7/2014	1/7/2014	42867	8/16/2012	1/7/2014	
Occupants:			One Male Age 20	One female age 50 one male aged 32			One Male Age 28	One male age 35				One Male, One Female mid 20s	One Male Age 36	One Male Age 36	TVr
PID Screening (ppmv):	0.15		0.51	0.254	0.49	0.314	0.224	0.629	0.251	0.182	0.189	NT	0.5	0.363	
					Post Sample Owner 9/17/12			Post Sample Owner 10/9/13				Post sample Owner & Occupant 4/28/17	Post Sample Owner 9/17/12		
Volatile Organic Compunds - TO-15 Analyses (ug/m3)															
1,1,1-Trichloroethane	NT		<0.63	NT	<0.64	NT	NT	<1.09	NT	NT	NT	ND	<0.64	NT	3
1,1,2,2-Tetrachloroethane	NT		<0.63	NT	<0.64	NT	NT	<1.37	NT	NT	NT	ND	<0.64	NT	0.04
1,1,2-Trichloroethane	NT		<0.63	NT	<0.64	NT	NT	<1.09	NT	NT	NT	ND	<0.64	NT	0.15
1,1-Dichloroethane	NT		<0.63	NT	<0.64	NT	NT	<0.809	NT	NT	NT	ND	<0.64	NT	0.8
1,1-Dichloroethene	NT		<0.63	NT	<0.64	NT	NT	<0.793	NT	NT	NT	ND	<0.64	NT	0.8
1,2,4-Trichlorobenzene	NT		<0.63	NT	<0.64	NT	NT	<1.48	NT	NT	NT	ND	<0.64	NT	0.4
1,2,4-Trimethylbenzene	0.2	1.1	<0.63	0.26	<0.64	0.41	0.36	NT	0.23	0.25	0.32	ND	0.85	0.56	NS
1,2-Dibromo-3-chloropropane	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
1,2-Dibromoethane (EDB)	NT		<0.63	NT	<0.64	NT	NT	<1.54	NT	NT	NT	ND	<0.64	NT	0.0078
1,2-Dichlorobenzene	NT		<0.63	NT	<0.64	NT	NT	<1.2	NT	NT	NT	ND	<0.64	NT	0.72
1,2-Dichloroethane	NT	<0.2	<0.63	NT	<0.64	NT	NT	<0.809	NT	NT	NT	**0.202**	**1.6**	NT	0.09
1,2-Dichloropropane	NT		<0.63	NT	<0.64	NT	NT	<0.924	NT	NT	NT	ND	<0.64	NT	0.12
1,3,5-Trimethylbenzene	<0.17	0.34	<0.63	<0.17	<0.64	<0.17	<0.17	NT	<0.17	<0.17	<0.17	ND	<0.64	0.18	NS
1,3-Butadiene	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	0.67	NT	NS
1,3-Dichlorobenzene	NT		<0.63	NT	<0.64	NT	NT	<1.2	NT	NT	NT	ND	<0.64	NT	0.6
1,4-Dichlorobenzene	NT		<0.63	NT	<0.64	NT	NT	<1.2	NT	NT	NT	ND	<0.64	NT	0.5
1,4-Dioxane	NT		**1.0**	NT	<0.64	NT	NT	**0.962**	NT	NT	NT	ND	<0.64	NT	0.47
2,2,4-Trimethylpentane	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NS
2-Butanone (MEK)	<4.1	5.3	6.9	<4.1	<6.4	<4.1	<4.1	3.01	<4.1	<4.1	<4.1	2.3	<6.4	<4.1	12
2-Hexanone	NT	1.3	0.73	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
3-Chloropropene	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
4-Ethyltoluene	NT	0.34	<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Acetone	NT	37	74	NT	**130**	NT	NT	48.7	NT	NT	NT	37.1	70	NT	91
Acetonitrile	NT		<0.63	NT	1.9	NT	NT	NT	NT	NT	NT	ND	3.5	NT	NS
Acrolein	NT		4.0	NT	6.3	NT	NT	NT	NT	NT	NT	ND	5.6	NT	NS
Acrylonitrile	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Benzene	1.2	1.6	<0.63	0.83	0.86	0.92	0.9	<0.639	0.97	0.9	0.87	1.81	1.4	**2.3**	2.3
Benzyl chloride	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Bromodichloromethane	NT		<0.63	NT	<0.64	NT	NT	<1.34	NT	NT	NT	ND	<0.64	NT	0.13
Bromoform	NT		<0.63	NT	<0.64	NT	NT	<2.07	NT	NT	NT	ND	<0.64	NT	2.1
Bromomethane	NT		<0.63	NT	<0.64	NT	NT	<0.777	NT	NT	NT	ND	<0.64	NT	0.6
n-Butyl Acetate	NT		1.5	NT	2.6	NT	NT	NT	NT	NT	NT	ND	1.2	NT	NS
Carbon disulfide	NT	0.65	<6.3	NT	<6.4	NT	NT	NT	NT	NT	NT	ND	<6.4	NT	NS
Carbon tetrachloride	NT	0.42	<0.63	NT	<0.64	NT	NT	<1.26	NT	NT	NT	0.416	<0.64	NT	0.54
Chlorobenzene	NT		<0.63	NT	<0.64	NT	NT	<0.921	NT	NT	NT	ND	<0.64	NT	2.3
Chloroethane	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Chloroform	0.29	0.87	1.7	0.63	1.3	1.5	0.92	**3.71**	0.97	1.0	0.62	0.698	1.6	**2.8**	1.9
Chloromethane	NT	2.4	1.2	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
cis-1,2-Dichloroethene	<0.14		<0.63	<0.14	<0.64	<0.14	<0.14	<0.793	<0.14	<0.14	<0.14	ND	<0.64	<0.14	0.8
cis-1,3-Dichloropropene	NT		<0.63	NT	<0.64	NT	NT	<0.908	NT	NT	NT	ND	<0.64	NT	0.58
Cumene	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Cyclohexane	NT	1.6	<1.3	NT	<1.3	NT	NT	NT	NT	NT	NT	ND	<1.3	NT	NS
Dibromochloromethane	NT		<0.63	NT	<0.64	NT	NT	<1.7	NT	NT	NT	ND	<0.64	NT	0.097
Dichlorodifluoromethane (Freon 12)	NT	2.1	1.9	NT	2.8	NT	NT	NT	NT	NT	NT	ND	2.8	NT	NS
Ethanol	NT	290	400	NT	410	NT	NT	NT	NT	NT	NT	NT	1,900	NT	NS
Ethyl Acetate	NT	2	3.9	NT	11	NT	NT	NT	NT	NT	NT	ND	8.4	NT	NS
Ethylbenzene	NT	0.96	<0.63	NT	<0.64	NT	NT	<0.869	NT	NT	NT	0.569	<0.64	NT	7.4
Freon-113	NT	0.61	<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Freon-114	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Hexachlorobutadiene	NT		<0.63	NT	<0.64	NT	NT	<2.13	NT	NT	NT	ND	<0.64	NT	0.11
Isopropanol	NT	14	9.0	NT	48	NT	NT	NT	NT	NT	NT	ND	69	NT	NS
d-Limonene	NT		6.5	NT	8.9	NT	NT	NT	NT	NT	NT	ND	18	NT	NS
Methylene chloride	NT	10	<0.63	NT	0.68	NT	NT	<4.86	NT	NT	NT	ND	<0.64	NT	11
Methyl Methacrylate	NT		<1.3	NT	<1.3	NT	NT	NT	NT	NT	NT	ND	<1.3	NT	NS
4-Methyl-2-pentanone	NT	1	<0.63	NT	<0.64	NT	NT	<0.82	NT	NT	NT	ND	0.66	NT	2.2
Methyl tert butyl ether	NT		<0.63	NT	<0.64	NT	NT	<0.721	NT	NT	NT	ND	<0.64	NT	NS
p/m-Xylene	NT		<1.3	NT	1.4	NT	NT	1.7	NT	NT	NT	ND	1.5	NT	20
o-Xylene	NT		<0.63	NT	<0.64	NT	NT	<0.869	NT	NT	NT	0.491	<0.64	NT	20
Total Xylenes	NT	4.1	<1.93	NT	<2.04	NT	NT	<2.569	NT	NT	NT	ND	<2.14	NT	20
Heptane	NT	4.3	<0.63	NT	0.98	NT	NT	NT	NT	NT	NT	ND	0.71	NT	NS
n-Hexane	NT	6.3	<0.63	NT	0.72	NT	NT	NT	NT	NT	NT	ND	0.84	NT	NS
Naphthalene	NT		**4.5**	NT	**5.2**	NT	NT	**3.24**	NT	NT	NT	**0.629**	**5.3**	NT	0.6
n-Nonane	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
n-Octane	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
alpha-Pinene	NT		14	NT	7.2	NT	NT	NT	NT	NT	NT	ND	10	NT	NS
Propylene	NT		2.7	NT	20	NT	NT	NT	NT	NT	NT	ND	21	NT	NS
n-Propylbenzene	NT		<0.63	NT	<0.64	NT	NT	NT	NT	NT	NT	ND	<0.64	NT	NS
Styrene	NT	**2.1**	**1.7**	NT	**1.6**	NT	NT	**1.48**	NT	NT	NT	0.600	**1.5**	NT	1.4
Tetrachloroethene	<0.24	0.38	<0.63	<0.24	<0.64	<0.24	<0.24	<1.36	<0.24	<0.24	<0.24	0.739	<0.64	<0.24	1.4
Tetrahydrofuran	NT	0.91	1.4	NT	1.1	NT	NT	NT	NT	NT	NT	ND	0.71	NT	NS
Toluene	NT	6.2	3.9	NT	6.6	NT	NT	3.96	NT	NT	NT	4.45	4.5	NT	54
trans-1,2-Dichloroethene	<0.14		<0.63	<0.14	<0.64	<0.14	<0.14	<0.793	<0.14	<0.14	<0.14	ND	<0.64	<0.14	0.8
trans-1,3-Dichloropropene	NT		<0.63	NT	<0.64	NT	NT	<0.908	NT	NT	NT	ND	<0.64	NT	NS
Trichloroethene	<0.19	<0.27	<0.63	<0.19	<0.64	<0.19	<0.19	<1.07	<0.19	<0.19	<0.19	0.129	<0.64	<0.19	0.4
Trichlorofluoromethane (Freon 11)	1.4	1.4	1.2	1.5	2.0	1.5	1.5	NT	1.7	1.5	1.4	ND	1.4	1.6	NS
Vinyl acetate	NT		8.0	NT	<6.4	NT	NT	NT	NT	NT	NT	ND	<6.4	NT	NS
Vinyl bromide	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NT	NT	NS
Vinyl chloride	NT		<0.63	NT	<0.64	NT	NT	<0.511	NT	NT	NT	ND	<0.64	NT	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

