



**CONSTRUCTION COMPLETION REPORT – PART B**

for

**FORMER ZOE CHEMICAL SITE**

**1801 Falmouth Avenue  
New Hyde Park, New York  
NYSDEC Site # 1-30-211**

**March 2017  
Revised June 2017**

**Prepared for:**

**SEABOARD ESTATES, INC.  
c/o BEVERIDGE & DIAMOND, LLC  
477 Madison Avenue, 15<sup>th</sup> Floor  
New York, NY 10022-5802**

and

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12207**

**Prepared by:**

**KORLIPARA ENGINEERING  
150 Broadhollow Road  
Suite PH7  
Melville, NY 11747**

and

**CA RICH CONSULTANTS, INC.  
17 Dupont Street  
Plainview, NY 11803**



March 2, 2017  
Revised June 22, 2017

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
DIVISION OF ENVIRONMENTAL REMEDIATION  
625 Broadway, 12<sup>th</sup> Floor  
Albany, New York 12207

Attention: Brian Jankauskas, Project Manager

Re: **CONSTRUCTION COMPLETION REPORT – PART B**  
**Former Zoe Chemical Site**  
**1801 Falmouth Avenue, New Hyde Park, N.Y.**  
**NYSDEC Site No.: 1-30-211**

Dear Mr. Jankauskas:

On behalf of Seaboard Estates, Inc., Korlipara Engineering and CA RICH Consultants, Inc. we are pleased to submit the attached Construction Completion Report – Part B for the above-referenced property.

Sincerely,

**CA RICH Consultants, Inc.**

A handwritten signature in black ink that reads 'Jessica Proscia'.

Jessica Proscia, EP  
Project Manager

**Korlipara Engineering**

A handwritten signature in black ink that reads 'Ravi Korlipara'.

Ravi Korlipara, P.E.  
Senior Engineer

cc: see attached distribution

Distribution List

1801 Falmouth Avenue, New Hyde Park, NY - NYSDEC Site #1-30-211

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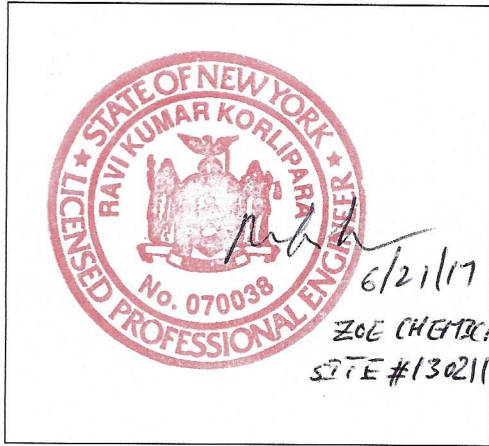
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**Nassau County Department of Health**  
[jdefranco@health.co.nassau.ny.us](mailto:jdefranco@health.co.nassau.ny.us)

# CERTIFICATION

I, Ravi Korlipara, certify that I am currently a NYS Registered Professional Engineer as defined by 6 NYCRR Part 375, and I certify that the Construction Completion Report – Part B was implemented and that all construction activities were completed in substantial conformance with the DER-approved IRM Work Plan.

<u>070038</u>	<u>6/21/17</u>	<u><i>R. Korlipara</i></u>
NYS Professional Engineer #	Date	Signature





## CONSTRUCTION COMPLETION REPORT – PART B

Former Zoe Chemical Site  
1801 Falmouth Avenue  
New Hyde Park, NY  
NYSDEC Site # 1-30-211

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**CONSTRUCTION COMPLETION REPORT – PART B  
FORMER ZOE CHEMICAL SITE**

**1801 Falmouth Avenue  
New Hyde Park, New York  
NYSDEC Site # 1-30-211**

**1.0 INTRODUCTION**

CA RICH Consultants, Inc. (CA RICH) is pleased to present this Construction Completion Report– Part B for the Former Zoe Chemical Site located in New Hyde Park, NY (the Site).

This report was prepared in accordance with our approved Interim Remedial Measures (IRM) Work Plan dated January 13, 2015 (Ref. 1) and the Construction Completion Report – Part A dated February 26, 2016 (Ref. 2). This Part B Report includes: as-built drawings for the Soil Vapor Extraction (SVE) system; start-up data for the system; a monitoring and reporting schedule for the system; operation and maintenance procedures for the equipment; and criteria to terminate the operation of the equipment. A Site Plan is attached as Figure 1.

**2.0 REMEDIAL ACTION OBJECTIVES**

The Remedial Action Objectives (RAOs) for this Report were to develop an SVE system capable of removing the remaining soil vapor contamination, as well as be protective of public health and the environment. This was achieved by applying a vacuum below the slab of the building in specific locations and beneath the exterior parking lot. The SVE system will prevent any residual subsurface 1,1,1-trichloroethane (TCA) vapors (from the operation of the former use of the Site) from entering the existing structure. Currently, the influent air of the SVE system is being treated using two in-line “vapor-phase” carbon canisters. As the operation of the system continues and the concentrations of TCA and its degradation products in the untreated soil vapor decrease to concentrations below NYSDEC and NYSDOH emission guidance, the system will be operated without carbon treatment.

### 3.0 REMEDIAL PROGRAM ELEMENTS

#### 3.1 Contractors and Consultants

Contractors and Consultants involved with this project are listed below:

<u>Contractor/Consultant Name</u>	<u>Responsibility</u>
Ravi Korlipara, P.E.	Project Engineer
CA RICH Consultants, Inc.	Environmental Consultant
Aarco Environmental Services Corp.	Drilling Contractor
Allied Roofing	Roofer
Enviro Trac LTD	System Technical Support
Aarco Environmental Services Corp.	Trenching Contractor
Recine Electric	Electrician

#### 3.2 Site Preparation

Because the Site is developed with a building and a parking lot, no physical Site preparation was necessary. A pre-construction meeting was held with Site contractors and the Site owner on June 16, 2016. NYSDEC was not present at the meeting. The purpose of the meeting was to familiarize the contractors and the existing building tenants with the logistics of the project and the locations for the installation of the below-ground and above-ground components of the SVE system.

### 4.0 SOIL VAPOR EXTRACTION SYSTEM

#### 4.1 Description of Remedy

The remedy includes an SVE system that incorporates the three sub-slab vents installed inside the building for the pilot test, which were converted into permanent sub-slab depressurization vents. Four-inch diameter PVC ducts were extended and connected above the roof of the existing structure. These were, in turn, connected to four-inch diameter “capped” risers. Additionally, three, 2-inch SVE wells were also installed in the Site’s parking lot. These wells were horizontally connected with subsurface PVC piping which enter the Site building through the eastern exterior wall where the SVE system is located. All SVE vents and wells are connected to a moisture knock drum and then to an Airtech® Vacuum 4.62 HP regenerative blower. The extracted soil vapor is then passed through two 88-gallon vapor-phase-carbon drums. The treated vapor is then connected to a four-inch pipe that extends through the roof to a height of six

feet above the roof line. The blower is connected to an electric panel and sub-meter. Site Photographs are attached as Appendix A.

## **4.2 Summary of Construction Activities**

### **1) Installation of the SVE System**

The sub-slab SVE system was designed to address the shallow-soil vapors below the warehouse floor. A core drill was used to penetrate the concrete floor. A hole was then advanced using a hand auger until the final depth required for the vent was achieved. The vents are constructed of 4-inch diameter PVC pipe with slotted screens, an open bottom, and surrounded with pea gravel. The vents extend approximately one foot below the bottom of the slab and are sealed into the floor with concrete as shown on Figure 2.

SVE wells were installed in order to further address any residual contamination from the removal of the former septic system in the parking lot. All SVE wells were installed to a depth of 15-feet below grade (shown on Figure 3). Each SVE well was finished with a 23-inch diameter flush-mounted manhole cover. Once the installation of the three SVE wells was completed, a trench was dug to install piping in order to both horizontally connect the SVE wells to each other underground as well as connect the wells to the SVE system located inside the building. The horizontal piping is constructed of 2-inch solid PVC pipe. Based on the current use of the Site as an active lumber yard, the 2-inch horizontal piping was placed inside a 4-inch PVC pipe to create a protective sleeve. The location of the SVE vents and wells, as well as the subsurface trenching is shown on Figure 4.

### **2) Installation of PVC Risers**

On August 17, 2016, three 4-inch diameter PVC pipes were installed to extend up to the roof after being connected to each of the vents installed in the floor of the warehouse. The riser vents were then connected to a manifold above the roof. A 4-inch riser was placed in the center of the manifold and extended six feet above the pitch pocket and capped for future use.

### **3) Installation of Moisture Knock-Out Drum, Blower and Carbon Drums**

On August 19, 2016, a moisture knock-out drum, Airtech® Vacuum 4.62 HP regenerative blower and two 55-gallon-carbon drums were installed inside an enclosed room in the Site's warehouse. The moisture knock-out drum was connected to the four-inch diameter PVC vent on the roof. The moisture knock-out drum was then connected to the blower, which was, in turn connected to the carbon drums. The carbon drums were then connected to a four-inch diameter PVC vent that extends above the roof. A schematic of the system layout on the roof is included on Figure 5.

**4.3 System Start-Up**

A start-up test of the SVE system was conducted on September 21, 2016. Temporary vacuum points were drilled into the floor approximately 15 feet and 50 feet from each of the permanent interior vents. Once the blower was turned on, vacuum readings were measured at the three interior SVE vents, the temporary vacuum points, and the three SVE wells with a hand held digital manometer. The blower remained on with a vacuum reading of approximately -36 to -40 inches of water. The results of the start-up test are presented below and on Figure 6. The radius of influence measured during the start-up test was in general agreement with the results of the pilot test that was conducted on June 29, 2015. Sub-slab sample results from the 2013 Site Characterization Report are included in Figure 4 to confirm that the vacuum extends beyond the locations where contamination was detected warranting remediation/mitigation.

Upon system start-up, a baseline reading of total volatile organic compounds (VOCs) in the raw system influent (prior to carbon treatment) from the blower was taken with a PID (Minirae 3000). A PID reading of 2.9 ppm was recorded. In addition, an influent air sample was collected in a SUMMA canister for laboratory analysis, which exhibited a concentration of 87,800 ug/m<sup>3</sup> for TCA. The flow rates in standard cubic feet per minute (scfm) and vacuum (inches of water) applied to the SVE vents and wells during the start-up test are presented below.

**September 2016**

<u>Vent/Well</u>	<u>Vacuum (inches of water)</u>	<u>Flow (scfm)</u>
SVE-1	-2.9	No port to gauge
SVE-2	-2.6	No port to gauge
SVE-3	-2.5	No port to gauge
SSD-4	-3.2	32
SSD-5	-3.1	70.06
SSD-6	-3.0	65.37

**May 2017**

<u>Vent/Well</u>	<u>Vacuum (inches of water)</u>	<u>Flow (scfm)</u>
SVE-1	-2.51	47
SVE-2	-0.008	2.15
SVE-3	-0.066	2.20
SSD-4	-4.0	16.0
SSD-5	-3.9	46.0
SSD-6	-3.9	43.0

## 5.0 SVE MONITORING AND TERMINATION CRITERIA

The Site has been visited weekly with no issues encountered since the system start-up for the first eight months. No moisture has accumulated since its start-up. Additionally, system samples have been obtained on a monthly basis and analyzed for VOCs via TO-15.

The Site will continue to be visited weekly in order to confirm that the system is still operating. Weekly Site visits will only be suspended if a telemetry unit is installed in order for CA RICH to be notified if the system is unexpectedly shut down. However, the system sampling will be now performed on a quarterly basis. During each quarterly visit, the moisture knockout drum will be drained (if necessary) and a PID will be used to check the VOCs before the carbon units, between the two carbon units and after the carbon units. Additionally, a field form will also be filled out during these Site visits. This will include the system status, time recorded on the control panel, vacuum, airflow, and PID results. SUMMA canisters will continue to be used to collect samples of the untreated and treated soil vapor for laboratory analysis on a quarterly basis. These results will be submitted to the NYSDEC in the monthly progress reports. The system does not require any periodic maintenance, with the exception of a filter element based on the blower vacuum levels. Literature for the Airtech® Vacuum regenerative blower, the associated replacement filter element, and the moisture knockout drum are included as Appendix B.

As discussed in Section 4.3, an initial “base line” soil vapor sample was collected of the untreated (raw) vapor streams using SUMMA canisters in September 2016, during the system start-up. In addition, influent (obtained before carbon drums) and effluent (obtained after carbon drums) samples were collected in October, November, December 2016, January, February, March, April and May 2017. Selected results of the nine rounds of raw influent testing as well as the flow and mass removed from the subsurface are presented below (laboratory results are included in Appendix C):

Former Zoe Chemical Site  
Construction Completion Report – Part B

**TCA Concentration (ug/m<sup>3</sup>)**

<b>Month</b>	<b>Influent Results</b>	<b>Effluent Results</b>	<b>Influent Flow (scfm)</b>	<b>Mass Removed (lbs)</b>
September 2016	87,800	No sample obtained	220	15.63
October 2016	23,500	Not detected	156	10.22
November 2016	10,400	117	156	4.38
December 2016	8,350	Not detected	156	3.63
January 2017	6,380	5.38	156	2.77
February 2017	2,500	5,320	156	0.98
March 2017	4,190	1,740	156	1.82
April 2017	2,610	Not detected	156	1.09
May 2017	1,940	Not detected	156	0.84

Based on the concentrations identified in the effluent air, carbon change outs were performed for the two carbon drums on December 1, 2016 and April 14, 2017. Carbon drum change outs will continue to be performed when necessary.

The following termination criteria will be employed.

- Once the levels of total VOCs in the raw influent decreases to a near constant or asymptotic concentration (as approved by NYSDEC) and it is demonstrated that shutdown of the system will not result in the migration of unacceptable concentrations of residual vapors to the on-site and off-site structures (as approved by NYSDOH), operation of the system will be suspended.
- A shutdown plan will be submitted to the NYSDEC for review and approval. This plan will discuss the conversion of the system to a soil vapor intrusion mitigation system or proposed sampling activities for complete shutdown of the system. The plan will include concurrent sub-slab vapor/indoor air sampling within occupied spaces to determine whether exposure concerns related to soil vapor intrusion remain.
- The overall remedy must meet the remedial action objectives of the project, and the soil vapor measurements must remain protective of the contemplated use of the on-site and off-site structures. If any improvements or changes are made to the interior building layout in areas outside of the SVE system's radius of influence, additional soil vapor intrusion sampling and/or expansion of the SVE system may be warranted. The NYSDEC and NYSDOH will be notified in advance of any such plans.

**Former Zoe Chemical Site  
Construction Completion Report – Part B**

**6.0 REFERENCES**

1. CA RICH Consultants, Inc., Interim Remedial Measures Work Plan, Former Zoe Chemical, 1801 Falmouth Ave., New Hyde Park, NY, January 2015.
2. CA RICH Consultants, Inc., Construction Completion Report – Part A, Former Zoe Chemical, 1801 Falmouth Ave., New Hyde Park, NY, February 2016.