Sample:	Unit 235		Unit 236	Unit 237	Unit 238	UNIT 239	Unit 241	Unit 242					TVr
Sampled By:	CHA	Arcadia	CHA	CHA	CHA	C&C	C&C	C&C	C&C	CHA	CHA	CHA	
Testing Duration (hours)	24	24	24	24	24	24	24	24	24	24	24	24	
Lab:	Contest	Alpha	Alpha	Contest	Contest	Alpha	Alpha	Alpha	Alpha	Contest	Contest	Arcadia	
Location:	On 3' high bar in back of living room	On 3' high dining room table	On 3' table in living room	On 4' high kitchen table	On 2' high table behind couch	Kitchen/Main Living Area - Table	On Kitchen Island at edge of Kitchen near Living room 3' high	In Middle of living room on desk 3' high	In Middle of living room on desk 3' high	On 2' high table in living room	On 4' high table near window	On 3' sewing machine	
Date:	1/7/2014	5/6/2017	9/9/2013	1/7/2014	1/8/2014	10/2/2009	2/11/2013	2/11/2013	4/2/2013	1/7/2014	2/25/2016	4/7/2017	
Occupants:		One Male mid 30s	One Male mid 30s, one Female mid 30s	One Female Age 25 One Male Age 27			One Female one Male Ages 5 and 23	Male and Female Ages 28 + 29	Male and Female Ages 28 + 29	One female Age 29 One male age 30	One male and one female mid 20s	One male mid 40s	
PID Screening (ppmv):	0.254	NT	0.401	0.191	0.255	6.7	0.23	0.21	0.338	0.17	0.089	NT	
		Post sample Owner & Occupant 4/28/17	Post Sample Owner 10/9/13				Post Sample Owner 2/27/13	Post Sample 2/20/13, IH City 2/20/13, IH Owner 2/20/13	Post Sample Owner & occupant 4/15/13	Post Sample Owner & occupant 2/10/14	Post Sample Owner & occupant 3/15/16	Post Sample Owner & occupant 4/1/17	
Volatile Organic Compunds - TO-15 Analyses (ug/m3)													
1,1,1-Trichloroethane	NT	ND	<1.09	NT	NT	<1.09	<1.09	<1.09	<1.09	NT	NT	ND	3
1,1,2,2-Tetrachloroethane	NT	ND	<1.37	NT	NT	<1.37	<1.37	<1.37	<1.37	NT	NT	ND	0.04
1,1,2-Trichloroethane	NT	ND	<1.09	NT	NT	<1.09	<1.09	<1.09	<1.09	NT	NT	ND	0.15
1,1-Dichloroethane	NT	ND	<0.809	NT	NT	<0.809	<0.809	<0.809	<0.809	NT	NT	ND	0.8
1,1-Dichloroethene	NT	ND	<0.793	NT	NT	<0.792	<0.793	<0.793	<0.793	NT	NT	ND	0.8
1,2,4-Trichlorobenzene	NT	ND	<1.48	NT	NT	<1.48	<1.48	<1.48	<1.48	NT	NT	ND	0.4
1,2,4-Trimethylbenzene	0.53	ND	NT	0.19	0.31	<0.982	NT	NT	NT	<0.17	<0.17	ND	NS
1,2-Dibromo-3-chloropropane	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
1,2-Dibromoethane (EDB)	NT	ND	<1.54	NT	NT	<1.54	<1.54	<1.54	<1.54	NT	NT	ND	0.0078
1,2-Dichlorobenzene	NT	ND	<1.2	NT	NT	<1.2	<1.2	<1.2	<1.2	NT	NT	ND	0.72
1,2-Dichloroethane	NT	**0.215**	<0.809	NT	NT	<0.809	<0.809	<0.809	<0.809	NT	NT	**0.223**	0.09
1,2-Dichloropropane	NT	0.139	<0.924	NT	NT	<0.924	<0.924	<0.924	<0.924	NT	NT	ND	0.12
1,3,5-Trimethybenzene	0.18	ND	NT	<0.17	<0.17	<0.982	NT	NT	NT	<0.17	<0.17	ND	NS
1,3-Butadiene	NT	ND	NT	NT	NT	<0.442	NT	NT	NT	NT	NT	ND	NS
1,3-Dichlorobenzene	NT	ND	<1.2	NT	NT	<1.2	<1.2	<1.2	<1.2	NT	NT	ND	0.6
1,4-Dichlorobenzene	NT	ND	<1.2	NT	NT	<1.2	<1.2	<1.2	<1.2	NT	NT	ND	0.5
1,4-Dioxane	NT	ND	<0.721	NT	NT	<0.72	<0.721	<0.721	<0.721	NT	NT	ND	0.47
2,2,4-Trimethylpentane	NT	ND	NT	NT	NT	<0.934	NT	NT	NT	NT	NT	ND	NS
2-Butanone (MEK)	<4.1	1.83	1.98	<4.1	<4.1	2.06	1.2	1.07	0.616	<4.1	<4.1	ND	12
2-Hexanone	NT	ND	NT	NT	NT	<0.819	NT	NT	NT	NT	NT	ND	NS
3-Chloropropene	NT	ND	NT	NT	NT	<0.626	NT	NT	NT	NT	NT	ND	NS
4-Ethyltoluene	NT	ND	NT	NT	NT	<0.982	NT	NT	NT	NT	NT	ND	NS
Acetone	NT	32.8	66.8	NT	NT	28.6	26.6	22.1	11.6	NT	NT	22.5	91
Acetonitrile	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Acrolein	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Acrylonitrile	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Benzene	1.2	1.65	<0.639	1.8	1.0	0.667	1.34	1.2	<0.639	0.82	0.74	0.664	2.3
Benzyl chloride	NT	ND	NT	NT	NT	<1.03	NT	NT	NT	NT	NT	ND	NS
Bromodichloromethane	NT	ND	<1.34	NT	NT	<1.34	<1.34	<1.34	<1.34	NT	NT	ND	0.13
Bromoform	NT	ND	<2.07	NT	NT	<2.06	<2.07	<2.07	<2.07	NT	NT	ND	2.1
Bromomethane	NT	ND	<0.777	NT	NT	<0.776	<0.777	<0.777	<0.777	NT	NT	ND	0.6
n-Butyl Acetate	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Carbon disulfide	NT	ND	NT	NT	NT	<0.622	NT	NT	NT	NT	NT	ND	NS
Carbon tetrachloride	NT	0.421	<1.26	NT	NT	<1.26	<1.26	<1.26	<1.26	NT	NT	0.459	0.54
Chlorobenzene	NT	ND	<0.921	NT	NT	<0.92	<0.921	<0.921	<0.921	NT	NT	ND	2.3
Chloroethane	NT	ND	NT	NT	NT	<0.527	NT	NT	NT	NT	NT	ND	NS
Chloroform	1.0	2.37	<0.977	0.83	0.28	<0.976	<0.977	<0.977	<0.977	0.56	0.44	0.366	1.9
Chloromethane	NT	ND	NT	NT	NT	<0.413	NT	NT	NT	NT	NT	ND	NS
cis-1,2-Dichloroethene	<0.14	ND	<0.793	<0.14	<0.14	<0.792	<0.793	<0.793	<0.793	<0.14	<0.14	ND	0.8
cis-1,3-Dichloropropene	NT	ND	<0.908	NT	NT	<0.907	<0.908	<0.908	<0.908	NT	NT	ND	0.58
Cumene	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Cyclohexane	NT	ND	NT	NT	NT	<0.688	NT	NT	NT	NT	NT	ND	NS
Dibromochloromethane	NT	ND	<1.7	NT	NT	<1.7	<1.7	<1.7	<1.7	NT	NT	ND	0.097
Dichlorodifluoromethane (Freon 12)	NT	ND	NT	NT	NT	2.94	NT	NT	NT	NT	NT	ND	NS
Ethanol	NT	ND	NT	NT	NT	161	NT	NT	NT	NT	NT	ND	NS
Ethyl Acetate	NT	ND	NT	NT	NT	5.8	NT	NT	NT	NT	NT	ND	NS
Ethylbenzene	NT	0.578	<0.869	NT	NT	<0.868	<0.869	<0.869	<0.869	NT	NT	0.191	7.4
Freon-113	NT	ND	NT	NT	NT	<1.53	NT	NT	NT	NT	NT	ND	NS
Freon-114	NT	ND	NT	NT	NT	<1.4	NT	NT	NT	NT	NT	ND	NS
Hexachlorobutadiene	NT	ND	<2.13	NT	NT	<2.13	<2.13	<2.13	<2.13	NT	NT	ND	0.11
Isopropanol	NT	ND	NT	NT	NT	11.2	NT	NT	NT	NT	NT	ND	NS
d-Limonene	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Methylene chloride	NT	ND	<4.86	NT	NT	<1.74	5.73	<4.86	<4.86	NT	NT	ND	11
Methyl Methacrylate	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
4-Methyl-2-pentanone	NT	ND	<0.82	NT	NT	<0.819	<0.82	<0.82	<0.82	NT	NT	ND	2.2
Methyl tert butyl ether	NT	ND	<0.721	NT	NT	<0.72	<0.721	<0.721	<0.721	NT	NT	ND	NS
p/m-Xylene	NT	1.15	<1.74	NT	NT	<1.74	2.21	2.15	<1.74	NT	NT	0.486	20
o-Xylene	NT	0.387	<0.869	NT	NT	<0.868	<0.869	0.882	<0.869	NT	NT	0.187	20
Total Xylenes	NT	ND	<2.569	NT	NT	<2.608	<3.079	3.032	<2.609	NT	NT	ND	20
Heptane	NT	ND	NT	NT	NT	<0.819	NT	NT	NT	NT	NT	ND	NS
n-Hexane	NT	ND	NT	NT	NT	<0.704	NT	NT	NT	NT	NT	ND	NS
Naphthalene	NT	0.467	**1.26**	NT	NT	NT	<1.05	<1.05	<1.05	NT	NT	ND	0.6
n-Nonane	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
n-Octane	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
alpha-Pinene	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Propylene	NT	ND	NT	NT	NT	0.387	NT	NT	NT	NT	NT	ND	NS
n-Propylbenzene	NT	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	NS
Styrene	NT	0.668	1.25	NT	NT	<0.851	<0.852	<0.852	<0.852	NT	NT	0.290	1.4
Tetrachloroethene	<0.24	0.305	<1.36	<0.24	<0.24	<1.36	<1.36	<1.36	<1.36	<0.24	<0.24	0.407	1.4
Tetrahydrofuran	NT	ND	NT	NT	NT	0.972	NT	NT	NT	NT	NT	ND	NS
Toluene	NT	3.61	2.64	NT	NT	2.91	4.03	3.14	<0.754	NT	NT	2.05	54
trans-1,2-Dichloroethene	<0.14	ND	<0.793	<0.14	<0.14	<0.792	<0.793	<0.793	<0.793	<0.14	<0.14	ND	0.8
trans-1,3-Dichloropropene	NT	ND	<0.908	NT	NT	<0.907	<0.908	<0.908	<0.908	NT	NT	ND	NS
Trichloroethene	<0.19	0.145	<1.07	<0.19	0.34	<1.07	<1.07	**3.78**	<1.07	<0.19	<0.19	0.602	0.4
Trichlorofluoromethane (Freon 11)	1.5	ND	NT	1.5	0.93	1.73	NT	NT	NT	1.5	1.2	ND	NS
Vinyl acetate	NT	ND	NT	NT	NT	<0.704	NT	NT	NT	NT	NT	ND	NS
Vinyl bromide	NT	ND	NT	NT	NT	<0.874	NT	NT	NT	NT	NT	ND	NS
Vinyl chloride	NT	ND	<0.511	NT	NT	<0.511	<0.511	<0.511	<0.511	NT	NT	ND	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

Table 1 - Indoor Air Analytical Data
Fremont Lofts
160 Fremont Street
Worcester, Massachusetts

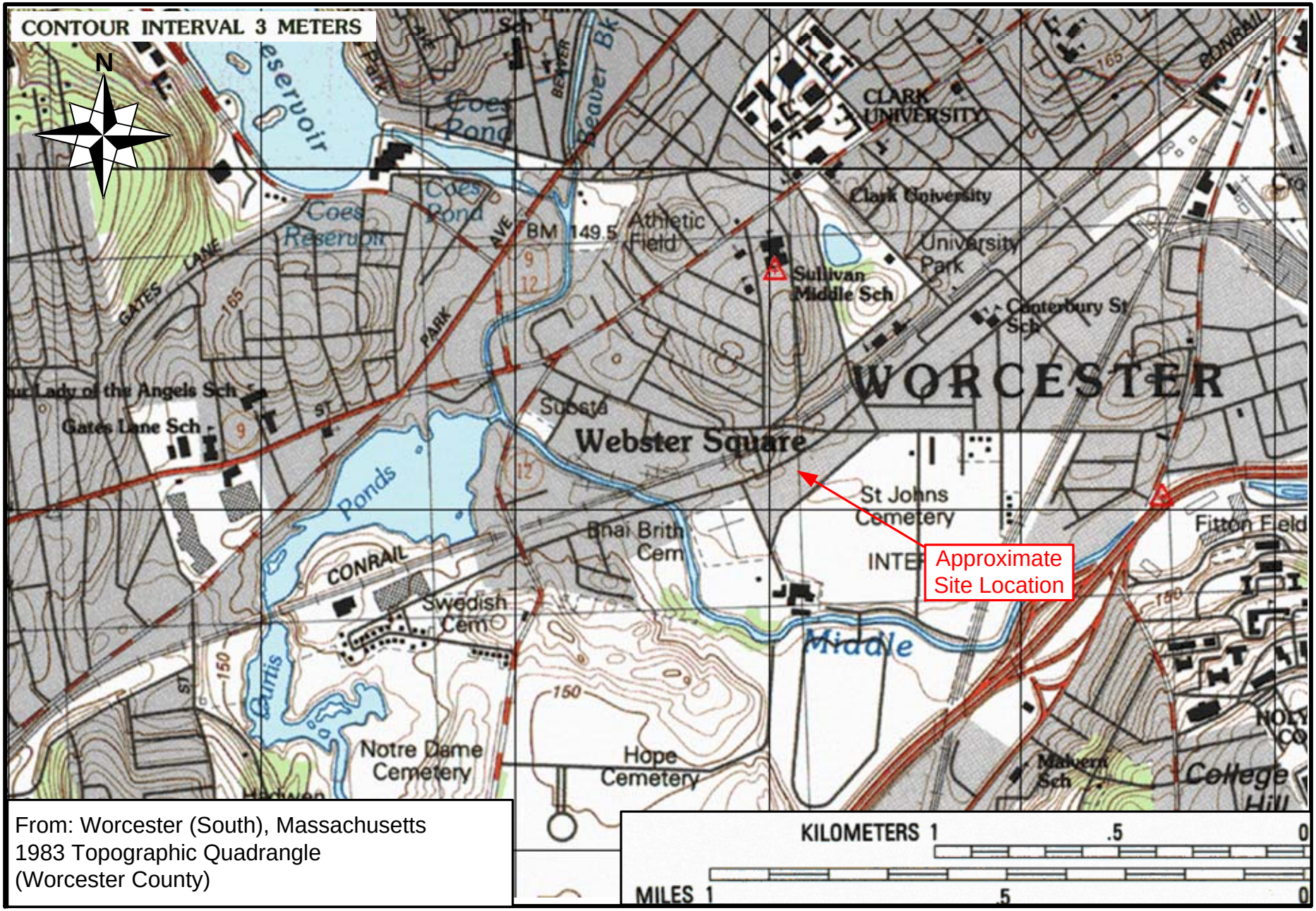
Sample:	Roof	Exterior West	Exterior East	
Sampled By:	Loitherstein	C&C	C&C	
Testing Duration (hours)	24	24	24	
Lab:	Contest	RI Analytical	RI Analytical	
Location:				
Date:	10/1/2009	8/16/2012	8/16/2012	
Occupants:				TVr
PID Screening (ppmv):		0.31	0.30	
Volatile Organic Compunds - TO-15 Analyses (ug/m3)				
1,1,1-Trichloroethane		<0.64	<0.63	3
1,1,2,2-Tetrachloroethane		<0.64	<0.63	0.04
1,1,2-Trichloroethane		<0.64	<0.63	0.15
1,1-Dichloroethane		<0.64	<0.63	0.8
1,1-Dichloroethene		<0.64	<0.63	0.8
1,2,4-Trichlorobenzene		<0.64	<0.63	0.4
1,2,4-Trimethylbenzene	<0.25	<0.64	<0.63	NS
1,2-Dibromo-3-chloropropane		<0.64	<0.63	NS
1,2-Dibromoethane (EDB)		<0.64	<0.63	0.0078
1,2-Dichlorobenzene		<0.64	<0.63	0.72
1,2-Dichloroethane	<0.2	<0.64	<0.63	0.09
1,2-Dichloropropane		<0.64	<0.63	0.12
1,3,5-Trimethybenzene	<0.25	<0.64	<0.63	NS
1,3-Butadiene		<0.64	<0.63	NS
1,3-Dichlorobenzene		<0.64	<0.63	0.6
1,4-Dichlorobenzene		<0.64	<0.63	0.5
1,4-Dioxane		<0.64	<0.63	0.57
2,2,4-Trimethylpentane		NT	NT	NS
2-Butanone (MEK)	1.4	<6.4	<6.3	12
2-Hexanone	0.48	<0.64	<0.63	NS
3-Chloropropene		<0.64	<0.63	NS
4-Ethyltoluene	<0.25	<0.64	<0.63	NS
Acetone	5.8	13	17	91
Acetonitrile		0.80	<0.63	NS
Acrolein		<2.5	<2.5	NS
Acrylonitrile		<0.64	<0.63	NS
Benzene	0.3	<0.64	<0.63	2.3
Benzyl chloride		<0.64	<0.63	NS
Bromodichloromethane		<0.64	<0.63	0.13
Bromoform		<0.64	<0.63	2.1
Bromomethane		<0.64	<0.63	0.6
n-Butyl Acetate		<0.64	<0.63	NS
Carbon disulfide	<0.16	<6.4	<6.3	NS
Carbon tetrachloride	0.45	<0.64	<0.63	0.54
Chlorobenzene		<0.64	<0.63	2.3
Chloroethane		<0.64	<0.63	NS
Chloroform	<0.24	<0.64	<0.63	1.9
Chloromethane	0.98	<0.64	<0.63	NS
cis-1,2-Dichloroethene		<0.64	<0.63	0.8
cis-1,3-Dichloropropene		<0.64	<0.63	0.58
Cumene		<0.64	<0.63	NS
Cyclohexane	<0.17	<1.3	<1.3	NS
Dibromochloromethane		<0.64	<0.63	0.097
Dichlorodifluoromethane (Freon 12)	2.2	2.9	3.2	NS
Ethanol	7.1	<6.4	12	NS
Ethyl Acetate	<0.18	<1.3	<1.3	NS
Ethylbenzene	0.25	<0.64	<0.63	7.4
Freon-113	0.46	<0.64	0.63	NS
Freon-114		<0.64	<0.63	NS
Hexachlorobutadiene		<0.64	<0.63	0.11
Isopropanol	0.64	<6.4	<6.3	NS
d-Limonene		<0.64	<0.63	NS
Methylene chloride	<0.69	<0.64	<0.63	11
Methyl Methacrylate		<1.3	<1.3	NS
4-Methyl-2-pentanone	<0.2	<0.64	<0.63	2.2
Methyl tert butyl ether		<0.64	<0.63	NS
p/m-Xylene		<1.3	<1.3	20
o-Xylene		<0.64	<0.63	20
Total Xylenes	0.44	<1.94	<1.93	20
Heptane	<0.2	<0.64	<0.63	NS
n-Hexane	0.43	<0.64	<0.63	NS
Naphthalene		<0.64	<0.63	0.6
n-Nonane		<0.64	<0.63	NS
n-Octane		<0.64	<0.63	NS
alpha-Pinene		<0.64	<0.63	NS
Propylene		1.7	2.8	NS
n-Propylbenzene		<0.64	<0.63	NS
Styrene	0.63	<0.64	<0.63	1.4
Tetrachloroethene	1.1	<0.64	<0.63	1.4
Tetrahydrofuran	<0.15	<0.64	<0.63	NS
Toluene	1	0.93	1.2	54
trans-1,2-Dichloroethene		<0.64	<0.63	0.8
trans-1,3-Dichloropropene		<0.64	<0.63	NS
Trichloroethene	<0.27	<0.64	<0.63	0.4
Trichlorofluoromethane (Freon 11)	1.2	1.3	1.4	NS
Vinyl acetate		<6.4	<6.3	NS
Vinyl bromide		NT	NT	NS
Vinyl chloride		<0.64	<0.63	0.27

NOTES:
1. TVr (Residential Threshold Values) were taken from Table I.A of MassDEP's October 2016 Vapor Intrusion Guidance(WSC-16-435)

2. The TVr are based on Typical Indoor Air Concentrations and MCP risk management criteria. It can generally be concluded that residential indoor air samples with contaminant concentrations less than their TVr indicate that the vapor intrusion pathway is unlikely to be of concern under current site conditions and use.

3. NS = no TV available, C&C = Coler & Colantonio, Inc., Loitherstein =Loitherstein Environmental, Inc.
4. **Bolded** values exceed the TV.
5. Values with the < Symbol before it are less than the Laboratory Detection Limits and the Laboratory Detection Limit is shown
6. * indicates that the Suma canister could not be shutdown after 24 hours
7. Subslab Depressurization Systems were actived proximal to unit 102 on February 12, 2013 and proximal to units 221 and 224 on March 20, 2013.
8. Building-wide SSDS was activated December 5, 2013.