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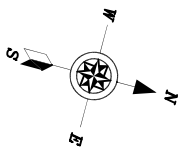
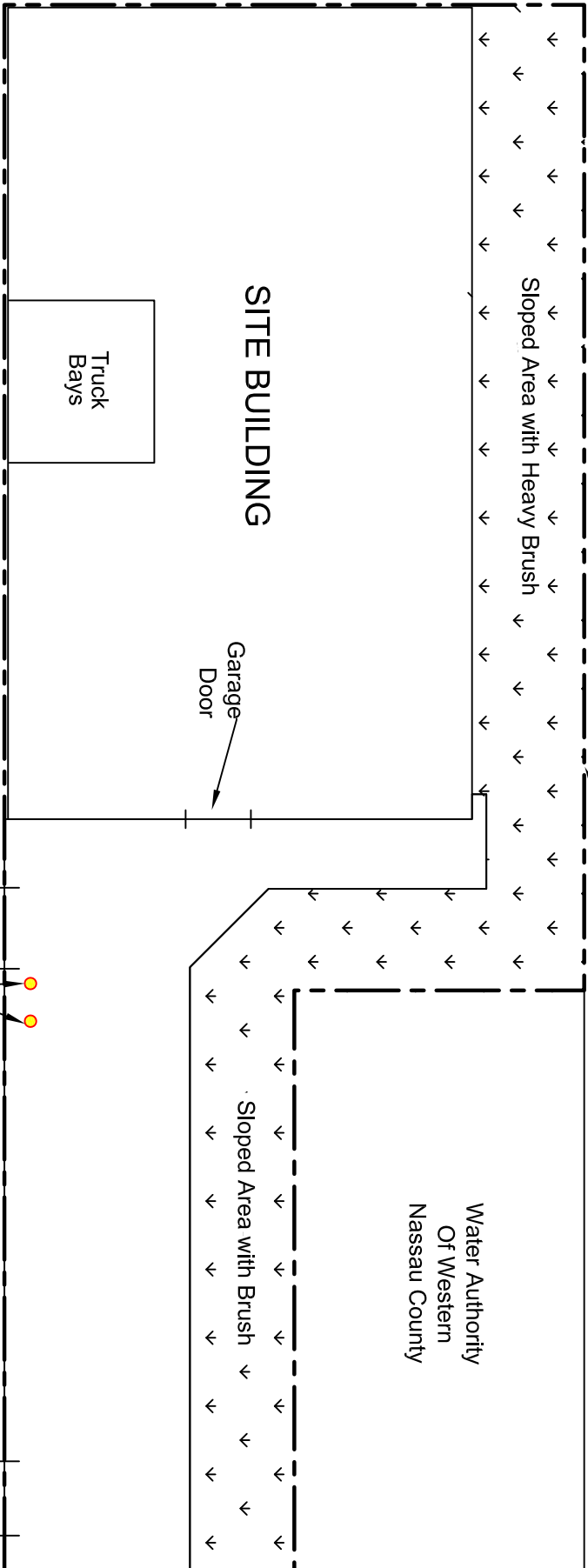
# FIGURES

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Evergreen Avenue

Approximate Property Boundary

Gould Street



Falmouth Avenue

SITE BUILDING

Truck Bays

Garage Door

Water Authority  
Of Western  
Nassau County

Sloped Area with Brush

Gate  
Former  
Cesspools

Gate

**CA RICH CONSULTANTS, INC.**

Environmental Specialists Since 1982  
17 Dupont Street, Plainview, New York 11803

TITLE:

Site Plan

DATE:

8/26/2015

SCALE:

As Shown

FIGURE:

1

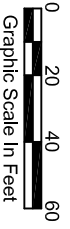
Former Zoe Chemical Site  
1801 Falmouth Avenue  
New Hyde Park, NY

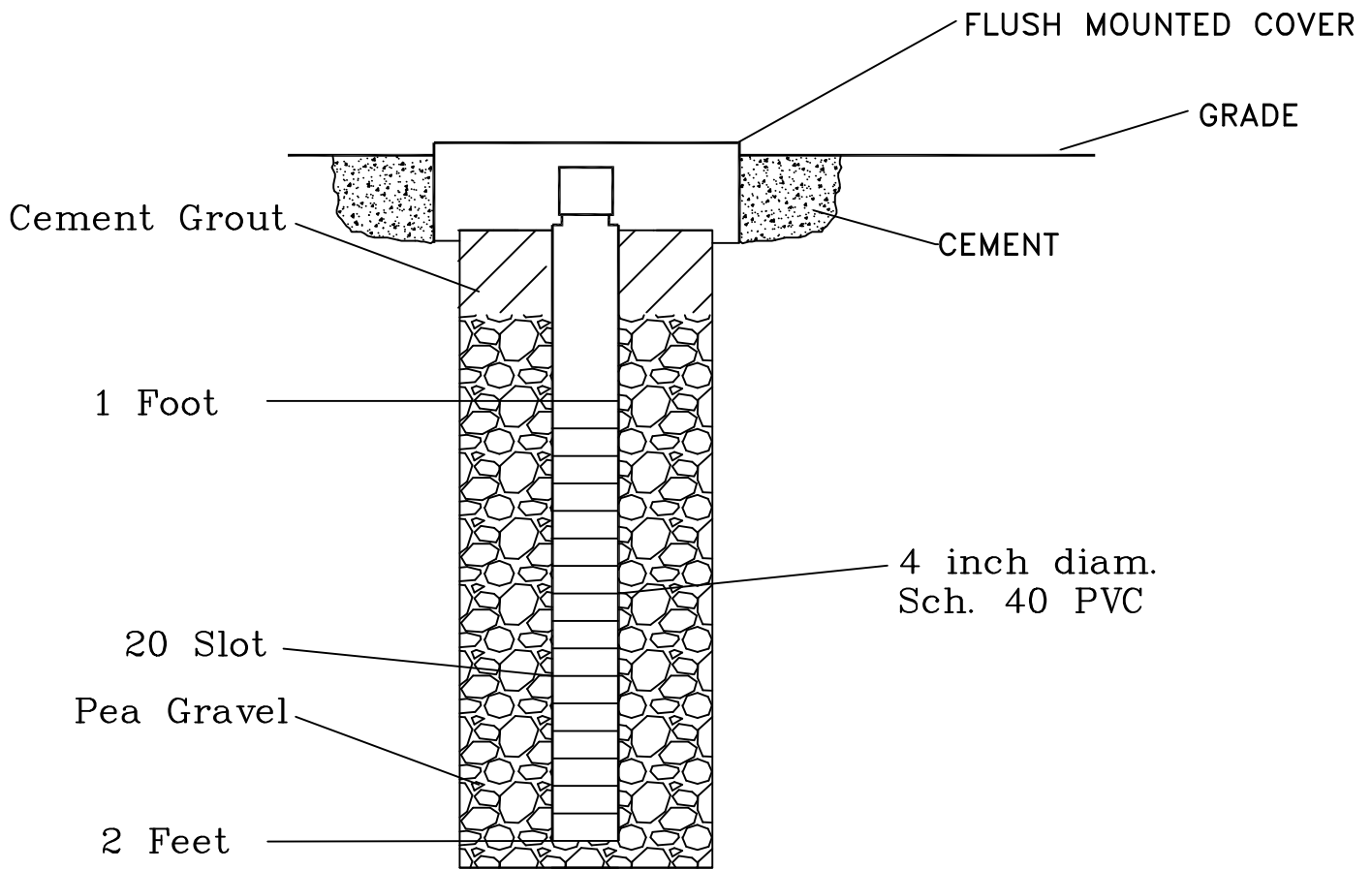
DRAWN BY:

J.T.C./T.R.B.

APPR. BY:

J.E.P.





**LEGEND**



Pea Gravel

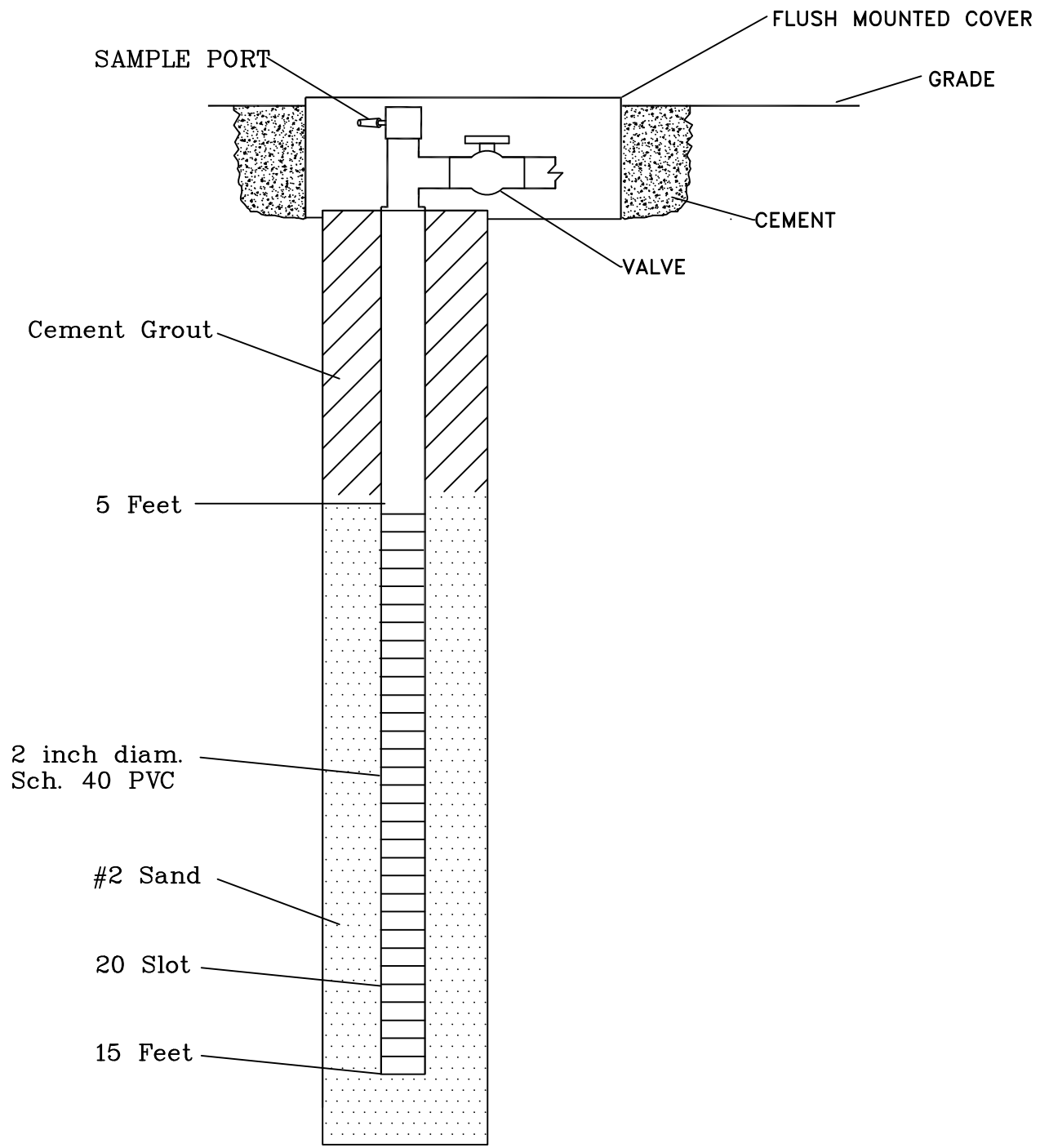


Cement Grout

**Korlipara Engineering**

150 Broad Hollow Road  
Mellville, NY 11747

TITLE: Interior Sub-Slab Vent Profile		DATE: 1/24/2017
FIGURE: 2		SCALE: NTS
DRAWING NO: 2015-5	DRAWN BY: T.R.B.	
Former Zoe Chemical Site 1801 Falmouth Avenue New Hyde Park, NY		APPR. BY: J.E.P.



**LEGEND**



Cement Grout



#2 Sand

**Korlipara Engineering**

150 Broad Hollow Road  
Mellville, NY 11747

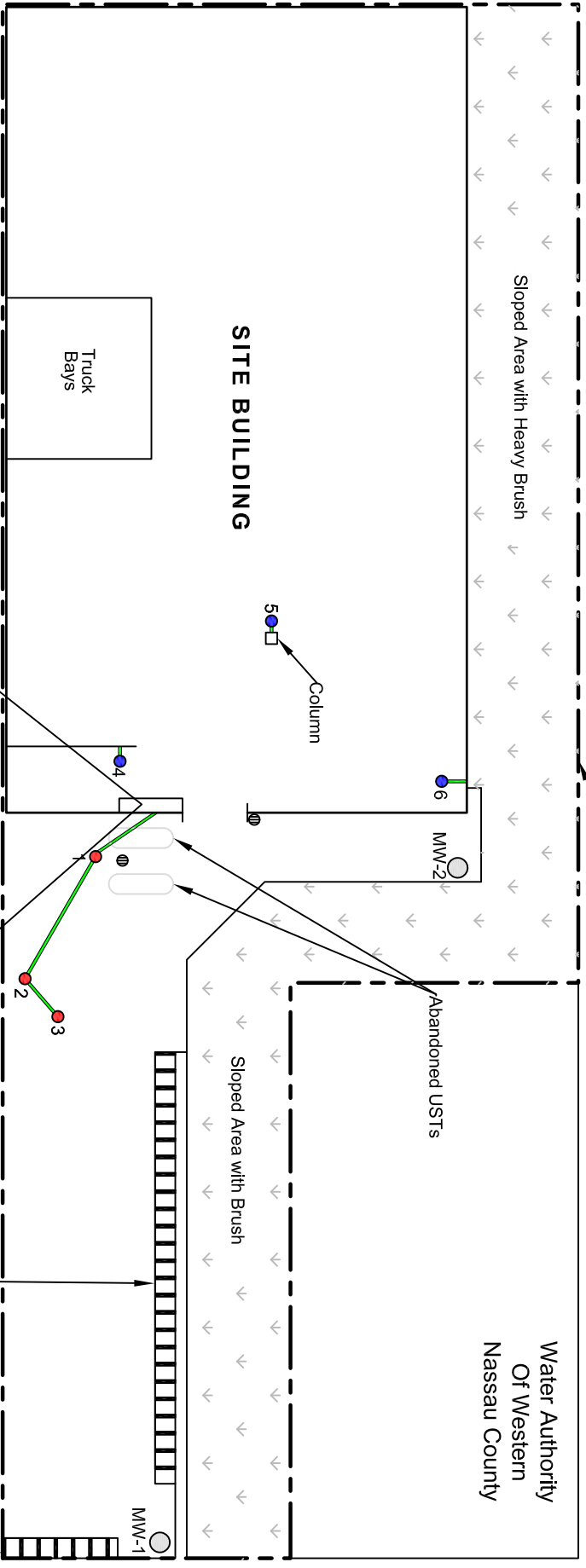
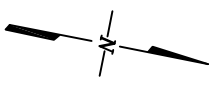
TITLE: Exterior SVE Well Profile		DATE: 1/24/2017
FIGURE: 3		SCALE: NTS
DRAWING NO: 2014-4	DRAWN BY: T.R.B.	
Former Zoe Chemical Site 1801 Falmouth Avenue New Hyde Park, NY		APPR. BY: R.K.K.

Gould Street

Evergreen Avenue

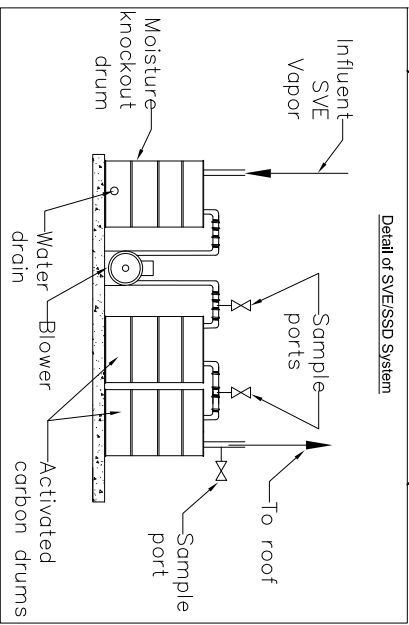
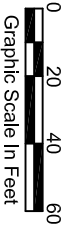
Approximate Property Boundary

Water Authority  
Of Western  
Nassau County

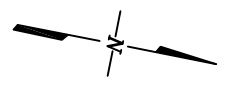
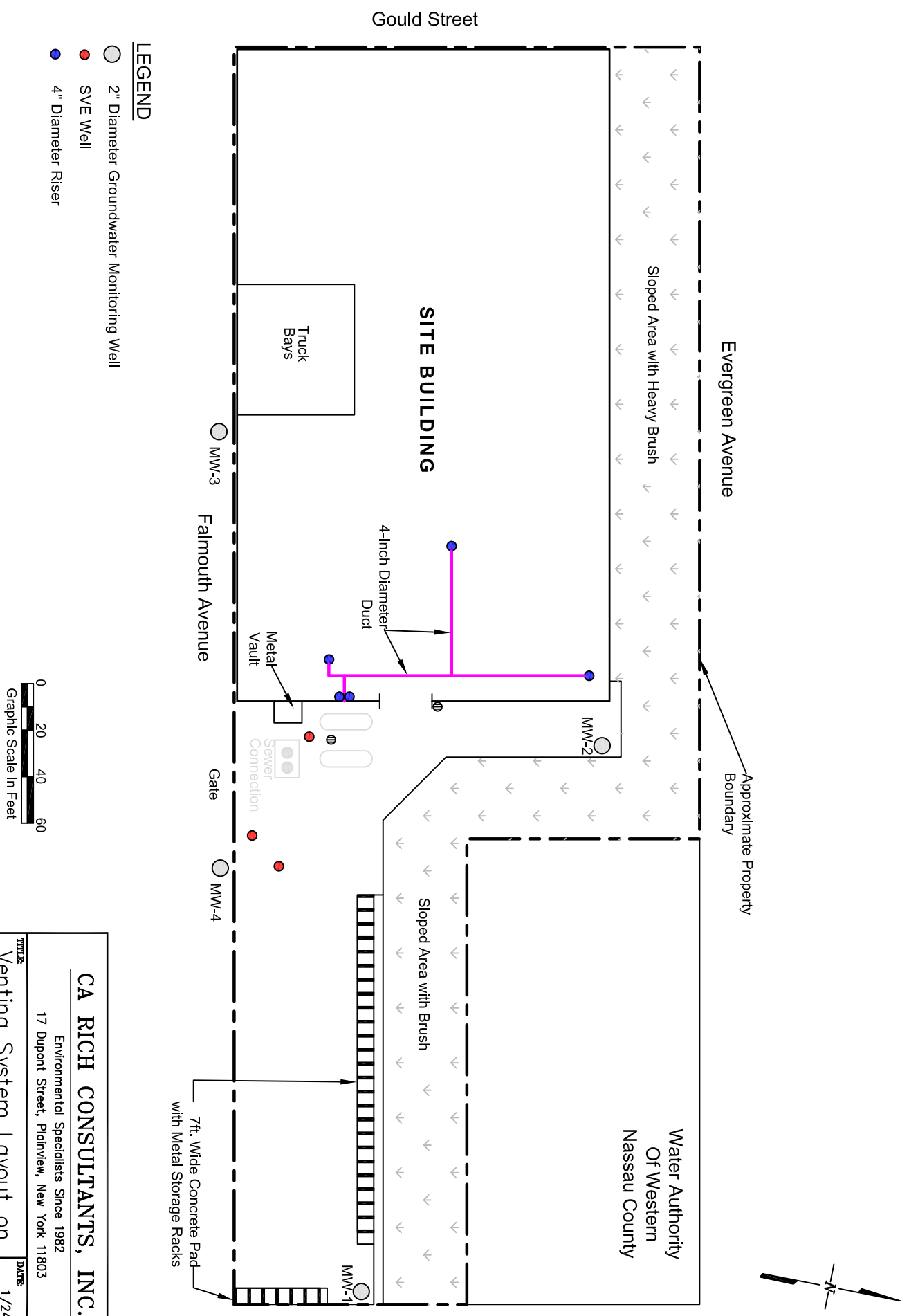