FIGURES



From: Worcester (South), Massachusetts
1983 Topographic Quadrangle
(Worcester County)

CHA
design/construction solutions

158-160 Fremont Street
Worcester, Massachusetts
RTN 2-15725

Figure 1
Locus Map

LEGEND

- Approximate Monitoring Well Location
- Approximate Soil Boring Location
- Approximate Property Line

Approximate Monitoring Well Location-
June 2016 Drilling Event

REVISIONS:

No.	DATE	

GENERAL NOTES:

1. THE BASE MAP WAS DRAWN FROM A SITE PLAN PRODUCED BY THE CITY OF WORCESTER TECHNICAL SERVICES DIVISION GIS CITY OF WORCESTER ASSESSING DEPARTMENT, ENTITLED CITY OF WORCESTER TAX MAP TITLE I31 & J31, UPDATED NOVEMBER 1, 2008.

2. MONITORING WELL ELEVATIONS WERE ESTABLISHED USING THE SOUTHERN CORNER OF THE CONCRETE STEPS LEADING TO THE BUILDING ENTRANCE ON THE WESTERN SIDE OF THE 160 FREMONT STREET BUILDING AS AN ARBITRARY 100' ELEVATION.

3.GROUNDWATER ELEVATIONS ARE BASED ON A NOVEMBER 1, 2012 GROUNDWATER GAUGING EVENT.

CHA design/construction solutions
781-982-5400
Fax:781-982-5490
101 Accord Park Drive
Norwell, MA 02061-1685

TITLE:

FIGURE 2a - SITE PLAN
Soil & Groundwater Sampling Locations

158 - 160 Fremont Street
Worcester, Massachusetts

Project Number: 25241
RTN 2-15725

DATE:	DECEMBER 10, 2014
COMP./DESIGN:	LMK
CHECK:	RKB
DRAWN:	LMK
SCALE:	1" = 60'
JOB NO.:	25241
DWG NO.:Site Plan	SHEET 1 OF 1

0 15 30 60 90

Legend

- SG-1 — Approximate Location of Permanent Soil Gas Point
- SG-1 — Approximate Location of Temporary Soil Gas Point
- UNIT 216 — Approximate Location of Air Sample collected May 2009 .
- UNIT 216 — Approximate Location of Air Sample collected October 2009.
- Approximate Location of Background Sample collected October 2009.
- UNIT 216 — Approximate Location of Air Sample collected February 2010 .
- UNIT 216 — Approximate Location of Air Sample collected August 2012.
- UNIT 216 — Approximate Location of Air Sample collected Aug. 2012, Dec. 2012, Feb. 2013, & Mar. 2013.
- UNIT 216 — Approximate Location of Air Sample collected January 2013.
- UNIT 216 — Approximate Location of Air Sample collected February 2013.
- UNIT 216 — Approximate Location of Air Sample collected September 2013.
- UNIT 216 — Approximate Location of Air Sample collected January 2014.
- UNIT 216 — Approximate Location of Air Sample collected February 2016.
- △100' — Approximate Floor Elevation Relative to an Assumed 100' Benchmark.
- Approximate Location of Austin Air HealthMate Plus Air Filter.
- Approximate Former Location of Austin Air HealthMate Plus Air Filter.
- Approximate Location SSD System Extraction Point

Oct 13, 2004
Schematic Sign-Off Set

REVISIONS:

No.	DATE	

GENERAL NOTES:

1. THE BASE MAP WAS DRAWN FROM A SITE PLAN PRODUCED BY MSTUDIO, INC., DATED AUGUST 18, 2004.
2. FLOOR ELEVATIONS WERE ESTABLISHED USING THE SOUTHERN CORNER OF THE CONCRETE STEPS LEADING TO THE BUILDING ENTRANCE ON THE WESTERN SIDE OF THE 160 FREMONT STREET BUILDING AS AN ASSUMED 100' ELEVATION.

CHA
design/construction solutions
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101 Accord Park Drive
Norwell, MA 02061-1685

TITLE:

FIGURE 2b

Air & Soil Gas Sampling Locations
1ST FLOOR

Fremont Street Lofts
160 Fremont Street
Worcester, Massachusetts

RTN: 2-15725
Project Number: 25241

DATE: June 9, 2016	
COMP./DESIGN: APC	
CHECK: RKB	
DRAWN: APC	
SCALE: Not to Scale	
JOB NO.: 25241	
DWG NO.: Site Plan	SHEET 1 OF 1

Legend

- SG-1 — Approximate Location of Permanent Soil Gas Point
- Approximate Location of Temporary Soil Gas Point
- Unit 216 — Approximate Location of Air Sample collected May 2009 .
- Unit 216 — Approximate Location of Air Sample collected October 2009.
- Approximate Location of Background Sample collected October 2009.
- Unit 216 — Approximate Location of Air Sample collected February 2010 .
- Unit 216 — Approximate Location of Air Sample collected August 2012.
- Unit 216 — Approximate Location of Air Sample collected January 2013.
- Unit 216 — Approximate Location of Air Sample collected February 2013.
- Unit 216 — Approximate Location of Air Sample collected Jan. 2013 & Apr. 2013.
- Unit 216 — Approximate Location of Air Sample collected Feb. 2013 & Apr. 2013.
- Unit 216 — Approximate Location of Air Sample collected September 2013
- Unit 216 — Approximate Location of Air Sample collected January 2014.
- Unit 216 — Approximate Location of Air Sample collected February 2016.
- Approximate Location SSD System Extraction Point
- Approximate Floor Elevation Relative to an Assumed 100' Benchmark.
- Approximate Location of Austin Air HealthMate Plus Air Filter.
- Approximate Former Location of Austin Air HealthMate Plus Air Filter.

REVISIONS:

No.	DATE	

GENERAL NOTES:

1. THE BASE MAP WAS DRAWN FROM A SITE PLAN PRODUCED BY MSTUDIO, INC., DATED AUGUST 18, 2004.
2. FLOOR ELEVATIONS WERE ESTABLISHED USING THE SOUTHERN CORNER OF THE CONCRETE STEPS LEADING TO THE BUILDING ENTRANCE ON THE WESTERN SIDE OF THE 160 FREMONT STREET BUILDING AS AN ASSUMED 100' ELEVATION.

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781-982-5400
Fax: 781-982-5490
101 Accord Park Drive
Norwell, MA 02061-1685

TITLE:

FIGURE 2c

Air & Soil Gas Sampling Locations 2ND FLOOR

Fremont Street Lofts
160 Fremont Street
Worcester, Massachusetts

RTN: 2-15725
Project Number: 25241

DATE: June 9, 2016	
COMP./DESIGN: APC	
CHECK: RKB	
DRAWN: APC	
SCALE: NOT TO SCALE	
JOB NO.: 25241	
DWG NO.: Site Plan	SHEET 1 OF 1

APPENDIX A

BWSC Transmittal Forms

Signature Authorization

To whom it may concern:

This document is intended to validate the legal authorization and signature authorization of the responsible party in accordance with Massachusetts Contingency Plan 310 CMR 40.0009(1) and 310 CMR 40.0009(2) respectively.

Therefore, in accordance with the Massachusetts Contingency Plan 310 CMR 40.0009(1) and 310 CMR 40.0009(2), this document represents that I, Michael Valente of First Realty Management Corp, agent for Fremont Lofts Condominium Trust fully authorize Ronald K. Burns, LSP #9492, Principal Engineer VI, of CHA Norwell to act upon and make this attestation on my behalf (the responsible party) for its submittal and to sign as my agent for any other e-DEP BWSC documents for the Releases identified by RTN 2-15725 , RTN 2-17651 and RTN 2-18748.

Signature

Date 11/19/15

Name: Mr. Michael Valente
Company: First Realty Management Corp.
Address: 151 Tremont Street, PH 1
Boston, MA 02111

APPENDIX B

Laboratory Analytical Reports

ANALYTICAL REPORT

Lab Number:	L1711018
Client:	Arcadia Technology 1865 Beacon St. #1 Brookline, MA 02445
ATTN:	Ronald Burns
Phone:	(617) 202-6278
Project Name:	FREMONT LOFT
Project Number:	16014
Report Date:	04/12/17

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FREMONT LOFT
Project Number: 16014

Lab Number: L1711018
Report Date: 04/12/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1711018-01	IA-102	AIR	Not Specified	04/07/17 08:02	04/07/17
L1711018-02	IA-242	AIR	Not Specified	04/07/17 08:14	04/07/17
L1711018-03	IA-221	AIR	Not Specified	04/07/17 09:02	04/07/17

Project Name: FREMONT LOFT **Lab Number:** L1711018

Project Number: 16014 **Report Date:** 04/12/17

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FREMONT LOFT **Lab Number:** L1711018
Project Number: 16014 **Report Date:** 04/12/17

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on April 4, 2017. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Sample L1711018-02 and -03 results for Acetone should be considered estimated due to co-elution with a non-target peak.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/12/17

AIR

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-01
Client ID: IA-102
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 17:51
Analyst: MB

Date Collected: 04/07/17 08:02
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	7.92	1.00	--	18.8	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.055	0.020	--	0.269	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.203	0.100	--	0.649	0.319	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.809	0.050	--	3.05	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-01
Client ID: IA-102
Sample Location:
Date Collected: 04/07/17 08:02
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.055	0.020	--	0.239	0.087	--		1
p/m-Xylene	0.151	0.040	--	0.656	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.059	0.020	--	0.251	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.057	0.020	--	0.248	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.056	0.050	--	0.294	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	86		60-140

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-02
Client ID: IA-242
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 18:26
Analyst: MB

Date Collected: 04/07/17 08:14
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	9.48	1.00	--	22.5	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.075	0.020	--	0.366	0.098	--		1
1,2-Dichloroethane	0.055	0.020	--	0.223	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.208	0.100	--	0.664	0.319	--		1
Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.112	0.020	--	0.602	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.545	0.050	--	2.05	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-02
Client ID: IA-242
Sample Location:
Date Collected: 04/07/17 08:14
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.060	0.020	--	0.407	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.044	0.020	--	0.191	0.087	--		1
p/m-Xylene	0.112	0.040	--	0.486	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.068	0.020	--	0.290	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.043	0.020	--	0.187	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	79		60-140

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-03
Client ID: IA-221
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 19:01
Analyst: MB

Date Collected: 04/07/17 09:02
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	6.32	1.00	--	15.0	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	0.587	0.500	--	2.04	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.079	0.020	--	0.386	0.098	--		1
1,2-Dichloroethane	0.024	0.020	--	0.097	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.180	0.100	--	0.575	0.319	--		1
Carbon tetrachloride	0.077	0.020	--	0.484	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.398	0.050	--	1.50	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-03
Client ID: IA-221
Sample Location:
Date Collected: 04/07/17 09:02
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.043	0.020	--	0.187	0.087	--		1
p/m-Xylene	0.112	0.040	--	0.486	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.059	0.020	--	0.251	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.042	0.020	--	0.182	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	77		60-140