**LEGEND**

- 2" Diameter Groundwater Monitoring Well
- SVE Well
- Sub-slab Vent
- System Trenching

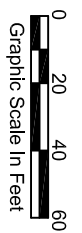


<p><b>CA RICH CONSULTANTS, INC.</b> Environmental Specialists Since 1982 17 Dupont Street, Plainview, New York 11803</p>		<p><b>DATE:</b> 3/1/2017</p>	
<p><b>TITLE:</b> SVE Well/Vent Locations</p>		<p><b>SCALE:</b> As Shown</p>	
<p><b>FIGURES:</b> 4</p>	<p><b>DRAWN BY:</b> J.T.C./T.R.B.</p>	<p><b>APPR. BY:</b> R.J.L.</p>	
<p><b>DRAWING NO.:</b> 2017-1</p>	<p>Former Zoe Chemical Site 1801 Falmouth Avenue New Hyde Park, NY</p>		



**LEGEND**

- 2" Diameter Groundwater Monitoring Well
- SVE Well
- 4" Diameter Riser

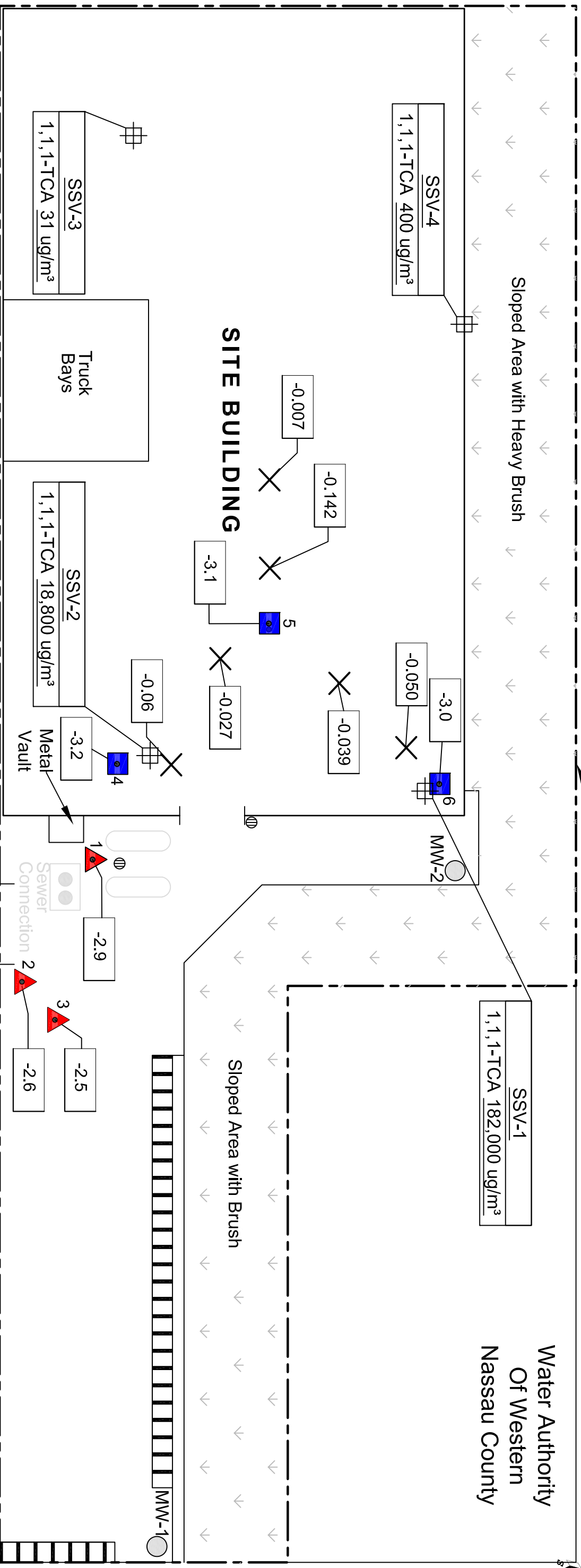
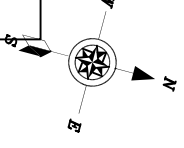


<b>CA RICH CONSULTANTS, INC.</b>		Environmental Specialists Since 1982 17 Dupont Street, Plainview, New York 11803	
<b>VENTING SYSTEM LAYOUT ON THE ROOF</b>			
<b>FIGURE</b> 5		Former Zoe Chemical Site 1801 Falmouth Avenue New Hyde Park, NY	
<b>DRAWING NO.</b> 2017-2		<b>DRAWN BY:</b> J.T.C./T.R.B.	
		<b>DATE:</b> 1/24/2017	
		<b>SCALE:</b> As Shown	
		<b>APPR. BY:</b> R.J.II.	

Evergreen Avenue

Approximate Property Boundary

Water Authority  
Of Western  
Nassau County



Gould Street

**LEGEND**

- 2" Groundwater Monitoring Well
- ▲ SVE Well
- Sub-slab Vent
- ✕ Temporary Vacuum Monitoring Point

-0.007  
Measured Vacuum Recorded  
in Inches of Water

SSV-3	1,1,1-TCA 31 ug/m³
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Concentration of 1,1,1-Tetrachloroethane in  
Sub-Slab Vapor Samples from September 2013  
Site Characterization Report

Date: 9/21/2016

Start Time: 9:39

Blower Make and Model: Airtech vacuum regenerative blower

Vacuum at Blower: -36 inches of water

PID at Start-Up Influent: 2.9 ppm

PID at Start-Up Mid Carbon: 0.0 ppm

PID at Start-Up Exhaust: 0.0 ppm

Summa Canister Influent Sample Time: 9:39

Flow SSD-4: 32 SCFM

Flow SSD-5: 70.06 SCFM

Flow SSD-6: 65.37 SCFM



**Korlipara Engineering**

150 Brood Hollow Road  
Melville, NY 11747

Results of Start-up  
Test

TITLE:	Results of Start-up Test	DATE:	6/12/2017
Figure:	6	SCALE:	AS SHOWN
DRAWING NO:	2017-3	DRAWN BY:	J.T.C./T.R.B.
		APPR. BY:	R.K.K.
			Former Zoe Chemical Site 1801 Falmouth Avenue New Hyde Park, NY

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# **APPENDIX A**

## **Selected Site Photographs**

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View of SSD-5 trenching.



View of completed SSD-4 trenching.



View of interior duct.



Interior view of SVE well inside 24-inch manhole.





View of interior ducts.



View of exterior risers.



View of system.



View of system.





View of exterior trenching.



View of exterior trenching.



View of exterior trenching.



View of completed exterior trenching.





View of roof riser.



View of pitch pocket for roof riser.



View of venting system layout on the roof.



View of roof riser.





View of venting system layout on the roof.



View of venting system layout on the roof.



View of venting system layout on the roof.

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# **APPENDIX B**

## **Vendors Literature**

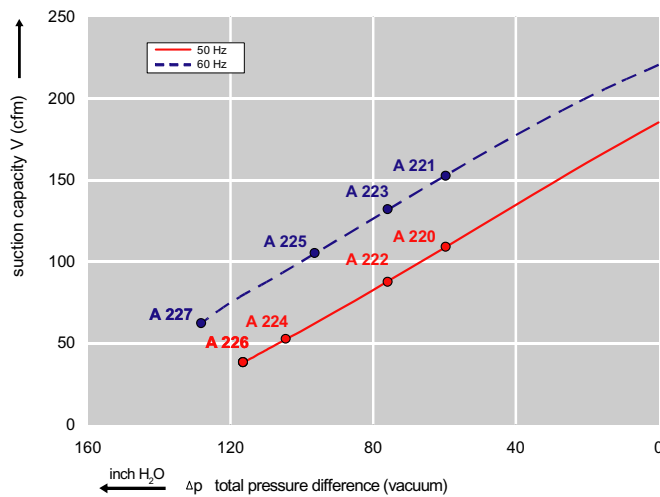
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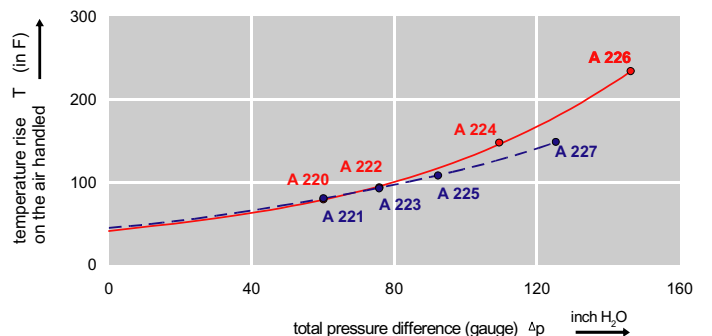
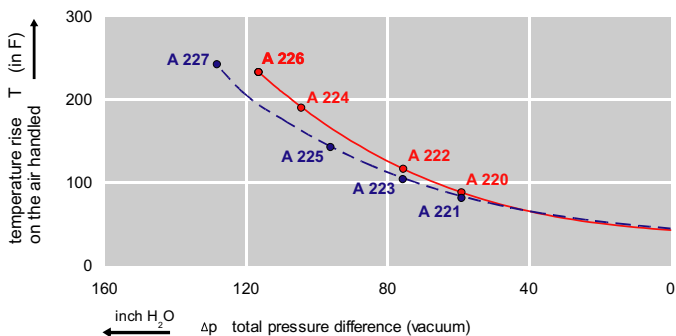
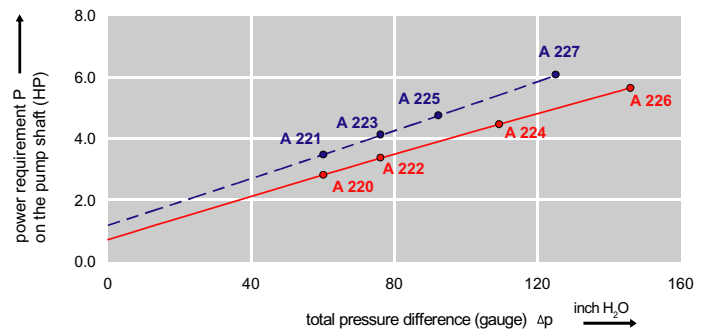
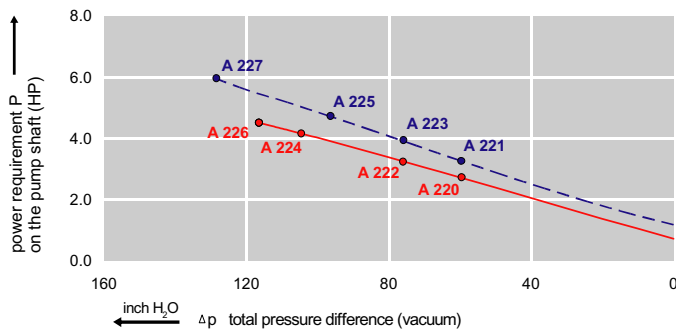
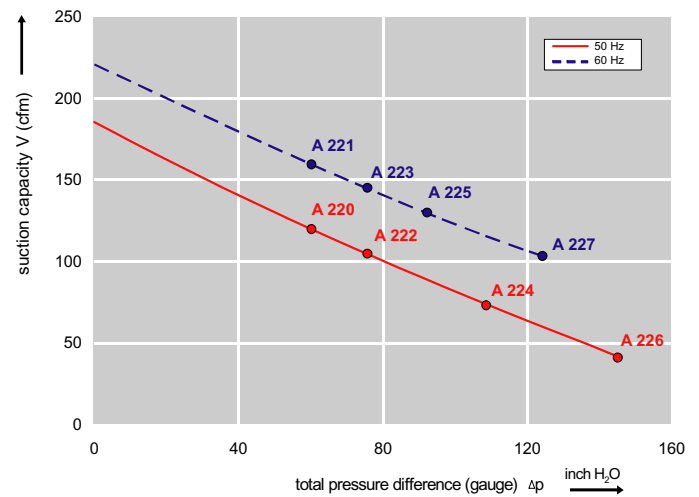
### Features:

- Cooler running, outboard bearing provides maintenance-free operation
- Environmentally friendly oil-free technology
- Extremely quiet operation
- All motors are standard TEFC with Class F insulation, UL recognized, CE Compliant  
*Explosion-Proof motors available*
- Custom construction blowers are available
- Rugged die cast aluminum construction

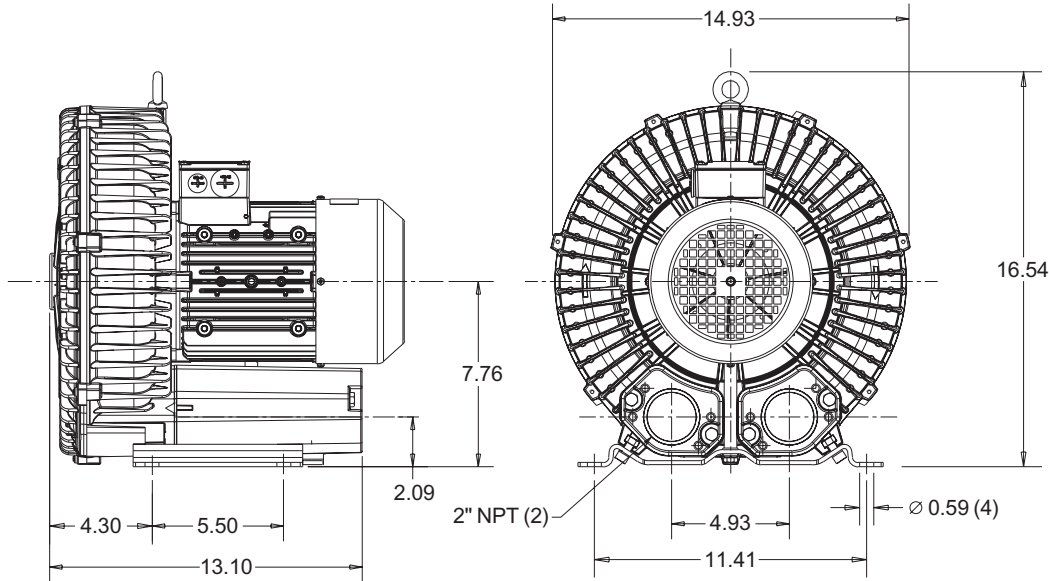
Performance curve for Vacuum pump



Performance curve for Compressor



### Dimensions: (inches)



### Recommended Accessories:

#### Relief valve:

VC61Z (Vacuum)  
PC61Z (Pressure)

#### Filter:

ATF-200-15124/1  
(Vacuum)  
AF-S30-200-10  
(Pressure)

Specifications subject to change without notice. Please contact factory for specification updates.

### Selection & Ordering Data - Type 3BA1600

Curve No.	Order No.	Fre- quency Hz	Rated power HP	Input voltage		Input current		Permissible total differential pressure		Sound pressure level dB(A)	Weight lbs
				V		A		Vacuum inch H2O	Compressor inch H2O		
<b>3~ 50/60 Hz IP55 insulation material class F</b>											
A 220	3BA1600-7AT06	50	2.15	200D ... 240D	345Y ... 415Y	8.5D	4.9Y	-64	60	69	57
A 221	3BA1600-7AT06	60	2.7	220D ... 250D	415Y ... 460Y	7.5D	4.4Y	-64	60	72	57
A 222	3BA1600-7AT16	50	2.95	200D ... 240D	345Y ... 415Y	9.7D	5.6Y	-76	76	70	64
A 223	3BA1600-7AT16	60	3.42	220D ... 250D	415Y ... 460Y	9.0D	5.3Y	-76	76	73	64
A 224	3BA1600-7AT26	50	4.02	200D ... 240D	345Y ... 415Y	12.5D	7.2Y	-104	108	70	75
A 225	<b>3BA1600-7AT26</b>	60	4.62	220D ... 250D	415Y ... 460Y	12.0D	6.5Y	-96	92	73	75
A 226	3BA1600-7AT36	50	5.36	200D ... 240D	345Y ... 415Y	13.0D	7.5Y	-116	145	70	93
A 227	3BA1600-7AT36	60	6.16	220D ... 250D	415Y ... 460Y	15.2D	8.5Y	-128	124	73	93

Suitable for 208 Volt Operation



## Air / Water Separators



**ESD Waste<sup>2</sup>Water, Inc.** ESD custom fabricates Air / Water Separators for Soil Vapor Extraction and Dual Phase Extraction applications. Made of structurally sound, light-weight marine grade 5052 aluminum, our separators can withstand full vacuum applications and are completely corrosion resistant. Unlike carbon steel based separators, ESD Separators resist both internal chemical corrosion and the harshest external environmental conditions. The aesthetic qualities of ESD Separators are never compromised by oxidation. ESD Separators never experience corrosive pitting leaks, because our designs render expensive internal/external epoxy mastic coatings entirely unnecessary.