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 13:50

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG992775-4								
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 13:50

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG992775-4								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 13:50

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG992775-4								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREMONT LOFT

Project Number: 16014

Lab Number: L1711018

Report Date: 04/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG992775-3								
Propylene	107		-		70-130	-		
Chloromethane	89		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	79		-		70-130	-		
Vinyl chloride	86		-		70-130	-		
1,3-Butadiene	93		-		70-130	-		
Bromomethane	84		-		70-130	-		
Chloroethane	84		-		70-130	-		
Ethyl Alcohol	86		-		70-130	-		
Vinyl bromide	79		-		70-130	-		
Acetone	96		-		50-150	-		
Trichlorofluoromethane	86		-		70-130	-		
iso-Propyl Alcohol	87		-		70-130	-		
1,1-Dichloroethene	86		-		70-130	-		
tert-Butyl Alcohol[1]	75		-		70-130	-		
Methylene chloride	90		-		70-130	-		
3-Chloropropene	93		-		70-130	-		
Carbon disulfide	78		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	86		-		70-130	-		
Halothane	91		-		70-130	-		
trans-1,2-Dichloroethene	85		-		70-130	-		
1,1-Dichloroethane	91		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREMONT LOFT

Project Number: 16014

Lab Number: L1711018

Report Date: 04/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG992775-3								
Methyl tert butyl ether	84		-		70-130	-		
Vinyl acetate	108		-		70-130	-		
2-Butanone	94		-		70-130	-		
cis-1,2-Dichloroethene	91		-		70-130	-		
Ethyl Acetate	96		-		70-130	-		
Chloroform	91		-		70-130	-		
Tetrahydrofuran	94		-		70-130	-		
1,2-Dichloroethane	87		-		70-130	-		
n-Hexane	103		-		70-130	-		
1,1,1-Trichloroethane	95		-		70-130	-		
Benzene	99		-		70-130	-		
Carbon tetrachloride	96		-		70-130	-		
Cyclohexane	103		-		70-130	-		
Dibromomethane[1]	79		-		70-130	-		
1,2-Dichloropropane	100		-		70-130	-		
Bromodichloromethane	97		-		70-130	-		
1,4-Dioxane	97		-		50-150	-		
Trichloroethene	92		-		70-130	-		
2,2,4-Trimethylpentane	106		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	104		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREMONT LOFT

Project Number: 16014

Lab Number: L1711018

Report Date: 04/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG992775-3								
trans-1,3-Dichloropropene	83		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	96		-		70-130	-		
2-Hexanone	93		-		70-130	-		
Dibromochloromethane	94		-		70-130	-		
1,2-Dibromoethane	94		-		70-130	-		
Tetrachloroethene	87		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	93		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	88		-		70-130	-		
Styrene	95		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		
o-Xylene	94		-		70-130	-		
1,2,3-Trichloropropane[1]	91		-		70-130	-		
Bromobenzene[1]	91		-		70-130	-		
1,3,5-Trimethylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	101		-		70-130	-		
Benzyl chloride	89		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	98		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREMONT LOFT

Project Number: 16014

Lab Number: L1711018

Report Date: 04/12/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG992775-3								
1,2-Dichlorobenzene	98		-		70-130	-		
1,2,4-Trichlorobenzene	101		-		50-150	-		
Naphthalene	89		-		50-150	-		
1,2,3-Trichlorobenzene	92		-		70-130	-		
Hexachlorobutadiene	98		-		50-150	-		

Project Name: FREMONT LOFT

Lab Number: L1711018

Project Number: 16014

Report Date: 04/12/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1711018-01	IA-102	0982	Flow 5	04/04/17	239248		-	-	-	Pass	3.2	3.4	6
L1711018-01	IA-102	706	6.0L Can	04/04/17	239248	L1709994-05	Pass	-29.7	-2.0	-	-	-	-
L1711018-02	IA-242	0133	Flow 5	04/04/17	239248		-	-	-	Pass	3.0	3.0	0
L1711018-02	IA-242	2048	6.0L Can	04/04/17	239248	L1709994-05	Pass	-29.8	-8.8	-	-	-	-
L1711018-03	IA-221	0188	Flow 5	04/04/17	239248		-	-	-	Pass	3.0	3.1	3
L1711018-03	IA-221	1903	6.0L Can	04/04/17	239248	L1709994-05	Pass	-29.7	-10.3	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 04/01/17 11:27
Analyst: MB

Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709994

Project Number: CANISTER QC BAT **Report Date:** 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05 Date Collected: 03/31/17 17:00

Client ID: CAN 1779 SHELF 57 Date Received: 04/01/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	94		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/01/17 11:27
Analyst: MR

Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1709994
Report Date: 04/12/17

Air Canister Certification Results

Lab ID: L1709994-05
Client ID: CAN 1779 SHELF 57
Sample Location:
Date Collected: 03/31/17 17:00
Date Received: 04/01/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	99		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	95		60-140

Project Name: FREMONT LOFT
Project Number: 16014

Lab Number: L1711018
Report Date: 04/12/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**
Cooler
N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1711018-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	MCP-TO15-SIM(30)
L1711018-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	MCP-TO15-SIM(30)
L1711018-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	MCP-TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FREMONT LOFT	**Lab Number:**	L1711018
Project Number:	16014	**Report Date:**	04/12/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report

Project Name:	FREMONT LOFT	**Lab Number:**	L1711018
Project Number:	16014	**Report Date:**	04/12/17

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	FREMONT LOFT	**Lab Number:**	L1711018
Project Number:	16014	**Report Date:**	04/12/17

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE ____ OF ____

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/7/17

ALPHA Job #: L1711018

Client Information

Client: Arcadia Technology
Address: 1865 Beacon St
Phone: 617-202-6278
Fax:
Email: rburns@arcadia-tec.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Fremont Loft
Project Location:
Project #: 16014
Project Manager: R. Burns
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH *(only confirmed if pre-approved!)*
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	(Res) / Comm
MA	MCP	X

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases ☐	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
1018-01	IA-102	4/7/17	8:11AM	8:02	-29.01	-0.70				906	0982	X					
-02	IA-242	4/7/17	8:32	8:14	-29.38	-8.21				2048	0133	↓					
-03	IA-221	4/7/17	9:07	9:01	-27.00	-9.87				1903	0188	↓					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature] 4/7/17	1000	[signature]	4/7/17 1000
4-7-17	19:15		4/7/17 19:19

Form No: 101-02 Rev: (25-Sep-15)

ANALYTICAL REPORT

Lab Number:	L1715548
Client:	Arcadia Technology 1865 Beacon St. #1 Brookline, MA 02445
ATTN:	Ronald Burns
Phone:	(617) 202-6278
Project Name:	FREEMONT LOFT
Project Number:	1601.4
Report Date:	05/18/17

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), NJ NELAP (MA015), CT (PH-0141), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-13-00067), USFWS (Permit #LE2069641).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FREEMONT LOFT
Project Number: 1601.4

Lab Number: L1715548
Report Date: 05/18/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1715548-01	IA-235	AIR	Not Specified	05/06/17 07:01	05/12/17
L1715548-02	IA-233	AIR	Not Specified	05/12/17 09:05	05/12/17

Project Name: FREEMONT LOFT **Lab Number:** L1715548

Project Number: 1601.4 **Report Date:** 05/18/17

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FREEMONT LOFT	**Lab Number:**	L1715548
Project Number:	1601.4	**Report Date:**	05/18/17

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on May 3, 2017. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 05/18/17

AIR

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-01
Client ID: IA-235
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 05/17/17 23:42
Analyst: RY

Date Collected: 05/06/17 07:01
Date Received: 05/12/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	13.8	1.00	--	32.8	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.621	0.500	--	1.83	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.486	0.020	--	2.37	0.098	--		1
1,2-Dichloroethane	0.053	0.020	--	0.215	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.518	0.100	--	1.65	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
1,2-Dichloropropane	0.030	0.020	--	0.139	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.027	0.020	--	0.145	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.959	0.050	--	3.61	0.188	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-01
Client ID: IA-235
Sample Location:
Date Collected: 05/06/17 07:01
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.133	0.020	--	0.578	0.087	--		1
p/m-Xylene	0.265	0.040	--	1.15	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.157	0.020	--	0.668	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.089	0.020	--	0.387	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.089	0.050	--	0.467	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	96		60-140

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-02
Client ID: IA-233
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 05/18/17 00:17
Analyst: RY

Date Collected: 05/12/17 09:05
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	15.6	1.00	--	37.1	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.722	0.500	--	2.13	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.143	0.020	--	0.698	0.098	--		1
1,2-Dichloroethane	0.050	0.020	--	0.202	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.566	0.100	--	1.81	0.319	--		1
Carbon tetrachloride	0.066	0.020	--	0.415	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.024	0.020	--	0.129	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	1.18	0.050	--	4.45	0.188	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-02
Client ID: IA-233
Sample Location:
Date Collected: 05/12/17 09:05
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.109	0.020	--	0.739	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.131	0.020	--	0.569	0.087	--		1
p/m-Xylene	0.357	0.040	--	1.55	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.141	0.020	--	0.600	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.113	0.020	--	0.491	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.120	0.050	--	0.629	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 05/17/17 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG1002965-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 05/17/17 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG1002965-4								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO15-SIM
Analytical Date: 05/17/17 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG1002965-4								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREEMONT LOFT

Project Number: 1601.4

Lab Number: L1715548

Report Date: 05/18/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1002965-3								
Propylene	102		-		70-130	-		
Dichlorodifluoromethane	127		-		70-130	-		
Chloromethane	102		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	115		-		70-130	-		
Vinyl chloride	107		-		70-130	-		
1,3-Butadiene	111		-		70-130	-		
Bromomethane	104		-		70-130	-		
Chloroethane	102		-		70-130	-		
Ethyl Alcohol	84		-		70-130	-		
Vinyl bromide	100		-		70-130	-		
Acetone	106		-		50-150	-		
Trichlorofluoromethane	105		-		70-130	-		
iso-Propyl Alcohol	99		-		70-130	-		
1,1-Dichloroethene	102		-		70-130	-		
tert-Butyl Alcohol[1]	74		-		70-130	-		
Methylene chloride	117		-		70-130	-		
3-Chloropropene	103		-		70-130	-		
Carbon disulfide	98		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	109		-		70-130	-		
Halothane	109		-		70-130	-		
trans-1,2-Dichloroethene	97		-		70-130	-		
1,1-Dichloroethane	98		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREEMONT LOFT

Project Number: 1601.4

Lab Number: L1715548

Report Date: 05/18/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1002965-3								
Vinyl acetate	86		-		70-130	-		
2-Butanone	88		-		70-130	-		
cis-1,2-Dichloroethene	98		-		70-130	-		
Ethyl Acetate	101		-		70-130	-		
Chloroform	101		-		70-130	-		
Tetrahydrofuran	85		-		70-130	-		
1,2-Dichloroethane	97		-		70-130	-		
n-Hexane	92		-		70-130	-		
1,1,1-Trichloroethane	90		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	89		-		70-130	-		
Cyclohexane	92		-		70-130	-		
Dibromomethane[1]	78		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	92		-		70-130	-		
1,4-Dioxane	96		-		50-150	-		
Trichloroethene	87		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
cis-1,3-Dichloropropene	94		-		70-130	-		
4-Methyl-2-pentanone	87		-		70-130	-		
trans-1,3-Dichloropropene	80		-		70-130	-		
1,1,2-Trichloroethane	97		-		70-130	-		
Toluene	99		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FREEMONT LOFT

Project Number: 1601.4

Lab Number: L1715548

Report Date: 05/18/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1002965-3								
2-Hexanone	91		-		70-130	-		
Dibromochloromethane	97		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Tetrachloroethene	98		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	100		-		70-130	-		
Bromoform	95		-		70-130	-		
Styrene	100		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	100		-		70-130	-		
1,2,3-Trichloropropane[1]	91		-		70-130	-		
Bromobenzene[1]	91		-		70-130	-		
1,3,5-Trimethylbenzene	101		-		70-130	-		
1,2,4-Trimethylbenzene	105		-		70-130	-		
Benzyl chloride	89		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	101		-		70-130	-		
1,2-Dichlorobenzene	103		-		70-130	-		
1,2,4-Trichlorobenzene	113		-		50-150	-		
Naphthalene	105		-		50-150	-		
1,2,3-Trichlorobenzene	102		-		70-130	-		
Hexachlorobutadiene	106		-		50-150	-		

Project Name: FREEMONT LOFT

Lab Number: L1715548

Project Number: 1601.4

Report Date: 05/18/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1715548-01	IA-235	0990	Flow 5	05/03/17	241146		-	-	-	Pass	3.3	3.4	3
L1715548-01	IA-235	1977	6.0L Can	05/03/17	241146	L1712631-03	Pass	-29.2	-7.1	-	-	-	-
L1715548-02	IA-233	0423	Flow 5	05/03/17	241146		-	-	-	Pass	3.0	3.4	13
L1715548-02	IA-233	1676	6.0L Can	05/03/17	241146	L1712631-03	Pass	-29.2	-7.9	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 04/21/17 10:36
Analyst: RY

Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1712631

Project Number: CANISTER QC BAT **Report Date:** 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03 Date Collected: 04/20/17 16:00

Client ID: CAN 1528 SHELF 43 Date Received: 04/21/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:

Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:

Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1712631

Project Number: CANISTER QC BAT **Report Date:** 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03 Date Collected: 04/20/17 16:00

Client ID: CAN 1528 SHELF 43 Date Received: 04/21/17

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/21/17 10:36
Analyst: RY

Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:
Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1712631
Report Date: 05/18/17

Air Canister Certification Results

Lab ID: L1712631-03
Client ID: CAN 1528 SHELF 43
Sample Location:

Date Collected: 04/20/17 16:00
Date Received: 04/21/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	90		60-140

Project Name: FREEMONT LOFT
Project Number: 1601.4

Lab Number: L1715548
Report Date: 05/18/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**

Cooler

N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1715548-01A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	MCP-TO15-SIM(30)
L1715548-02A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	MCP-TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FREEMONT LOFT	**Lab Number:**	L1715548
Project Number:	1601.4	**Report Date:**	05/18/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: Data Usability Report

Project Name:	FREEMONT LOFT	**Lab Number:**	L1715548
Project Number:	1601.4	**Report Date:**	05/18/17

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	FREEMONT LOFT	**Lab Number:**	L1715548
Project Number:	1601.4	**Report Date:**	05/18/17

REFERENCES

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE ____ OF ____

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 5/12/17

ALPHA Job #: L1715548

Client Information

Client: ARCADIA TECHNOLOGY
Address: 1865 BEACON ST
Phone:
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: ~~[illegible]~~ Fremont Loft
Project Location:
Project #: 16014
Project Manager: R. BURNS
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH *(only confirmed if pre-approved!)*
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	(Res) / Comm
MA	MCP	Res

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH ☐ Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
5548-01	IA-235	5/6/17	6:56AM	7:01AM	-29.48	-6.56	AA	VLV		1977	0990	X					
-02	IA-233	5/12	9:06AM	9:05AM	-29.95	-7.87	AA	VLV		0676	0423	X					

ANALYSIS

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
	5/12/17 : 10:15	AR	5/12/17 10:15
VOC	5-12-17 12:18		5/12/17 12:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)

APPENDIX C

Remediation Waste Documentation

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MP5083932155
2. Page 1 of: 1
3. Emergency Response Phone: 800-698-1865
4. Manifest Tracking Number: 016972743 JJK

GENERATOR

5. Generator's Name and Mailing Address
Fremont Loft Condominium Trust c/o Northborough Management
27 South Street #1
Northborough MA 01532
Generator's Phone: 508 393-2155

Generator's Site Address (if different than mailing address)
160 Fremont Street
Worcester MA 01603

6. Transporter 1 Company Name: New England Disposal Technologies, Inc.
U.S. EPA ID Number: MAC300008059

7. Transporter 2 Company Name: New England Disposal Technologies, Inc.
U.S. EPA ID Number: MAC300008059

8. Designated Facility Name and Site Address
Wayne Disposal, Inc.
49350 N. I-94 Service Drive
Belleville MI 48111
Facility's Phone: 800 592-5489
U.S. EPA ID Number: MID048090633

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ NA3077, Hazardous waste, solid, n.o.s. (soil, tetrachloroethylene) 9, PGIII (RQ F001,F002)	3	DM	1200	P	F001	F002	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1)B170030WDI-OTS ERG#171

Job# 01-18936

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X RONALD BURNS
Signature: X
Month: 02 Day: 28 Year: 17

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Shaun M Fad
Signature:
Month: 02 Day: 28 Year: 17

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month: Day: Year:

Land Disposal Restriction & Certification Form

Please check the appropriate facility:

☐ Michigan Disposal Waste Treatment Plant	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 000 724831
☒ Wayne Disposal, Inc. Site #2 Landfill	49350 N. I-94 Service Drive, Belleville, MI 48111	EPA ID # MID 048 090 633
☐ EQ Detroit, Inc.	1923 Frederick Street, Detroit, MI 48211	EPA ID # MID 980 991 566
☐ EQ Resource Recovery, Inc.	36345 Van Born Road, Romulus, MI 48374	EPA ID # MID 060 975 844
☐ EQ North Carolina	1605 Investment Blvd, Apex, NC 27502	EPA ID # NCD 982 170 292
☐ EQ Florida, Inc.	7202 East 8th Ave, Tampa, FL 33619	EPA ID # FLD 981 932 494

Generator Name: FREMONT LOFT Condo TRUST U.S. EPA ID No.: MP5083932155

Generator Address: 160 FREMONT ST WORCESTER MA

State Manifest No.: 01697243 JJK Manifest Doc. No.:

Instructions

Column 1: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.
Column 2: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW).
Column 3: Enter the appropriate Subcategory, if applicable, and also enter "Contaminated Soil" or "Debris" if the waste will be treated using one of the alternative treatment technologies provided by 268.49 (c) – soil, or 268.45 – debris.
Column 4: Enter the letter of the appropriate paragraph from pages 1-2 of this form.
Column 5: For F001 – F005, F039, D001 – D043, Debris and Contaminated Soil: please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the EQ Resource Guide, LDR/UHC Constituent Table.

Manifest Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	Subcategory	How Must the Waste be Managed?	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Soil and Debris wastes.
11A	F001 F002	NWW	NONE	A	—
11B					
11C					
11D					

I hereby certify that all information submitted on this and all associated documents is complete and accurate to the best of my knowledge and information.

Generator Signature: Title:

Printed Name: Date:

How Must the Waste Be Managed?

5. THIS CONTAMINATED SOIL *DOES / DOES NOT* CONTAIN LISTED HAZARDOUS WASTE AND *DOES / DOES NOT* EXHIBIT A (CIRCLE ONE) (CIRCLE ONE)
CHARACTERISTIC OF HAZARDOUS WASTE AND *IS SUBJECT TO / COMPLIES WITH* THE SOIL TREATMENT STANDARDS (CIRCLE ONE)
AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

customer copy

Job # 01-18936
Day & Date Tuesday 2-28-17
Contact Person Ron Burns
Telephone 617-202-6278
Client ARCadia Technology Inc
Billing Address 1865 Beacon ST
Brookline MA 02245
Attn:

NEDT® NEW ENGLAND DISPOSAL TECHNOLOGIES, INC.
www.NEDTINC.com
83 Gilmore Drive • Sutton, MA 01590
Tel: (508) 234-4440 Fax: (508) 234-4441

Start Time Stop Time
Job Location FREMONT LOFT Condo Trust
160 FREMONT ST
WORCESTER MA 01603
Site Contact Person
Phone

LABOR:

NAME	TITLE	ST	OT
	Supervisor		
	Foreman		
	Field Chemist		
S. Ford	Eq. Op.		
	Eq. Op.		
	Eq. Op.		
	Eq. Op.		
	Eq. Op.		
	Field Technician		
	Field Technician		
	Field Technician		
	Field Technician		
	Field Technician		
	Field Technician		
	Field Technician		

DISPOSAL:

FACILITY	QTY./DESC.	MANIFEST #
Wayne	3 x 55 Soil	016972743JJK

JOB DESCRIPTION:

Customer Signature: X Date 2-28-17
NEDT Rep.: Date 2-28-17
Comments:

MATERIAL:

QTY	DESCRIPTION
	Level B PPE
	Level C PPE
	Modified Level D PPE
	Speedi Dry
	Sorbent Pads Bale
	Sorbent Boom Bale
	Flex Hose 4" 6"
	Fill Material

QTY	DESCRIPTION
	Roll Off Liner
	Poly Bags
	Bags Vermiculite
	5 Gallon Pail
	15 Gallon Drum
	30 Gallon Drum
	55 Gallon Drum
	Overpack Drum
	Poly Sheeting

EQUIPMENT:

QTY		Fleet#	HRS.
	Service Trucks		
✓	Chemist Support Van		
	Box Truck with Liftgate		
	Dump Truck		
	Roll Off Truck		
	Roll Off Truck		
	Roll Off Trailer		
	Roll Off Trailer		
	Roll Off Container #		
	Roll Off Container #		
	Roll Off Container #		
	Roll Off Container #		
	Roll Off Container #		
	Vacuum Tank Truck		
	Vacuum Trailer		
	Tractor		
	Vactor		
	Dump Trailer		
	Lowbed Trailer		
	Bobcat		
	Excavator ❑ SM ❑ LG		
	Backhoe		
	Utility Trailer		
	Confined Space Rescue Set		
	Meter ❑ 4 Gas ❑ PID		
	Compressor/Blower		
	Sawzall ❑ Cutoff ❑		
	Generator		
	Pressure Washer		
	Demo Hammer		
	Cascade Air Line System		
	Pumps		
	Emergency Response Trailer		
	Drum Loader		
	Vibrating Compactor		
	Power Broom		
	Miscellaneous Tools & Disposables		
	Police Detail		

APPENDIX D

Public Notifications

March 31, 2017

Mr. David Carlson
7 Canterbury St.
Worcester, MA 01610

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 242
Worcester, Massachusetts 01604

Dear Mr. Carlson:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling is currently planned at the above referenced property for April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling and a Site Plan showing the location of the monitoring will be sent to you within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: David Carlson

2. Street Address: 7 Canterbury St.

City/Town: Worcester Zip Code: 01610

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 242

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

March 31, 2017

Mr. Russell Cournoyer
65 Lake Avenue, Unit 228
Worcester, MA 01604

Re: Notice of Environmental Sampling
160 Fremont Street Unit 102
Worcester, Massachusetts 01604

Dear Mr. Cournoyer:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMAR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling is currently planned at the above referenced property for April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling and a Site Plan showing the location of the monitoring will be sent to you within 30 days of the laboratory report being issued. Publice involvement opportunities are available under 310 CMR 40.1403(9).