ESD Separators are available in many standard sizes and can be custom designed with a wide variety of options, including pump out systems, level gauging, additional particulate filtration, and baffling for high entrained



Certified to UL-508A Standards

Thank you for allowing ESD to provide a solution to your equipment needs.



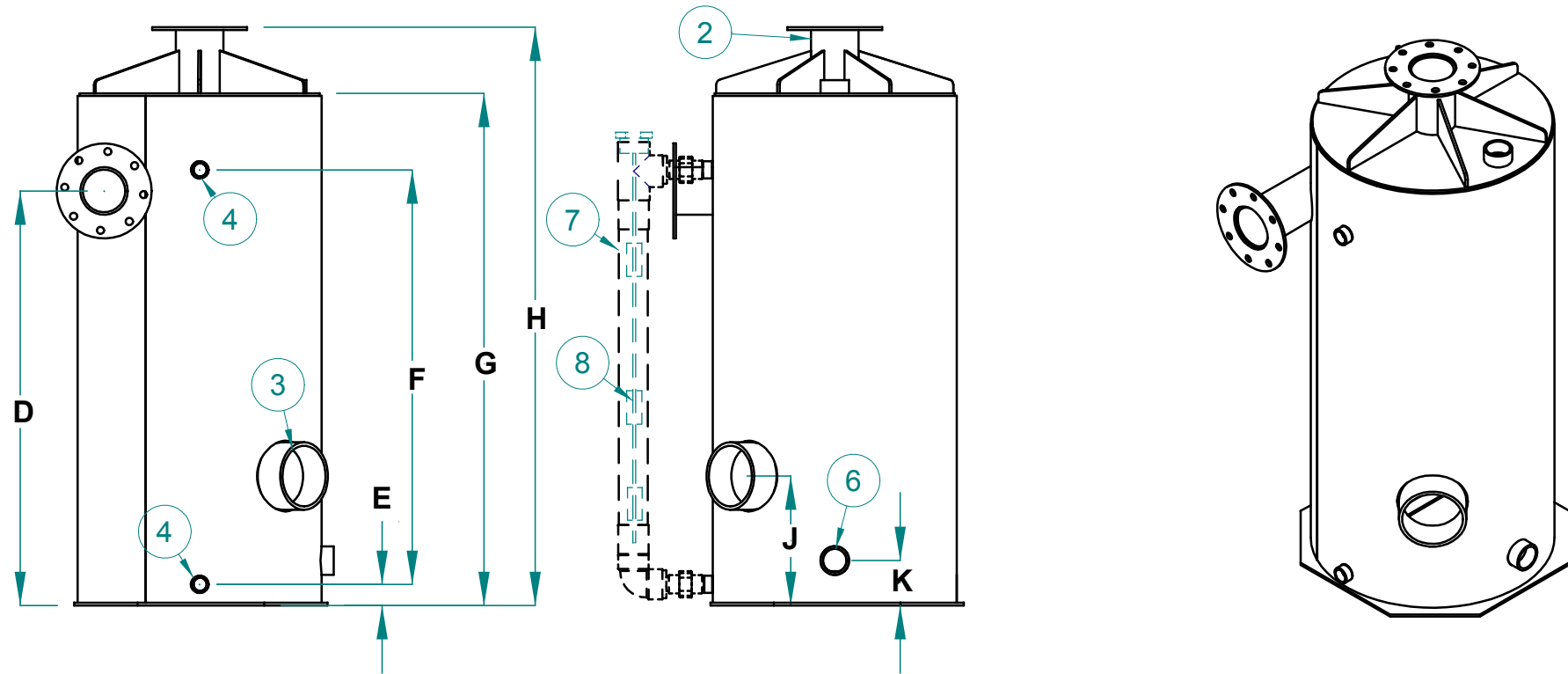
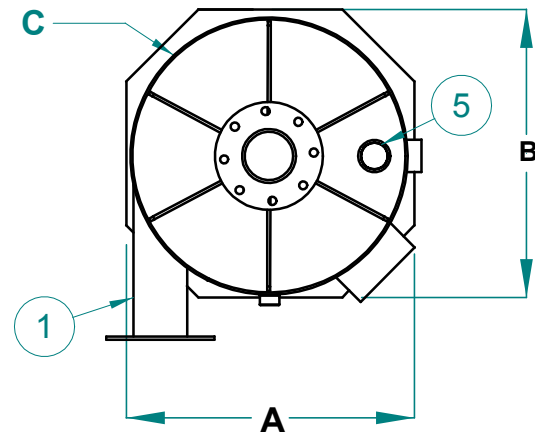
ESD Waste2Water, Inc.  
495 Oak Road  
Ocala, FL 34472  
Tel: 800.277.3279 Fax: 352.680.9278  
[www.waste2water.com](http://www.waste2water.com)



## STANDARD AWS SPECIFICATION

TYPE	WORKING VOLUME @ (LSH)	AVAILABLE CONNECTION TYPE															CLEAN OUT PIPE	A	B	C (DIA.)	D	E	F	G	H	J	
		FLANGE					MNPT					FNPT															
		2"	3"	4"	6"	8"	10"	2"	3"	4"	6"	8"	2"	3"	4"	6"											8"
AWS30	12 GAL	X	X	X	-	-	-	X	X	X	-	-	X	X	X	-	-	6"	-	-	16 1/4"	25"	2"	19"	30"	33 1/2"	6"
AWS60	24 GAL	X	X	X	X	-	-	X	X	X	X	-	X	X	X	-	-	6"	24"	24"	23"	25"	2"	23"	30"	36 1/2"	6"
<b>AWS80</b>	<b>47 GAL</b>	X	X	X	X	-	-	X	<b>X</b>	X	X	-	X	X	X	-	-	<b>8"</b>	<b>24"</b>	<b>24"</b>	<b>23"</b>	<b>39"</b>	<b>2"</b>	<b>39"</b>	<b>48"</b>	<b>54 3/4"</b>	<b>12"</b>
AWS120	50 GAL	X	X	X	X	X	-	X	X	X	X	-	X	X	X	-	-	8"	24"	24"	23"	49"	2"	49"	60"	66 3/4"	12"
AWS220	107 GAL	-	X	X	X	X	X	X	X	X	X	-	X	X	X	-	-	8"	34"	34"	33 1/2"	49"	2"	49"	60"	66 3/4"	12"

RECOMMENED AIR FLOW (ACFM)						
	2"	3"	4"	6"	8"	10" *
ACFM	120	280	320	500	750	1000



ITEM #	DESCRIPTION
1	INLET PIPE ( SEE TABLE FOR AVAILABLE SIZE AND CONNECTION TYPE)
2	OUTLET PIPE ( SEE TABLE FOR AVAILABLE SIZE AND CONNECTION TYPE)
3	CLEAN OUT
4	1" FNPT ( MULTI LEVEL PROBE)
5	2" FNPT
6	2" FNPT
7	SIGHT TUBE 2" CLEAR PVC
8	MULTI LEVEL PROBE

NOTES:
1. MATERIAL : 1/8" & 3/16" ALUMINUM SHT 5052
2. PROBE (SIGHT TUBE) : 2" CLEAR PVC
3. CUSTOM SIZES AVAILABLE

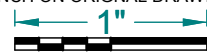
ALL IDEAS, DESIGNS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND THE PROPERTY OF ESD INC. AND WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON AND IN CONJUNCTION WITH THE SPECIFIED PROJECT. NONE OF THE IDEAS, DESIGNS OR PLANS SHALL BE USED OR DISCLOSED TO ANY PERSONS, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT WRITTEN PERMISSION OF ESD WASTE2WATER, INC.

**ESD Waste2Water, Inc.**

495 Oak Road  
Ocala, FL 34472  
Phone (800) 277-3279  
Fax (352) 680-0059

**SCALE VERIFICATION**

THIS BAR REPRESENTS ONE INCH ON ORIGINAL DRAWING



USE TO VERIFY DRAWING

SIZE: B  
SHEET #: 1 OF 1  
SCALE: NTS  
UPDATED BY:

DRAWN BY: J.ANDREWS  
APPROVED BY: N/A  
COMPLETED: 06/15/10  
UPDATED:

**AWS SPECIFICATIONS  
GENERAL LAYOUT**

JOB NUMBER:

PRODUCT NUMBER:

**AWS**

FILE NAME: "AWS SPEC.dft"

# Replacement Elements 35 - 6600 SCFM Flow Range



Small Elements  
with Molded Endcaps



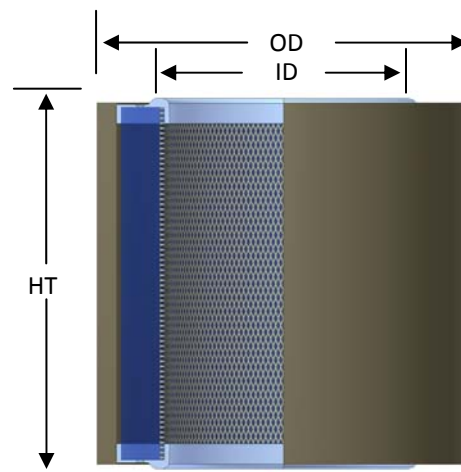
Compact & Large Elements  
with Metal Endcaps

## Features

- Pleated media for high dirt holding capacity
- Polyester: Reinforced with epoxy coated steel wire on both sides of cloth
- Paper: Heavy duty industrial strength paper surrounded by heavy gauge galvanized expanded metal
- 40 - 50% increased dust loading capacity with prefilter (part number suffix P)
- Optimal surface area per given size

## Technical Specifications

- Polyester: 99%+ removal efficiency to 5 micron
- Paper: 99%+ removal efficiency to 2 micron
- Temp (continuous): min -26°F (-15°C), max 220°F (104°C)
- Filter change out differential: 15-20" H<sub>2</sub>O over initial  $\Delta P$



## Polyester Media Benefits

- Washable with lukewarm water & mild detergent
- Less maintenance due to longer durability
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor

## Paper Media Benefits

- Optimal surface area per given size
- Higher efficiency than many alternative media
- Cost effective

### Replacement Elements—up to 300 SCFM flow

Element Part Number		Element SCFM	Surface Area ft <sup>2</sup>		Dimensions - inches			STD Endcap
Polyester	Paper	Rating	Polyester	Paper	ID	OD	HT	Features
15P	14P	35	0.50	1.12	3	4 3/8	2 5/16	M
19P	18P	100	1.50	3.00	3	4 3/8	4 3/4	M
31P	30P	195	2.30	6.20	3 5/8	5 3/4	4 3/4	M
35P	34P	275	4.00	11.00	4 3/4	7 7/8	4 13/16	M
231P	230P	300	4.50	11.8	3 5/8	5 3/4	9 1/2	M

Note: Also available in wire mesh. Example part number for wire mesh: 230S

Dimension tolerance ± 1/4"

See Element Technical Data section for maintenance guidelines

### Replacement Elements—up to 6600 SCFM flow

Element Part Number		Element SCFM	Surface Area ft <sup>2</sup>		Dimensions - inches			STD Endcap
Polyester	Paper	Rating	Polyester	Paper	ID	OD	HT	Features
235P	234P	570	8.3	22.8	4 3/4	7 7/8	9 5/8	M
335P	334P	800	12	34	4 3/4	7 7/8	14 1/2	M
237	236	550	8.6	22.6	4 2/3	7 3/4	8 1/2	GBN
239P	238P	570	11.5	52	4 7/8	9 1/4	10	GBN
245P	244P	880	14	35.5	6	9 3/4	9 5/8	GN   M
345P	344P	1100	22.1	57	6	9 3/4	14 1/2	GN
275P	274P	1100	19	45.4	8	11 3/4	9 5/8	GN
375P	374P	1500	28	68.1	8	11 3/4	14 1/2	GN
377P	376P	1825	50	125	9	14 5/8	14 1/2	GN
385P	384P	3300	50	140	14	19 5/8	14 1/2	GN
485P	484P	4705	75	200	14	19 5/8	21 1/2	GN
685P	--	6600	100	--	14	19 5/8	28 1/2	GN

Note: Most are available in wire mesh. Example part number for wire mesh: 244S

Dimension tolerance ± 1/4"

See Element Technical Data section for maintenance guidelines

### Endcap Information

- M = Molded plastisol
- B = Closed one end with bolt hole, open on other end
- G = Galvanized metal endcaps
- N = Neoprene gaskets on open end(s)

### Additional Media Options

- 1, 4, 25, and 100 micron Polyester
- HEPA
- Stainless steel wire mesh
- High temperature Nomex
- Stainless steel Nomex reinforced by stainless steel wire mesh & expanded metal
- Polypropylene
- Activated carbon

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# **APPENDIX C**

## **Analytical Laboratory Data**

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## ANALYTICAL REPORT

Lab Number:	L1630676
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	10/05/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1630676-01	RAW AIR	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	09/27/16 16:00	09/28/16

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on September 23, 2016. The canister certification results are provided as an addendum.

Sample L1630676-01: The samples were diluted and re-analyzed to quantify the results within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

The WG938699-3 LCS recoveries for Vinyl Acetate (132%), Carbon Tetrachloride (134%), Bromodichloromethane (131%) and 4-Methyl-2-Pentanone (132%) are above the upper 130% acceptance limit. The response for these compounds was elevated however they were not detected in any of the associated samples therefore no further action was required.

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: 10/05/16

**AIR**

**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

**SAMPLE RESULTS**

Lab ID: L1630676-01 D  
 Client ID: RAW AIR  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/05/16 01:38  
 Analyst: MB

Date Collected: 09/27/16 16:00  
 Date Received: 09/28/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	78.1	37.2	--	386	184	--		185.9
Chloromethane	ND	37.2	--	ND	76.8	--		185.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	37.2	--	ND	260	--		185.9
Vinyl chloride	445	37.2	--	1140	95.1	--		185.9
1,3-Butadiene	ND	37.2	--	ND	82.3	--		185.9
Bromomethane	ND	37.2	--	ND	144	--		185.9
Chloroethane	35000	37.2	--	92400	98.2	--	E	185.9
Ethyl Alcohol	ND	930	--	ND	1750	--		185.9
Vinyl bromide	ND	37.2	--	ND	163	--		185.9
Acetone	658	186	--	1560	442	--		185.9
Trichlorofluoromethane	ND	37.2	--	ND	209	--		185.9
iso-Propyl Alcohol	ND	93.0	--	ND	229	--		185.9
1,1-Dichloroethene	116	37.2	--	460	147	--		185.9
tert-Butyl Alcohol	ND	93.0	--	ND	282	--		185.9
Methylene chloride	ND	93.0	--	ND	323	--		185.9
3-Chloropropene	ND	37.2	--	ND	116	--		185.9
Carbon disulfide	ND	37.2	--	ND	116	--		185.9
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	37.2	--	ND	285	--		185.9
trans-1,2-Dichloroethene	ND	37.2	--	ND	147	--		185.9
1,1-Dichloroethane	14300	37.2	--	57900	151	--		185.9
Methyl tert butyl ether	ND	37.2	--	ND	134	--		185.9
2-Butanone	778	93.0	--	2290	274	--		185.9
cis-1,2-Dichloroethene	73.2	37.2	--	290	147	--		185.9
Ethyl Acetate	ND	93.0	--	ND	335	--		185.9



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

### SAMPLE RESULTS

Lab ID: L1630676-01 D Date Collected: 09/27/16 16:00  
 Client ID: RAW AIR Date Received: 09/28/16  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	37.2	--	ND	182	--		185.9
Tetrahydrofuran	3080	93.0	--	9080	274	--		185.9
1,2-Dichloroethane	ND	37.2	--	ND	151	--		185.9
n-Hexane	48.7	37.2	--	172	131	--		185.9
1,1,1-Trichloroethane	16100	37.2	--	87800	203	--		185.9
Benzene	ND	37.2	--	ND	119	--		185.9
Carbon tetrachloride	ND	37.2	--	ND	234	--		185.9
Cyclohexane	109	37.2	--	375	128	--		185.9
1,2-Dichloropropane	ND	37.2	--	ND	172	--		185.9
Bromodichloromethane	ND	37.2	--	ND	249	--		185.9
1,4-Dioxane	ND	37.2	--	ND	134	--		185.9
Trichloroethene	180	37.2	--	967	200	--		185.9
2,2,4-Trimethylpentane	42.6	37.2	--	199	174	--		185.9
Heptane	ND	37.2	--	ND	152	--		185.9
cis-1,3-Dichloropropene	ND	37.2	--	ND	169	--		185.9
4-Methyl-2-pentanone	ND	93.0	--	ND	381	--		185.9
trans-1,3-Dichloropropene	ND	37.2	--	ND	169	--		185.9
1,1,2-Trichloroethane	ND	37.2	--	ND	203	--		185.9
Toluene	ND	37.2	--	ND	140	--		185.9
2-Hexanone	ND	37.2	--	ND	152	--		185.9
Dibromochloromethane	ND	37.2	--	ND	317	--		185.9
1,2-Dibromoethane	ND	37.2	--	ND	286	--		185.9
Tetrachloroethene	75.1	37.2	--	509	252	--		185.9
Chlorobenzene	ND	37.2	--	ND	171	--		185.9
Ethylbenzene	ND	37.2	--	ND	162	--		185.9
p/m-Xylene	ND	74.4	--	ND	323	--		185.9
Bromoform	ND	37.2	--	ND	385	--		185.9
Styrene	ND	37.2	--	ND	158	--		185.9