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Russell Cournoyer

2. Street Address: 65 Lake Street, Unit 228

City/Town: Worcester Zip Code: 01604

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 102

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

March 31, 2017

Ms. Anna Poulakis
160 Fremont Street, Unit 221
Worcester, MA 01604

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 221
Worcester, Massachusetts 01604

Dear Ms. Poulakis:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling is currently planned at the above referenced property for April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling and a Site Plan showing the location of the monitoring will be sent to you within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Anna Poulakis
2. Street Address: 160 Fremont St., Unit 221

City/Town: Worcester Zip Code: 01604

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 221

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns
Street Address: 1865 Beacon St.
City/Town: Brookline Zip Code: 02445
Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

May 4, 2017

Mr. David Carlson
7 Canterbury St.
Worcester, MA 01610

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 242
Worcester, Massachusetts 01604

Dear Mr. Carlson:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling was conducted at the above referenced property on Thursday April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling is also attached. They have been provided within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

An indoor air sample was collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. The results of the indoor air sampling within your unit have demonstrated that a condition of no substantial hazard exists within your unit. This means that the compound related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form and Laboratory Results

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: David Carlson

2. Street Address: 7 Canterbury St.

City/Town: Worcester Zip Code: 01610

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 242

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collected one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-02
Client ID: IA-242
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 18:26
Analyst: MB

Date Collected: 04/07/17 08:14
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	9.48	1.00	--	22.5	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.075	0.020	--	0.366	0.098	--		1
1,2-Dichloroethane	0.055	0.020	--	0.223	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.208	0.100	--	0.664	0.319	--		1
Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.112	0.020	--	0.602	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.545	0.050	--	2.05	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-02
Client ID: IA-242
Sample Location:
Date Collected: 04/07/17 08:14
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.060	0.020	--	0.407	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.044	0.020	--	0.191	0.087	--		1
p/m-Xylene	0.112	0.040	--	0.486	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.068	0.020	--	0.290	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.043	0.020	--	0.187	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	79		60-140

May 4, 2017

Mr. Russell Cournoyer
65 Lake Avenue, Unit 228
Worcester, MA 01604

Re: Notice of Environmental Sampling Results
160 Fremont Street Unit 102
Worcester, Massachusetts 01604

Dear Mr. Cournoyer:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling was conducted at the above referenced property on Thursday April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling is also attached. They have been provided within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

An indoor air sample was collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. The results of the indoor air sampling within your unit have demonstrated that a condition of no substantial hazard exists within your unit. This means that the compound related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form and Laboratory Results

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Russell Cournoyer

2. Street Address: 65 Lake Street, Unit 228

City/Town: Worcester Zip Code: 01604

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 102

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collected one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-01
Client ID: IA-102
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 17:51
Analyst: MB

Date Collected: 04/07/17 08:02
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	7.92	1.00	--	18.8	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.055	0.020	--	0.269	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.203	0.100	--	0.649	0.319	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.809	0.050	--	3.05	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-01
Client ID: IA-102
Sample Location:
Date Collected: 04/07/17 08:02
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.055	0.020	--	0.239	0.087	--		1
p/m-Xylene	0.151	0.040	--	0.656	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.059	0.020	--	0.251	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.057	0.020	--	0.248	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.056	0.050	--	0.294	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	86		60-140

May 4, 2017

Ms. Anna Poulakis
160 Fremont Street, Unit 221
Worcester, MA 01604

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 221
Worcester, Massachusetts 01604

Dear Ms. Poulakis:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling was conducted at the above referenced property on Thursday April 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the routine operation and maintenance activities being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling is also attached. They have been provided within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

An indoor air sample was collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. The results of the indoor air sampling within your unit have demonstrated that a condition of no substantial hazard exists within your unit. This means that the compound related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form and Laboratory Results

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Anna Poulakis
2. Street Address: 160 Fremont St., Unit 221

City/Town: Worcester Zip Code: 01604

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 221

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collected one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns
Street Address: 1865 Beacon St.
City/Town: Brookline Zip Code: 02445
Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-03
Client ID: IA-221
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 04/10/17 19:01
Analyst: MB

Date Collected: 04/07/17 09:02
Date Received: 04/07/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	6.32	1.00	--	15.0	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	0.587	0.500	--	2.04	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.079	0.020	--	0.386	0.098	--		1
1,2-Dichloroethane	0.024	0.020	--	0.097	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.180	0.100	--	0.575	0.319	--		1
Carbon tetrachloride	0.077	0.020	--	0.484	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.398	0.050	--	1.50	0.188	--		1

Project Name: FREMONT LOFT
Project Number: 16014
Lab Number: L1711018
Report Date: 04/12/17

SAMPLE RESULTS

Lab ID: L1711018-03
Client ID: IA-221
Sample Location:
Date Collected: 04/07/17 09:02
Date Received: 04/07/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.043	0.020	--	0.187	0.087	--		1
p/m-Xylene	0.112	0.040	--	0.486	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.059	0.020	--	0.251	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.042	0.020	--	0.182	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	77		60-140

April 28, 2017

Mr. Hamayon Mujeeb
20 Elizabeth Road.
Hopkinton, MA 01748

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 233
Worcester, Massachusetts 01604

Dear Mr. Mujeeb:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling is currently planned at the above referenced property for May 3, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the post- repair follow-up on of one of the sub-slab depressurization systems (SSD system 8). The sampling event is being performed to ensure that system 8 is operating properly following the repair.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling and a Site Plan showing the location of the monitoring will be sent to you within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Hamayon Mujeeb

2. Street Address: 20 Elizabeth Road

City/Town: Hopkinton Zip Code: 01748

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 233

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

April 28, 2017

Mr. William Stone
11144 Huntington Meadow Lan
Charlotte, NC 28273

Re: Notice of Environmental Sampling
160 Fremont Street, Unit 235
Worcester, Massachusetts 01604

Dear Mr. Stone:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling is currently planned at the above referenced property for May 3, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the post- repair follow-up on of one of the sub-slab depressurization systems (SSD system 8). The sampling event is being performed to ensure that system 8 is operating properly following the repair.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling and a Site Plan showing the location of the monitoring will be sent to you within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: William Stone

2. Street Address: 11144 Huntington Meadow Lane

City/Town: Charlotte Zip Code: 28273

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☐ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☐ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 235

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

June 18, 2017

Mr. Hamayon Mujeeb
20 Elizabeth Road.
Hopkinton, MA 01748

Re: Notice of Environmental Sampling Results
160 Fremont Street Unit 233
Worcester, Massachusetts 01604

Dear Mr. Mujeeb:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling was conducted at the above referenced property on Friday May 12th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the testing following the repair of the sub-slab depressurization system being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling is also attached. They have been provided within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

An indoor air sample was collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. This was done following the repair of SSD system 8 fan unit. The results of the indoor air sampling within your unit have demonstrated that a condition of no substantial hazard exists within your unit. This means that the compounds related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form and Laboratory Results

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: Hamayon Mujeeb

2. Street Address: 20 Elizabeth Road

City/Town: Hopkinton Zip Code: 01748

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 233

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-02
Client ID: IA-233
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 05/18/17 00:17
Analyst: RY

Date Collected: 05/12/17 09:05
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	15.6	1.00	--	37.1	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.722	0.500	--	2.13	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.143	0.020	--	0.698	0.098	--		1
1,2-Dichloroethane	0.050	0.020	--	0.202	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.566	0.100	--	1.81	0.319	--		1
Carbon tetrachloride	0.066	0.020	--	0.415	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.024	0.020	--	0.129	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	1.18	0.050	--	4.45	0.188	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-02
Client ID: IA-233
Sample Location:
Date Collected: 05/12/17 09:05
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.109	0.020	--	0.739	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.131	0.020	--	0.569	0.087	--		1
p/m-Xylene	0.357	0.040	--	1.55	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.141	0.020	--	0.600	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.113	0.020	--	0.491	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.120	0.050	--	0.629	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

June 18, 2017

Mr. William Stone
11144 Huntington Meadow Lan
Charlotte, NC 28273

Re: Notice of Environmental Sampling Results
160 Fremont Street Unit 235
Worcester, Massachusetts 01604

Dear Mr. Stone:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(10) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling was conducted at the above referenced property on Saturday May 6th, 2017.

This sampling is being conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. This sampling event is part of the testing following the repair of the sub-slab depressurization system being performed as part of Immediate Response Actions.

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc. The attached Notice of Environmental Sampling is required by MassDEP. Laboratory results of the indoor air sampling is also attached. They have been provided within 30 days of the laboratory report being issued. Public involvement opportunities are available under 310 CMR 40.1403(9).

An indoor air sample was collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. This was done following the repair of SSD system 8 fan unit. The results of the indoor air sampling within your unit have demonstrated that a condition of no substantial hazard exists within your unit. This means that the compounds related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

Attachments: BWSC 123 Notice of Environmental Sampling Form and Laboratory Results

1865 Beacon St.
Brookline, MA 02445

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

A. The address of the disposal site related to this Notice and Release Tracking Number (provided above):

1. Street Address: 160 Fremont St.

City/Town: Worcester Zip Code: 01604

B. This notice is being provided to the following party:

1. Name: William Stone

2. Street Address: 11144 Huntington Meadow Lane

City/Town: Charlotte Zip Code: 28273

C. This notice is being given to inform its recipient (the party listed in Section B):

☑ 1. That environmental sampling will be/has been conducted at property owned by the recipient of this notice.

☑ 2. Of the results of environmental sampling conducted at property owned by the recipient of this notice.

☑ 3. Check to indicate if the analytical results are attached. (If item 2. above is checked, the analytical results from the environmental sampling must be attached to this notice.)