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

### SAMPLE RESULTS

Lab ID: L1630676-01 D Date Collected: 09/27/16 16:00  
 Client ID: RAW AIR Date Received: 09/28/16  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	37.2	--	ND	255	--		185.9
o-Xylene	ND	37.2	--	ND	162	--		185.9
4-Ethyltoluene	ND	37.2	--	ND	183	--		185.9
1,3,5-Trimethylbenzene	ND	37.2	--	ND	183	--		185.9
1,2,4-Trimethylbenzene	ND	37.2	--	ND	183	--		185.9
Benzyl chloride	ND	37.2	--	ND	193	--		185.9
1,3-Dichlorobenzene	ND	37.2	--	ND	224	--		185.9
1,4-Dichlorobenzene	ND	37.2	--	ND	224	--		185.9
1,2-Dichlorobenzene	ND	37.2	--	ND	224	--		185.9
1,2,4-Trichlorobenzene	ND	37.2	--	ND	276	--		185.9
Hexachlorobutadiene	ND	37.2	--	ND	397	--		185.9

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

### SAMPLE RESULTS

Lab ID: L1630676-01 D2  
 Client ID: RAW AIR  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/05/16 07:26  
 Analyst: MB

Date Collected: 09/27/16 16:00  
 Date Received: 09/28/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroethane	37900	112	--	100000	296	--		557.8

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140



Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/04/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG938699-4								
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
1,2-Dichloro-1,1,2,2-tetrafluoroethane	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
Ethyl Alcohol	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
iso-Propyl Alcohol	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
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/04/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG938699-4								
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
1,1,2-Trichloro-1,2,2-Trifluoroethane	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
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-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
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/04/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG938699-4								
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
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

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/04/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG938699-4								
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 (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-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 (C10)	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 (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/04/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG938699-4								
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

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG938699-3								
Chlorodifluoromethane	108		-		70-130	-		
Propylene	124		-		70-130	-		
Propane	114		-		70-130	-		
Dichlorodifluoromethane	124		-		70-130	-		
Chloromethane	112		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	111		-		70-130	-		
Methanol	96		-		70-130	-		
Vinyl chloride	108		-		70-130	-		
1,3-Butadiene	113		-		70-130	-		
Butane	96		-		70-130	-		
Bromomethane	104		-		70-130	-		
Chloroethane	107		-		70-130	-		
Ethyl Alcohol	113		-		70-130	-		
Dichlorofluoromethane	101		-		70-130	-		
Vinyl bromide	102		-		70-130	-		
Acrolein	95		-		70-130	-		
Acetone	95		-		70-130	-		
Acetonitrile	101		-		70-130	-		
Trichlorofluoromethane	120		-		70-130	-		
iso-Propyl Alcohol	104		-		70-130	-		
Acrylonitrile	102		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG938699-3								
Pentane	100		-		70-130	-		
Ethyl ether	107		-		70-130	-		
1,1-Dichloroethene	113		-		70-130	-		
tert-Butyl Alcohol	100		-		70-130	-		
Methylene chloride	108		-		70-130	-		
3-Chloropropene	119		-		70-130	-		
Carbon disulfide	98		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	111		-		70-130	-		
trans-1,2-Dichloroethene	101		-		70-130	-		
1,1-Dichloroethane	110		-		70-130	-		
Methyl tert butyl ether	104		-		70-130	-		
Vinyl acetate	132	Q	-		70-130	-		
2-Butanone	112		-		70-130	-		
cis-1,2-Dichloroethene	119		-		70-130	-		
Ethyl Acetate	102		-		70-130	-		
Chloroform	113		-		70-130	-		
Tetrahydrofuran	110		-		70-130	-		
2,2-Dichloropropane	98		-		70-130	-		
1,2-Dichloroethane	115		-		70-130	-		
n-Hexane	117		-		70-130	-		
Isopropyl Ether	108		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG938699-3								
Ethyl-Tert-Butyl-Ether	109		-		70-130	-		
1,1,1-Trichloroethane	127		-		70-130	-		
1,1-Dichloropropene	116		-		70-130	-		
Benzene	115		-		70-130	-		
Carbon tetrachloride	134	Q	-		70-130	-		
Cyclohexane	120		-		70-130	-		
Tertiary-Amyl Methyl Ether	107		-		70-130	-		
Dibromomethane	116		-		70-130	-		
1,2-Dichloropropane	118		-		70-130	-		
Bromodichloromethane	131	Q	-		70-130	-		
1,4-Dioxane	116		-		70-130	-		
Trichloroethene	114		-		70-130	-		
2,2,4-Trimethylpentane	117		-		70-130	-		
Methyl Methacrylate	107		-		70-130	-		
Heptane	124		-		70-130	-		
cis-1,3-Dichloropropene	125		-		70-130	-		
4-Methyl-2-pentanone	132	Q	-		70-130	-		
trans-1,3-Dichloropropene	111		-		70-130	-		
1,1,2-Trichloroethane	123		-		70-130	-		
Toluene	98		-		70-130	-		
1,3-Dichloropropane	95		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG938699-3								
2-Hexanone	113		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	105		-		70-130	-		
Butyl Acetate	87		-		70-130	-		
Octane	87		-		70-130	-		
Tetrachloroethene	95		-		70-130	-		
1,1,1,2-Tetrachloroethane	97		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	101		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	106		-		70-130	-		
Styrene	101		-		70-130	-		
1,1,2,2-Tetrachloroethane	107		-		70-130	-		
o-Xylene	104		-		70-130	-		
1,2,3-Trichloropropane	96		-		70-130	-		
Nonane (C9)	103		-		70-130	-		
Isopropylbenzene	97		-		70-130	-		
Bromobenzene	96		-		70-130	-		
o-Chlorotoluene	91		-		70-130	-		
n-Propylbenzene	93		-		70-130	-		
p-Chlorotoluene	97		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1630676

Project Number: Not Specified

Report Date: 10/05/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG938699-3								
4-Ethyltoluene	99		-		70-130	-		
1,3,5-Trimethylbenzene	103		-		70-130	-		
tert-Butylbenzene	95		-		70-130	-		
1,2,4-Trimethylbenzene	106		-		70-130	-		
Decane (C10)	97		-		70-130	-		
Benzyl chloride	109		-		70-130	-		
1,3-Dichlorobenzene	103		-		70-130	-		
1,4-Dichlorobenzene	104		-		70-130	-		
sec-Butylbenzene	96		-		70-130	-		
p-Isopropyltoluene	89		-		70-130	-		
1,2-Dichlorobenzene	107		-		70-130	-		
n-Butylbenzene	104		-		70-130	-		
1,2-Dibromo-3-chloropropane	112		-		70-130	-		
Undecane	107		-		70-130	-		
Dodecane (C12)	118		-		70-130	-		
1,2,4-Trichlorobenzene	116		-		70-130	-		
Naphthalene	106		-		70-130	-		
1,2,3-Trichlorobenzene	114		-		70-130	-		
Hexachlorobutadiene	116		-		70-130	-		



Project Name:

Project Number:

Serial\_No:10051614:49  
Lab Number: L1630676

Report Date: 10/05/16

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1630676-01	RAW AIR	767	6.0L Can	09/23/16	229229	L1626629-01	Pass	-29.4	-1.2	-	-	-	-

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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 08/25/16 18:21  
 Analyst: MB

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		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
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
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
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
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



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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01      Date Collected: 08/24/16 16:00  
 Client ID: CAN 767 SHELF 42      Date Received: 08/25/16  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatiles Organics in Air - Mansfield Lab</b>								
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
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



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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

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



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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140



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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 08/25/16 18:21  
 Analyst: MB

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1626629  
**Report Date:** 10/05/16

### Air Canister Certification Results

Lab ID: L1626629-01  
 Client ID: CAN 767 SHELF 42  
 Sample Location:

Date Collected: 08/24/16 16:00  
 Date Received: 08/25/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140





**Project Name:** Not Specified**Lab Number:** L1630676**Project Number:** Not Specified**Report Date:** 10/05/16**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(*)
L1630676-01A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

#### 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.

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1630676  
**Report Date:** 10/05/16

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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, SM9222D-MF.**

### 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

**CHAIN OF CUSTODY**

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

PAGE 1 OF 1

Date Rec'd in Lab: 9/29/16

ALPHA Job #: L1630676

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Avenue  
New Hyde Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

**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 #:

**Client Information**

Client: Car Rich Consultants, Inc  
 Address: 17 Outpost Street  
Plain View NY 11803  
 Phone: 516-576-8844

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Fax:  
 Email: JProscia@CarRich.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Regulatory Requirements/Report Limits**

State/Fed	Program	Res / Comm

**ANALYSIS**

TO-15  
 TO-15 SIM  
 APH  
 Fixed Gases  
 Sulfides & Mercaptans by TO-15  
 Subtract Non-petroleum HCs

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum											
30676-01	RAW Air	9/27/16	4:00	4:00	-30	-2	SV	JJP	6L	767	/	X					

**\*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]  
Al Williams

9/28/16 1100  
9-28-16 2315  
9-29-16 04:00

[Signature]  
Al Williams

9-28-16 1100  
9-28-16 2315  
9/29/16 04:00



## ANALYTICAL REPORT

Lab Number:	L1632762
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	10/20/16

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1632762-01	RAW AIR (10/12/16)	SOIL_VAPOR	1801 FALMOUTH AVENUE, NEW HYDE PARK, NY	10/12/16 14:01	10/13/16
L1632762-02	EFFLUENT (10/12/16)	SOIL_VAPOR	1801 FALMOUTH AVENUE, NEW HYDE PARK, NY	10/12/16 14:06	10/13/16



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### 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.

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**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on October 10, 2016. The canister certification results are provided as an addendum.

Samples L1632762-01 and -02: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

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: 10/20/16

**AIR**

**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### SAMPLE RESULTS

Lab ID: L1632762-01 D  
 Client ID: RAW AIR (10/12/16)  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/20/16 07:49  
 Analyst: MB

Date Collected: 10/12/16 14:01  
 Date Received: 10/13/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	22.6	--	ND	112	--		113.1
Chloromethane	ND	22.6	--	ND	46.7	--		113.1
Freon-114	ND	22.6	--	ND	158	--		113.1
Vinyl chloride	30.2	22.6	--	77.2	57.8	--		113.1
1,3-Butadiene	ND	22.6	--	ND	50.0	--		113.1
Bromomethane	ND	22.6	--	ND	87.8	--		113.1
Chloroethane	1350	22.6	--	3560	59.6	--		113.1
Ethanol	ND	566	--	ND	1070	--		113.1
Vinyl bromide	ND	22.6	--	ND	98.8	--		113.1
Acetone	ND	113	--	ND	268	--		113.1
Trichlorofluoromethane	ND	22.6	--	ND	127	--		113.1
Isopropanol	ND	56.6	--	ND	139	--		113.1
1,1-Dichloroethene	26.1	22.6	--	103	89.6	--		113.1
Tertiary butyl Alcohol	ND	56.6	--	ND	172	--		113.1
Methylene chloride	ND	56.6	--	ND	197	--		113.1
3-Chloropropene	ND	22.6	--	ND	70.7	--		113.1
Carbon disulfide	ND	22.6	--	ND	70.4	--		113.1
Freon-113	ND	22.6	--	ND	173	--		113.1
trans-1,2-Dichloroethene	ND	22.6	--	ND	89.6	--		113.1
1,1-Dichloroethane	1460	22.6	--	5910	91.5	--		113.1
Methyl tert butyl ether	ND	22.6	--	ND	81.5	--		113.1
2-Butanone	ND	56.6	--	ND	167	--		113.1
cis-1,2-Dichloroethene	ND	22.6	--	ND	89.6	--		113.1
Ethyl Acetate	ND	56.6	--	ND	204	--		113.1



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### SAMPLE RESULTS

Lab ID: L1632762-01 D Date Collected: 10/12/16 14:01  
 Client ID: RAW AIR (10/12/16) Date Received: 10/13/16  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	22.6	--	ND	110	--		113.1
Tetrahydrofuran	ND	56.6	--	ND	167	--		113.1
1,2-Dichloroethane	ND	22.6	--	ND	91.5	--		113.1
n-Hexane	ND	22.6	--	ND	79.6	--		113.1
1,1,1-Trichloroethane	4310	22.6	--	23500	123	--		113.1
Benzene	ND	22.6	--	ND	72.2	--		113.1
Carbon tetrachloride	ND	22.6	--	ND	142	--		113.1
Cyclohexane	27.8	22.6	--	95.7	77.8	--		113.1
1,2-Dichloropropane	ND	22.6	--	ND	104	--		113.1
Bromodichloromethane	ND	22.6	--	ND	151	--		113.1
1,4-Dioxane	ND	22.6	--	ND	81.4	--		113.1
Trichloroethene	76.0	22.6	--	408	121	--		113.1
2,2,4-Trimethylpentane	ND	22.6	--	ND	106	--		113.1
Heptane	ND	22.6	--	ND	92.6	--		113.1
cis-1,3-Dichloropropene	ND	22.6	--	ND	103	--		113.1
4-Methyl-2-pentanone	ND	56.6	--	ND	232	--		113.1
trans-1,3-Dichloropropene	ND	22.6	--	ND	103	--		113.1
1,1,2-Trichloroethane	ND	22.6	--	ND	123	--		113.1
Toluene	ND	22.6	--	ND	85.2	--		113.1
2-Hexanone	ND	22.6	--	ND	92.6	--		113.1
Dibromochloromethane	ND	22.6	--	ND	193	--		113.1
1,2-Dibromoethane	ND	22.6	--	ND	174	--		113.1
Tetrachloroethene	76.6	22.6	--	519	153	--		113.1
Chlorobenzene	ND	22.6	--	ND	104	--		113.1
Ethylbenzene	ND	22.6	--	ND	98.2	--		113.1
p/m-Xylene	ND	45.2	--	ND	196	--		113.1
Bromoform	ND	22.6	--	ND	234	--		113.1
Styrene	ND	22.6	--	ND	96.2	--		113.1



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

**SAMPLE RESULTS**

Lab ID: L1632762-01 D Date Collected: 10/12/16 14:01  
 Client ID: RAW AIR (10/12/16) Date Received: 10/13/16  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	22.6	--	ND	155	--		113.1
o-Xylene	ND	22.6	--	ND	98.2	--		113.1
4-Ethyltoluene	ND	22.6	--	ND	111	--		113.1
1,3,5-Trimethylbenzene	ND	22.6	--	ND	111	--		113.1
1,2,4-Trimethylbenzene	ND	22.6	--	ND	111	--		113.1
Benzyl chloride	ND	22.6	--	ND	117	--		113.1
1,3-Dichlorobenzene	ND	22.6	--	ND	136	--		113.1
1,4-Dichlorobenzene	ND	22.6	--	ND	136	--		113.1
1,2-Dichlorobenzene	ND	22.6	--	ND	136	--		113.1
1,2,4-Trichlorobenzene	ND	22.6	--	ND	168	--		113.1
Hexachlorobutadiene	ND	22.6	--	ND	241	--		113.1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	117		60-140
Bromochloromethane	115		60-140
chlorobenzene-d5	115		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### SAMPLE RESULTS

Lab ID: L1632762-02 D  
 Client ID: EFFLUENT (10/12/16)  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/20/16 03:11  
 Analyst: MB

Date Collected: 10/12/16 14:06  
 Date Received: 10/13/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	13.5	2.00	--	34.5	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	692	2.00	--	1830	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	ND	10.0	--	ND	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	6.99	5.00	--	24.3	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	ND	2.00	--	ND	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### SAMPLE RESULTS

Lab ID: L1632762-02 D  
 Client ID: EFFLUENT (10/12/16)  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE

Date Collected: 10/12/16 14:06  
 Date Received: 10/13/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	2.00	--	ND	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	ND	2.00	--	ND	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

### SAMPLE RESULTS

Lab ID: L1632762-02 D Date Collected: 10/12/16 14:06  
 Client ID: EFFLUENT (10/12/16) Date Received: 10/13/16  
 Sample Location: 1801 FALMOUTH AVENUE, NEW HYDE Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	101		60-140



Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/19/16 15:16

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG943769-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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



Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/19/16 15:16

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG943769-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 10/19/16 15:16

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG943769-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG943769-3								
Chlorodifluoromethane	95		-		70-130	-		
Propylene	115		-		70-130	-		
Propane	100		-		70-130	-		
Dichlorodifluoromethane	91		-		70-130	-		
Chloromethane	113		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	105		-		70-130	-		
Methanol	87		-		70-130	-		
Vinyl chloride	112		-		70-130	-		
1,3-Butadiene	118		-		70-130	-		
Butane	95		-		70-130	-		
Bromomethane	105		-		70-130	-		
Chloroethane	110		-		70-130	-		
Ethyl Alcohol	106		-		70-130	-		
Dichlorofluoromethane	99		-		70-130	-		
Vinyl bromide	101		-		70-130	-		
Acrolein	98		-		70-130	-		
Acetone	84		-		70-130	-		
Acetonitrile	112		-		70-130	-		
Trichlorofluoromethane	100		-		70-130	-		
iso-Propyl Alcohol	100		-		70-130	-		
Acrylonitrile	110		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG943769-3								
Pentane	97		-		70-130	-		
Ethyl ether	104		-		70-130	-		
1,1-Dichloroethene	110		-		70-130	-		
tert-Butyl Alcohol	102		-		70-130	-		
Methylene chloride	111		-		70-130	-		
3-Chloropropene	129		-		70-130	-		
Carbon disulfide	111		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		
trans-1,2-Dichloroethene	95		-		70-130	-		
1,1-Dichloroethane	103		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
Vinyl acetate	116		-		70-130	-		
2-Butanone	101		-		70-130	-		
cis-1,2-Dichloroethene	114		-		70-130	-		
Ethyl Acetate	105		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	104		-		70-130	-		
2,2-Dichloropropane	87		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	122		-		70-130	-		
Isopropyl Ether	105		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG943769-3								
Ethyl-Tert-Butyl-Ether	107		-		70-130	-		
1,1,1-Trichloroethane	111		-		70-130	-		
1,1-Dichloropropene	113		-		70-130	-		
Benzene	115		-		70-130	-		
Carbon tetrachloride	110		-		70-130	-		
Cyclohexane	122		-		70-130	-		
Tertiary-Amyl Methyl Ether	104		-		70-130	-		
Dibromomethane	107		-		70-130	-		
1,2-Dichloropropane	127		-		70-130	-		
Bromodichloromethane	116		-		70-130	-		
1,4-Dioxane	112		-		70-130	-		
Trichloroethene	112		-		70-130	-		
2,2,4-Trimethylpentane	122		-		70-130	-		
Methyl Methacrylate	74		-		70-130	-		
Heptane	125		-		70-130	-		
cis-1,3-Dichloropropene	125		-		70-130	-		
4-Methyl-2-pentanone	124		-		70-130	-		
trans-1,3-Dichloropropene	106		-		70-130	-		
1,1,2-Trichloroethane	119		-		70-130	-		
Toluene	108		-		70-130	-		
1,3-Dichloropropane	105		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG943769-3								
2-Hexanone	119		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	111		-		70-130	-		
Butyl Acetate	105		-		70-130	-		
Octane	101		-		70-130	-		
Tetrachloroethene	102		-		70-130	-		
1,1,1,2-Tetrachloroethane	97		-		70-130	-		
Chlorobenzene	110		-		70-130	-		
Ethylbenzene	111		-		70-130	-		
p/m-Xylene	112		-		70-130	-		
Bromoform	103		-		70-130	-		
Styrene	111		-		70-130	-		
1,1,2,2-Tetrachloroethane	120		-		70-130	-		
o-Xylene	115		-		70-130	-		
1,2,3-Trichloropropane	106		-		70-130	-		
Nonane (C9)	112		-		70-130	-		
Isopropylbenzene	107		-		70-130	-		
Bromobenzene	107		-		70-130	-		
o-Chlorotoluene	101		-		70-130	-		
n-Propylbenzene	99		-		70-130	-		
p-Chlorotoluene	105		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1632762

Project Number: Not Specified

Report Date: 10/20/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG943769-3								
4-Ethyltoluene	110		-		70-130	-		
1,3,5-Trimethylbenzene	111		-		70-130	-		
tert-Butylbenzene	106		-		70-130	-		
1,2,4-Trimethylbenzene	118		-		70-130	-		
Decane (C10)	114		-		70-130	-		
Benzyl chloride	114		-		70-130	-		
1,3-Dichlorobenzene	111		-		70-130	-		
1,4-Dichlorobenzene	109		-		70-130	-		
sec-Butylbenzene	107		-		70-130	-		
p-Isopropyltoluene	96		-		70-130	-		
1,2-Dichlorobenzene	111		-		70-130	-		
n-Butylbenzene	114		-		70-130	-		
1,2-Dibromo-3-chloropropane	107		-		70-130	-		
Undecane	119		-		70-130	-		
Dodecane (C12)	132	Q	-		70-130	-		
1,2,4-Trichlorobenzene	120		-		70-130	-		
Naphthalene	109		-		70-130	-		
1,2,3-Trichlorobenzene	113		-		70-130	-		
Hexachlorobutadiene	111		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1632762

Report Date: 10/20/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG943769-5 QC Sample: L1632747-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.307	0.292	ppbV	5		25
Chloromethane	0.472	0.515	ppbV	9		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	3.82	3.89	ppbV	2		25
Trichlorofluoromethane	ND	0.208	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	3.58	3.71	ppbV	4		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1632762

Report Date: 10/20/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG943769-5 QC Sample: L1632747-01 Client ID: DUP Sample					
2-Butanone	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	0.215	0.221	ppbV	3	25
2-Hexanone	ND	ND	ppbV	NC	25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1632762

Report Date: 10/20/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG943769-5 QC Sample: L1632747-01 Client ID: DUP Sample					
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name:

Project Number:

Serial\_No:10201615:05  
Lab Number: L1632762

Report Date: 10/20/16

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1632762-01	RAW AIR (10/12/16)	697	6.0L Can	10/10/16	229992	L1631979-01	Pass	-29.9	-1.5	-	-	-	-
L1632762-02	EFFLUENT (10/12/16)	1575	6.0L Can	10/10/16	229992	L1631979-01	Pass	-29.7	-1.0	-	-	-	-

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

**Lab Number:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01  
 Client ID: CAN 1858 SHELF 46  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 10/07/16 09:51  
 Analyst: MB

Date Collected: 10/06/16 16:00  
 Date Received: 10/07/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01 Date Collected: 10/06/16 16:00  
 Client ID: CAN 1858 SHELF 46 Date Received: 10/07/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01 Date Collected: 10/06/16 16:00  
 Client ID: CAN 1858 SHELF 46 Date Received: 10/07/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01  
 Client ID: CAN 1858 SHELF 46  
 Sample Location:

Date Collected: 10/06/16 16:00  
 Date Received: 10/07/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01 Date Collected: 10/06/16 16:00  
 Client ID: CAN 1858 SHELF 46 Date Received: 10/07/16  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

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

**Lab Number:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01  
 Client ID: CAN 1858 SHELF 46  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 10/07/16 09:51  
 Analyst: MB

Date Collected: 10/06/16 16:00  
 Date Received: 10/07/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1631979  
**Report Date:** 10/20/16

### Air Canister Certification Results

Lab ID: L1631979-01 Date Collected: 10/06/16 16:00  
 Client ID: CAN 1858 SHELF 46 Date Received: 10/07/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1631979**Project Number:** CANISTER QC BAT**Report Date:** 10/20/16**Air Canister Certification Results**

Lab ID: L1631979-01

Date Collected: 10/06/16 16:00

Client ID: CAN 1858 SHELF 46

Date Received: 10/07/16

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	96		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

**Project Name:** Not Specified**Lab Number:** L1632762**Project Number:** Not Specified**Report Date:** 10/20/16**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(*)
L1632762-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1632762-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

#### 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.



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1632762  
**Report Date:** 10/20/16

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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, SM9222D-MF.**

### 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 1 OF 1



**CHAIN OF CUSTODY**

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

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Avenue  
 Project #: New Hyde Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: Time:

Date Rec'd in Lab: 10/14/16

**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)

ALPHA Job #: 4632762

**Billing Information**

Same as Client info PO #:

**Client Information**

Client: Ca Rich Consultants  
 Address: 17 DuPont Street  
Plainview NY 11803  
 Phone: 516-576-8842  
 Fax:  
 Email: JProscia@carichinc.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Regulatory Requirements/Report Limits**

State/Fed	Program	Res / Comm

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum											
<u>32762.01</u>	<u>RAW Air (10/12/16)</u>	<u>10/12/16</u>	<u>2:00</u>	<u>2:01</u>	<u>30</u>	<u>S</u>	<u>SV</u>	<u>JP</u>	<u>6L</u>	<u>697</u>	<u>/</u>	<u>X</u>					
<u>.02</u>	<u>EFFluent (10/12/16)</u>	<u>10/12/16</u>	<u>2:05</u>	<u>2:06</u>	<u>30</u>	<u>S</u>	<u>SV</u>	<u>JP</u>	<u>6L</u>	<u>1575</u>	<u>/</u>	<u>K</u>					

**\*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:

Tom Tobin 11/13/16 01:50 Tom Tobin 11/13/16 01:50  
Tom Tobin 10-14-16 02:10 Tom Tobin 10-13-16 2000  
Tom Tobin 10/14/16 07:25 Tom Tobin 10/14/16 07:25



## ANALYTICAL REPORT

Lab Number:	L1638270
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	12/02/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1638270-01	RAW AIR (11/22/16)	SOIL_VAPOR	1801 FALMOUTH AVE., NEW HYDE PARK, NY	11/22/16 08:00	11/23/16
L1638270-02	MID AIR (11/22/16)	SOIL_VAPOR	1801 FALMOUTH AVE., NEW HYDE PARK, NY	11/22/16 08:05	11/23/16
L1638270-03	EFFLUENT AIR (11/22/16)	SOIL_VAPOR	1801 FALMOUTH AVE., NEW HYDE PARK, NY	11/22/16 08:10	11/23/16

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on November 21, 2016. The canister certification results are provided as an addendum.

Sample L1638270-01 through -03: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1638270-02 results for Acetone should be considered estimated due to co-elution with a non-target peak.

The WG957230-3 LCS recovery for 1,2,4-trichlorobenzene (136%) is above the upper 130% acceptance limit. The response for this compound was elevated however it was not detected in any of the associated samples therefore no further action was required.

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: 12/02/16

**AIR**



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-01 D  
 Client ID: RAW AIR (11/22/16)  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/02/16 00:13  
 Analyst: MB

Date Collected: 11/22/16 08:00  
 Date Received: 11/23/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	5.77	--	ND	28.5	--		28.84
Chloromethane	ND	5.77	--	ND	11.9	--		28.84
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	5.77	--	ND	40.3	--		28.84
Vinyl chloride	25.8	5.77	--	66.0	14.7	--		28.84
1,3-Butadiene	ND	5.77	--	ND	12.8	--		28.84
Bromomethane	ND	5.77	--	ND	22.4	--		28.84
Chloroethane	1110	5.77	--	2930	15.2	--		28.84
Ethyl Alcohol	ND	144	--	ND	271	--		28.84
Vinyl bromide	ND	5.77	--	ND	25.2	--		28.84
Acetone	ND	28.8	--	ND	68.4	--		28.84
Trichlorofluoromethane	ND	5.77	--	ND	32.4	--		28.84
iso-Propyl Alcohol	ND	14.4	--	ND	35.4	--		28.84
1,1-Dichloroethene	16.9	5.77	--	67.0	22.9	--		28.84
tert-Butyl Alcohol	20.9	14.4	--	63.4	43.7	--		28.84
Methylene chloride	ND	14.4	--	ND	50.0	--		28.84
3-Chloropropene	ND	5.77	--	ND	18.1	--		28.84
Carbon disulfide	ND	5.77	--	ND	18.0	--		28.84
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5.77	--	ND	44.2	--		28.84
trans-1,2-Dichloroethene	ND	5.77	--	ND	22.9	--		28.84
1,1-Dichloroethane	968	5.77	--	3920	23.4	--		28.84
Methyl tert butyl ether	ND	5.77	--	ND	20.8	--		28.84
2-Butanone	ND	14.4	--	ND	42.5	--		28.84
cis-1,2-Dichloroethene	42.9	5.77	--	170	22.9	--		28.84
Ethyl Acetate	ND	14.4	--	ND	51.9	--		28.84



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

**SAMPLE RESULTS**

Lab ID: L1638270-01 D Date Collected: 11/22/16 08:00  
 Client ID: RAW AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	13.7	5.77	--	66.9	28.2	--		28.84
Tetrahydrofuran	ND	14.4	--	ND	42.5	--		28.84
1,2-Dichloroethane	ND	5.77	--	ND	23.4	--		28.84
n-Hexane	ND	5.77	--	ND	20.3	--		28.84
1,1,1-Trichloroethane	1910	5.77	--	10400	31.5	--		28.84
Benzene	ND	5.77	--	ND	18.4	--		28.84
Carbon tetrachloride	ND	5.77	--	ND	36.3	--		28.84
Cyclohexane	15.0	5.77	--	51.6	19.9	--		28.84
1,2-Dichloropropane	ND	5.77	--	ND	26.7	--		28.84
Bromodichloromethane	ND	5.77	--	ND	38.7	--		28.84
1,4-Dioxane	ND	5.77	--	ND	20.8	--		28.84
Trichloroethene	91.9	5.77	--	494	31.0	--		28.84
2,2,4-Trimethylpentane	6.75	5.77	--	31.5	27.0	--		28.84
Heptane	ND	5.77	--	ND	23.6	--		28.84
cis-1,3-Dichloropropene	ND	5.77	--	ND	26.2	--		28.84
4-Methyl-2-pentanone	ND	14.4	--	ND	59.0	--		28.84
trans-1,3-Dichloropropene	ND	5.77	--	ND	26.2	--		28.84
1,1,2-Trichloroethane	ND	5.77	--	ND	31.5	--		28.84
Toluene	13.0	5.77	--	49.0	21.7	--		28.84
2-Hexanone	ND	5.77	--	ND	23.6	--		28.84
Dibromochloromethane	ND	5.77	--	ND	49.2	--		28.84
1,2-Dibromoethane	ND	5.77	--	ND	44.3	--		28.84
Tetrachloroethene	55.1	5.77	--	374	39.1	--		28.84
Chlorobenzene	ND	5.77	--	ND	26.6	--		28.84
Ethylbenzene	ND	5.77	--	ND	25.1	--		28.84
p/m-Xylene	ND	11.5	--	ND	50.0	--		28.84
Bromoform	ND	5.77	--	ND	59.7	--		28.84
Styrene	ND	5.77	--	ND	24.6	--		28.84



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-01 D Date Collected: 11/22/16 08:00  
 Client ID: RAW AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	5.77	--	ND	39.6	--		28.84
o-Xylene	ND	5.77	--	ND	25.1	--		28.84
4-Ethyltoluene	ND	5.77	--	ND	28.4	--		28.84
1,3,5-Trimethylbenzene	ND	5.77	--	ND	28.4	--		28.84
1,2,4-Trimethylbenzene	ND	5.77	--	ND	28.4	--		28.84
Benzyl chloride	ND	5.77	--	ND	29.9	--		28.84
1,3-Dichlorobenzene	ND	5.77	--	ND	34.7	--		28.84
1,4-Dichlorobenzene	ND	5.77	--	ND	34.7	--		28.84
1,2-Dichlorobenzene	ND	5.77	--	ND	34.7	--		28.84
1,2,4-Trichlorobenzene	ND	5.77	--	ND	42.8	--		28.84
Hexachlorobutadiene	ND	5.77	--	ND	61.5	--		28.84

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



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

**SAMPLE RESULTS**

Lab ID: L1638270-02 D  
 Client ID: MID AIR (11/22/16)  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/02/16 00:43  
 Analyst: MB

Date Collected: 11/22/16 08:05  
 Date Received: 11/23/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	9.62	2.00	--	24.6	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	378	2.00	--	997	5.28	--		10
Ethyl Alcohol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	27.3	10.0	--	64.9	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
iso-Propyl Alcohol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	8.85	2.00	--	35.1	7.93	--		10
tert-Butyl Alcohol	9.79	5.00	--	29.7	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	2.33	2.00	--	9.24	7.93	--		10
1,1-Dichloroethane	442	2.00	--	1790	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	14.6	2.00	--	57.9	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-02 D Date Collected: 11/22/16 08:05  
 Client ID: MID AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	5.66	2.00	--	27.6	9.77	--		10
Tetrahydrofuran	16.6	5.00	--	49.0	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	2.88	2.00	--	10.2	7.05	--		10
1,1,1-Trichloroethane	980	2.00	--	5350	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	7.97	2.00	--	27.4	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	22.8	2.00	--	123	10.7	--		10
2,2,4-Trimethylpentane	3.59	2.00	--	16.8	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	6.40	2.00	--	43.4	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-02 D Date Collected: 11/22/16 08:05  
 Client ID: MID AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		60-140
Bromochloromethane	76		60-140
chlorobenzene-d5	81		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-03 D  
 Client ID: EFFLUENT AIR (11/22/16)  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/02/16 01:14  
 Analyst: MB