D. Location of the property where the environmental sampling will be/has been conducted:

1. Street Address: 160 Fremont St., Unit 235

City/Town: Worcester Zip Code: 01604

2. MCP phase of work during which the sampling will be/has been conducted:

☑ Immediate Response Action
☐ Release Abatement Measure
☐ Utility-related Abatement Measure
☐ Phase I Initial Site Investigation
☐ Phase II Comprehensive Site Assessment
☐ Phase III Feasibility Evaluation
☐ Phase IV Remedy Implementation Plan
☐ Phase V/Remedy Operation Status
☐ Post-Temporary Solution Operation, Maintenance and Monitoring
☐ Other _____ (specify)

3. Description of property where sampling will be/has been conducted:

☑ residential ☐ commercial ☐ industrial ☐ school/playground ☐ Other _____ (specify)

4. Description of the sampling locations and types (e.g., soil, groundwater, indoor air, soil gas) to the extent known at the time of this notice.

Collect one 24-hour indoor air sample for laboratory analysis via TO-15

E. Contact information related to the party providing this notice:

Contact Name: Ronald Burns

Street Address: 1865 Beacon St.

City/Town: Brookline Zip Code: 02445

Telephone: (617) 202-6278 Email: rburns@arcadia-tec.com

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC123

This Notice is Related to:
Release Tracking Number

2 - 17651

NOTICE OF ENVIRONMENTAL SAMPLING

As required by 310 CMR 40.1403(10) of the Massachusetts Contingency Plan

MASSACHUSETTS REGULATIONS THAT REQUIRE THIS NOTICE

This notice is being provided pursuant to the Massachusetts Contingency Plan and the notification requirement at 310 CMR 40.1403(10). The Massachusetts Contingency Plan is a state regulation that specifies requirements for parties who are taking actions to address releases of chemicals (oil or hazardous material) to the environment.

THE PERSON(S) PROVIDING THIS NOTICE

This notice has been sent to you by the party who is addressing a release of oil or hazardous material to the environment at the location listed in **Section A** on the reverse side of this form. (The regulations refer to the area where the oil or hazardous material is present as the "disposal site".)

PURPOSE OF THIS NOTICE

When environmental samples are taken as part of an investigation of a release for which a notification to MassDEP has been made under the Massachusetts Contingency Plan (310 CMR 40.0300) on behalf of someone other than the owner of the property, the regulations require that the property owner (listed in **Section B** on the reverse side of this form) be given notice of the environmental sampling. The regulations also require that the property owner subsequently receive the analytical results following the analysis of the environmental samples.

Section C on the reverse side of this form indicates the circumstance under which you are receiving this notice at this time. If you are receiving this notice to inform you of the analytical results following the analysis of the environmental samples, you should also have received, as an attachment, a copy of analytical results. These results should indicate the number and type(s) of samples (e.g., soil, groundwater) analyzed, any chemicals identified, and the measured concentrations of those chemicals.

Section D on the reverse side of this form identifies the property where the environmental sampling will be/has been conducted, provides a description of the sampling locations within the property, and indicates the phase of work under the Massachusetts Contingency Plan regulatory process during which the samples will be/were collected.

FOR MORE INFORMATION

Information about the general process for addressing releases of oil or hazardous material under the Massachusetts Contingency Plan and related public involvement opportunities may be found at http://www.mass.gov/eea/agencies/massdep/cleanup. For more information regarding this notice, you may contact the party listed in **Section E** on the reverse side of this form. Information about the disposal site identified in Section A is also available in files at the Massachusetts Department of Environmental Protection. See http://public.dep.state.ma.us/SearchableSites2/Search.aspx to view site-specific files on-line or http://mass.gov/eea/agencies/massdep/about/contacts/conduct-a-file-review.html if you would like to make an appointment to see these files in person. Please reference the **Release Tracking Number** listed in the upper right hand corner on the reverse side of this form when making file review appointments.

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-01
Client ID: IA-235
Sample Location:
Matrix: Air
Anaytical Method: 101,TO15-SIM
Analytical Date: 05/17/17 23:42
Analyst: RY

Date Collected: 05/06/17 07:01
Date Received: 05/12/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Acetone	13.8	1.00	--	32.8	2.38	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.621	0.500	--	1.83	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	0.486	0.020	--	2.37	0.098	--		1
1,2-Dichloroethane	0.053	0.020	--	0.215	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	0.518	0.100	--	1.65	0.319	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
1,2-Dichloropropane	0.030	0.020	--	0.139	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	0.027	0.020	--	0.145	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	0.959	0.050	--	3.61	0.188	--		1

Project Name: FREEMONT LOFT
Project Number: 1601.4
Lab Number: L1715548
Report Date: 05/18/17

SAMPLE RESULTS

Lab ID: L1715548-01
Client ID: IA-235
Sample Location:
Date Collected: 05/06/17 07:01
Date Received: 05/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air by SIM - Mansfield Lab								
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	0.133	0.020	--	0.578	0.087	--		1
p/m-Xylene	0.265	0.040	--	1.15	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	0.157	0.020	--	0.668	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	0.089	0.020	--	0.387	0.087	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	0.089	0.050	--	0.467	0.262	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	96		60-140

June 19, 2017

Mr. Michael Hirsh, Medical Director
Worcester Health Department
25 Meade Street
Worcester, MA 01610

Re: Notice of Environmental Sampling
160 Fremont Street Units: 102, 221, 233, 235 and 242
Worcester, Massachusetts 01604

Dear Mr. Hirsh:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(3) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling has been conducted at the above referenced property on April 7, May 5 and May 12, 2017.

This sampling was conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. The sampling of units 102, 221 and 242 is an annual sampling event that is part of routine operation and maintenance activities being performed as part of Immediate Response Actions. The sampling of units 233 and 235 was performed after a repair of the sub-slab depressurization system.

The indoor air samples were collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. The results of the indoor air sampling within all units tested have demonstrated that a condition of no substantial hazard exists within all units. This means that the compounds related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

cc: Mayor's Office, Worcester City Hall

1865 Beacon St.
Brookline, MA 02445

June 19, 2017

Mayor Joseph M. Petty
Worcester City Hall
455 Main Street
Worcester, MA 01608

Re: Notice of Environmental Sampling
160 Fremont Street Units: 102, 221, 233, 235 and 242
Worcester, Massachusetts 01604

Dear Mr. Petty:

Arcadia Technology, Inc. is writing to notify you, in accordance with 310 CMR 40.1403(3) of the Massachusetts Contingency Plan (MCP), that environmental indoor air sampling has been conducted at the above referenced property on April 7, May 5 and May 12, 2017.

This sampling was conducted as part of Immediate Response Actions to address the release identified as Massachusetts Department of Environment Protection (MassDEP) Release Tracking Number (RTN) 2-18748, 2-17651 and 2-15725 located at 160 Fremont Street in Worcester, Massachusetts. The sampling of units 102, 221 and 242 is an annual sampling event that is part of routine operation and maintenance activities being performed as part of Immediate Response Actions. The sampling of units 233 and 235 was performed after a repair of the sub-slab depressurization system.

The indoor air samples were collected and analyzed to confirm that the sub-slab depressurization (SSD) system is adequately preventing potentially harmful vapor from migrating into the residential units. The results of the indoor air sampling within all units tested have demonstrated that a condition of no substantial hazard exists within all units. This means that the compounds related to the Release have been reduced to concentrations which do not pose a significant risk of harm to health, safety, public welfare or the environment

A copy of reports documenting remedial activities and conditions at the Site are available for review online at http://public.dep.state.ma.us/SearchableSites2/Search.aspx or by contacting Arcadia Technology, Inc.

Sincerely,
Arcadia Technology, Inc.

Ronald Burns, LSP
Principal Engineer

cc: Medical Director, Worcester Health Department

1865 Beacon St.
Brookline, MA 02445

APPENDIX E

Statement of Limitations

STATEMENT OF LIMITATIONS

The report will be for the sole use of the Client – Responsible Party, current owner of the property and prospective owner of the property and endorsed financial companies. Any reuse or reliance on this report by third parties is prohibited and shall only be done with the prior written consent of Arcadia Technology, Inc. (ARCADIA).

Reasonable care will be exercised in locating underground structures in the vicinity of proposed subsurface explorations. This will include contact with the local agency coordinating subsurface utility information and a review of plans provided by you or your representatives for the site to be investigated. ARCADIA will not be liable for any damages due to unmarked or improperly marked utilities.

ARCADIA represents that ARCADIA conducted its assessment of the site and prepared the report in accordance with the professional and industry standards prevailing at the time such services were rendered. The observations described in this report were made under the conditions and dates stated herein. The conclusions presented in the report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the scope of services or the time and budgetary constraints imposed by. The work described in this report was carried out in accordance with the Terms & Conditions of Engagement.

In preparing this report, ARCADIA has relied on certain information provided by federal, state, local government officials and their files as well as other parties referenced herein available to ARCADIA at the time of the investigation. ARCADIA did not attempt to independently verify the accuracy or completeness of all information received during the course of this project. ARCADIA is not responsible for the accuracy of information provided by others.

In the event that another consultant, regulatory agency, bank counsel or title examiner for Client obtains information on environmental or hazardous waste issues at the site not contained in this report, such information should be brought to the attention of ARCADIA forthwith. ARCADIA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

Observations were made of the site and of structures on the site only on those dates as indicated within this report. Where access to portions of the site was unavailable or limited, ARCADIA renders no opinion as to the presence of hazardous material or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the site.

The conclusions contained in this report are based in part upon the data obtained from a limited number of soil and/or groundwater samples obtained from the site. The nature and extent of variations between these samples may not become evident without further exploration. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the conclusions of this report. Where quantitative laboratory testing was performed as part of the site assessment, such analyses have been conducted by an independent laboratory. ARCADIA has relied upon the data provided. Chemical analyses have been performed for specific parameters during the course of this investigation, as described in the text. However, additional chemical constituents not searched for during the current study may be present in soil and/or groundwater at the site.

The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors.

The data presented in the report and our opinions based on this data are provided in accordance with our Proposal for Professional Services, which is incorporated by reference. The services were performed in a manner consistent with that degree of skill and care ordinarily exercised by practicing design professionals performing similar services in the same locality, at the same site and under the same or similar circumstances and conditions.

No warranty is expressed or implied regarding the potential for additional work to be required regarding Regulatory (DEP or EPA) additional assessment, remediation, requirements or recommendations of any regulatory Audit Findings, Notices of Noncompliance, Administrative Consent Orders or any other regulator agency requirements or recommendations. ARCADIA is not responsible to meet any Regulatory Deadlines, Regulatory Compliance Fees, or delayed or late Regulatory submittals that generate supplementary compliance fees.

Client agrees to pay ARCADIA costs (including reasonable attorney's fees) for defending ARCADIA against any claims that a third party or a regulatory agency asserts against ARCADIA related to the Services that were provided to Client. Claims include legal actions by a third party or a regulatory agency that are based upon the discoveries, findings or conclusions disclosed in documents or reports supplied to Client by ARCADIA.