Date Collected: 11/22/16 08:10  
 Date Received: 11/23/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	5.48	2.00	--	14.0	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	201	2.00	--	530	5.28	--		10
Ethyl Alcohol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	ND	10.0	--	ND	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
iso-Propyl Alcohol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	8.77	2.00	--	34.8	7.93	--		10
tert-Butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	480	2.00	--	1940	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	2.38	2.00	--	9.44	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-03 D Date Collected: 11/22/16 08:10  
 Client ID: EFFLUENT AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	2.00	--	ND	9.77	--		10
Tetrahydrofuran	22.8	5.00	--	67.2	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	21.5	2.00	--	117	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	ND	2.00	--	ND	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

### SAMPLE RESULTS

Lab ID: L1638270-03 D Date Collected: 11/22/16 08:10  
 Client ID: EFFLUENT AIR (11/22/16) Date Received: 11/23/16  
 Sample Location: 1801 FALMOUTH AVE., NEW HYDE P Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	81		60-140
chlorobenzene-d5	81		60-140



Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/01/16 12:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG957230-4								
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
1,2-Dichloro-1,1,2,2-tetrafluoroethane	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
Ethyl Alcohol	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
iso-Propyl Alcohol	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
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/01/16 12:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG957230-4								
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
1,1,2-Trichloro-1,2,2-Trifluoroethane	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
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-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
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/01/16 12:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG957230-4								
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
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



Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/01/16 12:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG957230-4								
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 (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-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 (C10)	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 (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1



Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/01/16 12:33

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG957230-4								
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

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG957230-3								
Chlorodifluoromethane	84		-		70-130	-		
Propylene	97		-		70-130	-		
Propane	86		-		70-130	-		
Dichlorodifluoromethane	113		-		70-130	-		
Chloromethane	96		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	106		-		70-130	-		
Methanol	83		-		70-130	-		
Vinyl chloride	100		-		70-130	-		
1,3-Butadiene	101		-		70-130	-		
Butane	85		-		70-130	-		
Bromomethane	113		-		70-130	-		
Chloroethane	110		-		70-130	-		
Ethyl Alcohol	93		-		70-130	-		
Dichlorofluoromethane	97		-		70-130	-		
Vinyl bromide	114		-		70-130	-		
Acrolein	95		-		70-130	-		
Acetone	83		-		70-130	-		
Acetonitrile	100		-		70-130	-		
Trichlorofluoromethane	101		-		70-130	-		
iso-Propyl Alcohol	89		-		70-130	-		
Acrylonitrile	94		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG957230-3								
Pentane	85		-		70-130	-		
Ethyl ether	85		-		70-130	-		
1,1-Dichloroethene	95		-		70-130	-		
tert-Butyl Alcohol	75		-		70-130	-		
Methylene chloride	96		-		70-130	-		
3-Chloropropene	98		-		70-130	-		
Carbon disulfide	98		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		
trans-1,2-Dichloroethene	90		-		70-130	-		
1,1-Dichloroethane	98		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
Vinyl acetate	99		-		70-130	-		
2-Butanone	93		-		70-130	-		
cis-1,2-Dichloroethene	109		-		70-130	-		
Ethyl Acetate	104		-		70-130	-		
Chloroform	100		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
2,2-Dichloropropane	91		-		70-130	-		
1,2-Dichloroethane	95		-		70-130	-		
n-Hexane	88		-		70-130	-		
Isopropyl Ether	87		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Not Specified

**Lab Number:** L1638270

**Project Number:** Not Specified

**Report Date:** 12/02/16

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG957230-3								
Ethyl-Tert-Butyl-Ether	82		-		70-130	-		
1,1,1-Trichloroethane	94		-		70-130	-		
1,1-Dichloropropene	88		-		70-130	-		
Benzene	90		-		70-130	-		
Carbon tetrachloride	96		-		70-130	-		
Cyclohexane	87		-		70-130	-		
Tertiary-Amyl Methyl Ether	82		-		70-130	-		
Dibromomethane	87		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	91		-		70-130	-		
1,4-Dioxane	86		-		70-130	-		
Trichloroethene	94		-		70-130	-		
2,2,4-Trimethylpentane	88		-		70-130	-		
Methyl Methacrylate	94		-		70-130	-		
Heptane	84		-		70-130	-		
cis-1,3-Dichloropropene	98		-		70-130	-		
4-Methyl-2-pentanone	88		-		70-130	-		
trans-1,3-Dichloropropene	87		-		70-130	-		
1,1,2-Trichloroethane	97		-		70-130	-		
Toluene	107		-		70-130	-		
1,3-Dichloropropane	98		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG957230-3								
2-Hexanone	99		-		70-130	-		
Dibromochloromethane	114		-		70-130	-		
1,2-Dibromoethane	113		-		70-130	-		
Butyl Acetate	95		-		70-130	-		
Octane	96		-		70-130	-		
Tetrachloroethene	112		-		70-130	-		
1,1,1,2-Tetrachloroethane	104		-		70-130	-		
Chlorobenzene	112		-		70-130	-		
Ethylbenzene	108		-		70-130	-		
p/m-Xylene	108		-		70-130	-		
Bromoform	114		-		70-130	-		
Styrene	110		-		70-130	-		
1,1,2,2-Tetrachloroethane	121		-		70-130	-		
o-Xylene	110		-		70-130	-		
1,2,3-Trichloropropane	100		-		70-130	-		
Nonane (C9)	91		-		70-130	-		
Isopropylbenzene	105		-		70-130	-		
Bromobenzene	100		-		70-130	-		
o-Chlorotoluene	105		-		70-130	-		
n-Propylbenzene	106		-		70-130	-		
p-Chlorotoluene	97		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1638270

Project Number: Not Specified

Report Date: 12/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG957230-3								
4-Ethyltoluene	101		-		70-130	-		
1,3,5-Trimethylbenzene	109		-		70-130	-		
tert-Butylbenzene	105		-		70-130	-		
1,2,4-Trimethylbenzene	113		-		70-130	-		
Decane (C10)	97		-		70-130	-		
Benzyl chloride	115		-		70-130	-		
1,3-Dichlorobenzene	118		-		70-130	-		
1,4-Dichlorobenzene	118		-		70-130	-		
sec-Butylbenzene	104		-		70-130	-		
p-Isopropyltoluene	99		-		70-130	-		
1,2-Dichlorobenzene	117		-		70-130	-		
n-Butylbenzene	106		-		70-130	-		
1,2-Dibromo-3-chloropropane	101		-		70-130	-		
Undecane	102		-		70-130	-		
Dodecane (C12)	112		-		70-130	-		
1,2,4-Trichlorobenzene	136	Q	-		70-130	-		
Naphthalene	118		-		70-130	-		
1,2,3-Trichlorobenzene	121		-		70-130	-		
Hexachlorobutadiene	123		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1638270

Report Date: 12/02/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG957230-5 QC Sample: L1638267-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.317	0.307	ppbV	3		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	1.25	1.18	ppbV	6		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	16.1	13.8	ppbV	15		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	17.2	16.1	ppbV	7		25
Trichlorofluoromethane	15.2	14.2	ppbV	7		25
iso-Propyl Alcohol	19.7	16.5	ppbV	18		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	1.00	0.803	ppbV	22		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.279	0.269	ppbV	4		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.40	1.35	ppbV	4		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1638270

Report Date: 12/02/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG957230-5 QC Sample: L1638267-01 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	3.00	2.92	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Tetrahydrofuran	0.656	0.704	ppbV	7	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	0.870	0.858	ppbV	1	25
1,1,1-Trichloroethane	63.8	61.6	ppbV	4	25
Benzene	2.34	2.25	ppbV	4	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	1.09	1.01	ppbV	8	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	0.688	0.716	ppbV	4	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	0.759	0.713	ppbV	6	25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1638270

Report Date: 12/02/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG957230-5 QC Sample: L1638267-01 Client ID: DUP Sample					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	5.95	5.59	ppbV	6	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	6.44	6.17	ppbV	4	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	1.08	1.06	ppbV	2	25
p/m-Xylene	3.64	3.54	ppbV	3	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	1.16	1.14	ppbV	2	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.433	0.414	ppbV	4	25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1638270

Report Date: 12/02/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG957230-5 QC Sample: L1638267-01 Client ID: DUP Sample					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name:

Project Number:

Serial\_No:12021615:58  
Lab Number: L1638270

Report Date: 12/02/16

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1638270-01	RAW AIR (11/22/16)	933	6.0L Can	11/21/16	232473	L1637401-01	Pass	-29.7	-1.4	-	-	-	-
L1638270-02	MID AIR (11/22/16)	1620	6.0L Can	11/21/16	232473	L1637401-01	Pass	-29.6	-0.2	-	-	-	-
L1638270-03	EFFLUENT AIR (11/22/16)	1880	6.0L Can	11/21/16	232473	L1637401-01	Pass	-28.1	0.6	-	-	-	-



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

**Lab Number:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01  
 Client ID: CAN 1809 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 11/17/16 18:13  
 Analyst: RY

Date Collected: 11/16/16 16:00  
 Date Received: 11/17/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01 Date Collected: 11/16/16 16:00  
 Client ID: CAN 1809 SHELF 47 Date Received: 11/17/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01 Date Collected: 11/16/16 16:00  
 Client ID: CAN 1809 SHELF 47 Date Received: 11/17/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01  
 Client ID: CAN 1809 SHELF 47  
 Sample Location:

Date Collected: 11/16/16 16:00  
 Date Received: 11/17/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1637401**Project Number:** CANISTER QC BAT**Report Date:** 12/02/16**Air Canister Certification Results**

Lab ID: L1637401-01

Date Collected: 11/16/16 16:00

Client ID: CAN 1809 SHELF 47

Date Received: 11/17/16

Sample Location:

Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	105		60-140
chlorobenzene-d5	100		60-140

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

**Lab Number:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01  
 Client ID: CAN 1809 SHELF 47  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/17/16 18:13  
 Analyst: RY

Date Collected: 11/16/16 16:00  
 Date Received: 11/17/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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
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:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01 Date Collected: 11/16/16 16:00  
 Client ID: CAN 1809 SHELF 47 Date Received: 11/17/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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-Trimethylbenzene	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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1637401  
**Report Date:** 12/02/16

### Air Canister Certification Results

Lab ID: L1637401-01 Date Collected: 11/16/16 16:00  
 Client ID: CAN 1809 SHELF 47 Date Received: 11/17/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	100		60-140
bromochloromethane	103		60-140
chlorobenzene-d5	96		60-140



**Project Name:** Not Specified**Lab Number:** L1638270**Project Number:** Not Specified**Report Date:** 12/02/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1638270-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1638270-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1638270-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

#### 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.

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1638270  
**Report Date:** 12/02/16

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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, SM9222D-MF.**

### 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 1 OF 1



**CHAIN OF CUSTODY**

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

**Project Information**

Project Name:  
Project Location: 1801 Falmouth Ave New Hyde Park, NY  
Project Manager: Jessica Proscia  
ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab: 11/24/16

**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)

ALPHA Job #: 4638270

**Billing Information**

Same as Client info PO #:

**Client Information**

Client: Ca Rich Consultants, Inc  
Address: 17 DuPont Street, Plainview NY 11803  
Phone: 516-576-8844  
Fax:  
Email: JProscia@ca-rich.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Regulatory Requirements/Report Limits**

State/Fed	Program	Res / Comm

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH <small>Subtract Non-petroleum HCs</small>	Fixed Gases <small>Sulfides &amp; Mercaptans by TO-15</small>	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum										
38270.01	Raw Air (11/23/16)	11/23/16	8:00	8:00	30	5	SV	JP	6L	933	/	X				
.02	Mid Air (11/23/16)	11/23/16	8:05	8:05	30	5	SV	JP	6L	1620	/	X				
.03	Effluent Air (11/23/16)	11/23/16	8:10	8:10	20	5	SV	JP	6L	1880	/	X				

**\*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: <u>[Signature]</u>	Date/Time: <u>11/23/16 9:54</u>	Received By: <u>[Signature]</u>	Date/Time: <u>11/23/16 9:54</u>
<u>[Signature]</u>	<u>11/23/16 21:43</u>	<u>[Signature]</u>	<u>11/23/16 21:43</u>
<u>[Signature]</u>	<u>11/24/16 02:56</u>	<u>[Signature]</u>	<u>11/24/16 02:56</u>



## ANALYTICAL REPORT

Lab Number:	L1641580
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St Plainview, NY 11803
ATTN:	Charles Rich
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	12/29/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1641580-01	RAW AIR (12/21/16)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	12/21/16 08:01	12/21/16
L1641580-02	MID AIR (12/21/16)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	12/21/16 08:06	12/21/16
L1641580-03	EFFLUENT AIR (12/21/16)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	12/21/16 08:11	12/21/16



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### Case Narrative (continued)

#### Sample Receipt

#### Volatile Organics in Air

Canisters were released from the laboratory on December 19, 2016. The canister certification results are provided as an addendum.

#### Volatile Organics in Air


L1641580-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1641580-02 and -03: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

The WG965346-3 LCS recoveries for 1,2,4-Trichlorobenzene (135%) and Hexachlorobutadiene (131%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of these analytes.

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:

 Elizabeth Porta

Title: Technical Director/Representative

Date: 12/29/16

**AIR**

**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### SAMPLE RESULTS

Lab ID: L1641580-01 D  
 Client ID: RAW AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/29/16 02:04  
 Analyst: RY

Date Collected: 12/21/16 08:01  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	9.50	--	ND	47.0	--		47.48
Chloromethane	ND	9.50	--	ND	19.6	--		47.48
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	9.50	--	ND	66.4	--		47.48
Vinyl chloride	ND	9.50	--	ND	24.3	--		47.48
1,3-Butadiene	ND	9.50	--	ND	21.0	--		47.48
Bromomethane	ND	9.50	--	ND	36.9	--		47.48
Chloroethane	317	9.50	--	837	25.1	--		47.48
Ethyl Alcohol	ND	237.	--	ND	447	--		47.48
Vinyl bromide	ND	9.50	--	ND	41.5	--		47.48
Acetone	ND	47.5	--	ND	113	--		47.48
Trichlorofluoromethane	ND	9.50	--	ND	53.4	--		47.48
iso-Propyl Alcohol	ND	23.7	--	ND	58.3	--		47.48
1,1-Dichloroethene	ND	9.50	--	ND	37.7	--		47.48
tert-Butyl Alcohol	ND	23.7	--	ND	71.8	--		47.48
Methylene chloride	ND	23.7	--	ND	82.3	--		47.48
3-Chloropropene	ND	9.50	--	ND	29.7	--		47.48
Carbon disulfide	ND	9.50	--	ND	29.6	--		47.48
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.50	--	ND	72.8	--		47.48
trans-1,2-Dichloroethene	ND	9.50	--	ND	37.7	--		47.48
1,1-Dichloroethane	566	9.50	--	2290	38.5	--		47.48
Methyl tert butyl ether	ND	9.50	--	ND	34.3	--		47.48
2-Butanone	ND	23.7	--	ND	69.9	--		47.48
cis-1,2-Dichloroethene	32.8	9.50	--	130	37.7	--		47.48
Ethyl Acetate	ND	23.7	--	ND	85.4	--		47.48



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

**SAMPLE RESULTS**

Lab ID: L1641580-01 D  
 Client ID: RAW AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 12/21/16 08:01  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	9.50	--	ND	46.4	--		47.48
Tetrahydrofuran	ND	23.7	--	ND	69.9	--		47.48
1,2-Dichloroethane	ND	9.50	--	ND	38.5	--		47.48
n-Hexane	16.2	9.50	--	57.1	33.5	--		47.48
1,1,1-Trichloroethane	1530	9.50	--	8350	51.8	--		47.48
Benzene	12.2	9.50	--	39.0	30.3	--		47.48
Carbon tetrachloride	ND	9.50	--	ND	59.8	--		47.48
Cyclohexane	25.2	9.50	--	86.7	32.7	--		47.48
1,2-Dichloropropane	ND	9.50	--	ND	43.9	--		47.48
Bromodichloromethane	ND	9.50	--	ND	63.6	--		47.48
1,4-Dioxane	ND	9.50	--	ND	34.2	--		47.48
Trichloroethene	91.1	9.50	--	490	51.1	--		47.48
2,2,4-Trimethylpentane	22.1	9.50	--	103	44.4	--		47.48
Heptane	ND	9.50	--	ND	38.9	--		47.48
cis-1,3-Dichloropropene	ND	9.50	--	ND	43.1	--		47.48
4-Methyl-2-pentanone	ND	23.7	--	ND	97.1	--		47.48
trans-1,3-Dichloropropene	ND	9.50	--	ND	43.1	--		47.48
1,1,2-Trichloroethane	ND	9.50	--	ND	51.8	--		47.48
Toluene	ND	9.50	--	ND	35.8	--		47.48
2-Hexanone	ND	9.50	--	ND	38.9	--		47.48
Dibromochloromethane	ND	9.50	--	ND	80.9	--		47.48
1,2-Dibromoethane	ND	9.50	--	ND	73.0	--		47.48
Tetrachloroethene	36.7	9.50	--	249	64.4	--		47.48
Chlorobenzene	ND	9.50	--	ND	43.8	--		47.48
Ethylbenzene	ND	9.50	--	ND	41.3	--		47.48
p/m-Xylene	ND	19.0	--	ND	82.5	--		47.48
Bromoform	ND	9.50	--	ND	98.2	--		47.48
Styrene	ND	9.50	--	ND	40.4	--		47.48



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### SAMPLE RESULTS

Lab ID: L1641580-01 D Date Collected: 12/21/16 08:01  
 Client ID: RAW AIR (12/21/16) Date Received: 12/21/16  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	12.2	9.50	--	83.8	65.2	--		47.48
o-Xylene	ND	9.50	--	ND	41.3	--		47.48
4-Ethyltoluene	ND	9.50	--	ND	46.7	--		47.48
1,3,5-Trimethylbenzene	ND	9.50	--	ND	46.7	--		47.48
1,2,4-Trimethylbenzene	ND	9.50	--	ND	46.7	--		47.48
Benzyl chloride	ND	9.50	--	ND	49.2	--		47.48
1,3-Dichlorobenzene	ND	9.50	--	ND	57.1	--		47.48
1,4-Dichlorobenzene	ND	9.50	--	ND	57.1	--		47.48
1,2-Dichlorobenzene	ND	9.50	--	ND	57.1	--		47.48
1,2,4-Trichlorobenzene	ND	9.50	--	ND	70.5	--		47.48
Hexachlorobutadiene	ND	9.50	--	ND	101	--		47.48

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

**SAMPLE RESULTS**

Lab ID: L1641580-02 D  
 Client ID: MID AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/29/16 00:34  
 Analyst: RY

Date Collected: 12/21/16 08:06  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.695	0.500	--	3.44	2.47	--		2.5
Chloromethane	ND	0.500	--	ND	1.03	--		2.5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.508	0.500	--	3.55	3.49	--		2.5
Vinyl chloride	1.94	0.500	--	4.96	1.28	--		2.5
1,3-Butadiene	ND	0.500	--	ND	1.11	--		2.5
Bromomethane	ND	0.500	--	ND	1.94	--		2.5
Chloroethane	133	0.500	--	351	1.32	--		2.5
Ethyl Alcohol	ND	12.5	--	ND	23.6	--		2.5
Vinyl bromide	ND	0.500	--	ND	2.19	--		2.5
Acetone	6.38	2.50	--	15.2	5.94	--		2.5
Trichlorofluoromethane	0.552	0.500	--	3.10	2.81	--		2.5
iso-Propyl Alcohol	ND	1.25	--	ND	3.07	--		2.5
1,1-Dichloroethene	2.31	0.500	--	9.16	1.98	--		2.5
tert-Butyl Alcohol	ND	1.25	--	ND	3.79	--		2.5
Methylene chloride	1.56	1.25	--	5.42	4.34	--		2.5
3-Chloropropene	ND	0.500	--	ND	1.57	--		2.5
Carbon disulfide	ND	0.500	--	ND	1.56	--		2.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.500	--	ND	3.83	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	97.7	0.500	--	395	2.02	--		2.5
Methyl tert butyl ether	ND	0.500	--	ND	1.80	--		2.5
2-Butanone	ND	1.25	--	ND	3.69	--		2.5
cis-1,2-Dichloroethene	1.74	0.500	--	6.90	1.98	--		2.5
Ethyl Acetate	ND	1.25	--	ND	4.50	--		2.5



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

**SAMPLE RESULTS**

Lab ID: L1641580-02 D  
 Client ID: MID AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 12/21/16 08:06  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.740	0.500	--	3.61	2.44	--		2.5
Tetrahydrofuran	ND	1.25	--	ND	3.69	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
n-Hexane	ND	0.500	--	ND	1.76	--		2.5
1,1,1-Trichloroethane	93.0	0.500	--	507	2.73	--		2.5
Benzene	ND	0.500	--	ND	1.60	--		2.5
Carbon tetrachloride	ND	0.500	--	ND	3.15	--		2.5
Cyclohexane	0.515	0.500	--	1.77	1.72	--		2.5
1,2-Dichloropropane	ND	0.500	--	ND	2.31	--		2.5
Bromodichloromethane	ND	0.500	--	ND	3.35	--		2.5
1,4-Dioxane	ND	0.500	--	ND	1.80	--		2.5
Trichloroethene	ND	0.500	--	ND	2.69	--		2.5
2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--		2.5
Heptane	ND	0.500	--	ND	2.05	--		2.5
cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--		2.5
trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Toluene	ND	0.500	--	ND	1.88	--		2.5
2-Hexanone	ND	0.500	--	ND	2.05	--		2.5
Dibromochloromethane	ND	0.500	--	ND	4.26	--		2.5
1,2-Dibromoethane	ND	0.500	--	ND	3.84	--		2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
Ethylbenzene	ND	0.500	--	ND	2.17	--		2.5
p/m-Xylene	ND	1.00	--	ND	4.34	--		2.5
Bromoform	ND	0.500	--	ND	5.17	--		2.5
Styrene	ND	0.500	--	ND	2.13	--		2.5





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### SAMPLE RESULTS

Lab ID: L1641580-02 D  
 Client ID: MID AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 12/21/16 08:06  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--		2.5
o-Xylene	ND	0.500	--	ND	2.17	--		2.5
4-Ethyltoluene	ND	0.500	--	ND	2.46	--		2.5
1,3,5-Trimethylbenzene	ND	0.500	--	ND	2.46	--		2.5
1,2,4-Trimethylbenzene	ND	0.500	--	ND	2.46	--		2.5
Benzyl chloride	ND	0.500	--	ND	2.59	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
Hexachlorobutadiene	ND	0.500	--	ND	5.33	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### SAMPLE RESULTS

Lab ID: L1641580-03 D  
 Client ID: EFFLUENT AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/29/16 01:34  
 Analyst: RY

Date Collected: 12/21/16 08:11  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1.00	--	ND	4.94	--		5
Chloromethane	ND	1.00	--	ND	2.07	--		5
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	1.00	--	ND	6.99	--		5
Vinyl chloride	2.24	1.00	--	5.73	2.56	--		5
1,3-Butadiene	ND	1.00	--	ND	2.21	--		5
Bromomethane	ND	1.00	--	ND	3.88	--		5
Chloroethane	225	1.00	--	594	2.64	--		5
Ethyl Alcohol	ND	25.0	--	ND	47.1	--		5
Vinyl bromide	ND	1.00	--	ND	4.37	--		5
Acetone	ND	5.00	--	ND	11.9	--		5
Trichlorofluoromethane	ND	1.00	--	ND	5.62	--		5
iso-Propyl Alcohol	ND	2.50	--	ND	6.15	--		5
1,1-Dichloroethene	ND	1.00	--	ND	3.96	--		5
tert-Butyl Alcohol	ND	2.50	--	ND	7.58	--		5
Methylene chloride	ND	2.50	--	ND	8.69	--		5
3-Chloropropene	ND	1.00	--	ND	3.13	--		5
Carbon disulfide	ND	1.00	--	ND	3.11	--		5
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.00	--	ND	7.66	--		5
trans-1,2-Dichloroethene	ND	1.00	--	ND	3.96	--		5
1,1-Dichloroethane	ND	1.00	--	ND	4.05	--		5
Methyl tert butyl ether	ND	1.00	--	ND	3.61	--		5
2-Butanone	ND	2.50	--	ND	7.37	--		5
cis-1,2-Dichloroethene	ND	1.00	--	ND	3.96	--		5
Ethyl Acetate	ND	2.50	--	ND	9.01	--		5



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

**SAMPLE RESULTS**

Lab ID: L1641580-03 D  
 Client ID: EFFLUENT AIR (12/21/16)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 12/21/16 08:11  
 Date Received: 12/21/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Chloroform	ND	1.00	--	ND	4.88	--		5
Tetrahydrofuran	ND	2.50	--	ND	7.37	--		5
1,2-Dichloroethane	ND	1.00	--	ND	4.05	--		5
n-Hexane	ND	1.00	--	ND	3.52	--		5
1,1,1-Trichloroethane	ND	1.00	--	ND	5.46	--		5
Benzene	ND	1.00	--	ND	3.19	--		5
Carbon tetrachloride	ND	1.00	--	ND	6.29	--		5
Cyclohexane	ND	1.00	--	ND	3.44	--		5
1,2-Dichloropropane	ND	1.00	--	ND	4.62	--		5
Bromodichloromethane	ND	1.00	--	ND	6.70	--		5
1,4-Dioxane	ND	1.00	--	ND	3.60	--		5
Trichloroethene	ND	1.00	--	ND	5.37	--		5
2,2,4-Trimethylpentane	ND	1.00	--	ND	4.67	--		5
Heptane	ND	1.00	--	ND	4.10	--		5
cis-1,3-Dichloropropene	ND	1.00	--	ND	4.54	--		5
4-Methyl-2-pentanone	ND	2.50	--	ND	10.2	--		5
trans-1,3-Dichloropropene	ND	1.00	--	ND	4.54	--		5
1,1,2-Trichloroethane	ND	1.00	--	ND	5.46	--		5
Toluene	ND	1.00	--	ND	3.77	--		5
2-Hexanone	ND	1.00	--	ND	4.10	--		5
Dibromochloromethane	ND	1.00	--	ND	8.52	--		5
1,2-Dibromoethane	ND	1.00	--	ND	7.69	--		5
Tetrachloroethene	ND	1.00	--	ND	6.78	--		5
Chlorobenzene	ND	1.00	--	ND	4.61	--		5
Ethylbenzene	ND	1.00	--	ND	4.34	--		5
p/m-Xylene	ND	2.00	--	ND	8.69	--		5
Bromoform	ND	1.00	--	ND	10.3	--		5
Styrene	ND	1.00	--	ND	4.26	--		5



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

### SAMPLE RESULTS

Lab ID: L1641580-03 D Date Collected: 12/21/16 08:11  
 Client ID: EFFLUENT AIR (12/21/16) Date Received: 12/21/16  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	1.00	--	ND	6.87	--		5
o-Xylene	ND	1.00	--	ND	4.34	--		5
4-Ethyltoluene	ND	1.00	--	ND	4.92	--		5
1,3,5-Trimethylbenzene	ND	1.00	--	ND	4.92	--		5
1,2,4-Trimethylbenzene	ND	1.00	--	ND	4.92	--		5
Benzyl chloride	ND	1.00	--	ND	5.18	--		5
1,3-Dichlorobenzene	ND	1.00	--	ND	6.01	--		5
1,4-Dichlorobenzene	ND	1.00	--	ND	6.01	--		5
1,2-Dichlorobenzene	ND	1.00	--	ND	6.01	--		5
1,2,4-Trichlorobenzene	ND	1.00	--	ND	7.42	--		5
Hexachlorobutadiene	ND	1.00	--	ND	10.7	--		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140



Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/28/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG965346-4								
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
1,2-Dichloro-1,1,2,2-tetrafluoroethane	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
Ethyl Alcohol	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
iso-Propyl Alcohol	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
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/28/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG965346-4								
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
1,1,2-Trichloro-1,2,2-Trifluoroethane	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
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-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
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/28/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG965346-4								
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
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



Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/28/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG965346-4								
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 (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-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 (C10)	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 (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1





Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/28/16 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG965346-4								
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

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG965346-3								
Chlorodifluoromethane	91		-		70-130	-		
Propylene	97		-		70-130	-		
Propane	84		-		70-130	-		
Dichlorodifluoromethane	118		-		70-130	-		
Chloromethane	100		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	114		-		70-130	-		
Methanol	88		-		70-130	-		
Vinyl chloride	104		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Butane	90		-		70-130	-		
Bromomethane	108		-		70-130	-		
Chloroethane	100		-		70-130	-		
Ethyl Alcohol	97		-		70-130	-		
Dichlorofluoromethane	100		-		70-130	-		
Vinyl bromide	111		-		70-130	-		
Acrolein	85		-		70-130	-		
Acetone	92		-		70-130	-		
Acetonitrile	91		-		70-130	-		
Trichlorofluoromethane	114		-		70-130	-		
iso-Propyl Alcohol	96		-		70-130	-		
Acrylonitrile	87		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG965346-3								
Pentane	82		-		70-130	-		
Ethyl ether	83		-		70-130	-		
1,1-Dichloroethene	101		-		70-130	-		
tert-Butyl Alcohol	86		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	96		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	107		-		70-130	-		
trans-1,2-Dichloroethene	87		-		70-130	-		
1,1-Dichloroethane	97		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
Vinyl acetate	121		-		70-130	-		
2-Butanone	93		-		70-130	-		
cis-1,2-Dichloroethene	110		-		70-130	-		
Ethyl Acetate	101		-		70-130	-		
Chloroform	104		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
2,2-Dichloropropane	98		-		70-130	-		
1,2-Dichloroethane	107		-		70-130	-		
n-Hexane	85		-		70-130	-		
Isopropyl Ether	89		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG965346-3								
Ethyl-Tert-Butyl-Ether	84		-		70-130	-		
1,1,1-Trichloroethane	109		-		70-130	-		
1,1-Dichloropropene	89		-		70-130	-		
Benzene	89		-		70-130	-		
Carbon tetrachloride	114		-		70-130	-		
Cyclohexane	84		-		70-130	-		
Tertiary-Amyl Methyl Ether	85		-		70-130	-		
Dibromomethane	96		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	94		-		70-130	-		
Trichloroethene	107		-		70-130	-		
2,2,4-Trimethylpentane	88		-		70-130	-		
Methyl Methacrylate	100		-		70-130	-		
Heptane	86		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	94		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	89		-		70-130	-		
1,3-Dichloropropane	82		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG965346-3								
2-Hexanone	88		-		70-130	-		
Dibromochloromethane	103		-		70-130	-		
1,2-Dibromoethane	96		-		70-130	-		
Butyl Acetate	74		-		70-130	-		
Octane	77		-		70-130	-		
Tetrachloroethene	105		-		70-130	-		
1,1,1,2-Tetrachloroethane	94		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	91		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	110		-		70-130	-		
Styrene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	94		-		70-130	-		
o-Xylene	96		-		70-130	-		
1,2,3-Trichloropropane	82		-		70-130	-		
Nonane (C9)	79		-		70-130	-		
Isopropylbenzene	92		-		70-130	-		
Bromobenzene	86		-		70-130	-		
o-Chlorotoluene	93		-		70-130	-		
n-Propylbenzene	92		-		70-130	-		
p-Chlorotoluene	87		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1641580

Project Number: Not Specified

Report Date: 12/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG965346-3								
4-Ethyltoluene	93		-		70-130	-		
1,3,5-Trimethylbenzene	97		-		70-130	-		
tert-Butylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	103		-		70-130	-		
Decane (C10)	82		-		70-130	-		
Benzyl chloride	104		-		70-130	-		
1,3-Dichlorobenzene	108		-		70-130	-		
1,4-Dichlorobenzene	108		-		70-130	-		
sec-Butylbenzene	92		-		70-130	-		
p-Isopropyltoluene	89		-		70-130	-		
1,2-Dichlorobenzene	108		-		70-130	-		
n-Butylbenzene	94		-		70-130	-		
1,2-Dibromo-3-chloropropane	99		-		70-130	-		
Undecane	86		-		70-130	-		
Dodecane (C12)	98		-		70-130	-		
1,2,4-Trichlorobenzene	135	Q	-		70-130	-		
Naphthalene	106		-		70-130	-		
1,2,3-Trichlorobenzene	119		-		70-130	-		
Hexachlorobutadiene	131	Q	-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1641580

Report Date: 12/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG965346-5 QC Sample: L1641580-02 Client ID: MID AIR (12/21/16)						
Dichlorodifluoromethane	0.695	0.870	ppbV	22		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.508	ND	ppbV	NC		25
Vinyl chloride	1.94	2.00	ppbV	3		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	133	131	ppbV	2		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	6.38	6.54	ppbV	2		25
Trichlorofluoromethane	0.552	0.558	ppbV	1		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	2.31	2.32	ppbV	0		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	1.56	1.48	ppbV	5		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1641580

Report Date: 12/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG965346-5 QC Sample: L1641580-02 Client ID: MID AIR (12/21/16)					
1,1-Dichloroethane	97.7	97.9	ppbV	0	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	1.74	1.69	ppbV	3	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.740	0.808	ppbV	9	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	93.0	94.8	ppbV	2	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	0.515	0.585	ppbV	13	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25



## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1641580

Report Date: 12/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG965346-5 QC Sample: L1641580-02 Client ID: MID AIR (12/21/16)					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	ND	ND	ppbV	NC	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1641580

Report Date: 12/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG965346-5 QC Sample: L1641580-02 Client ID: MID AIR (12/21/16)					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name:

Project Number:

Serial\_No:12291615:49  
Lab Number: L1641580

Report Date: 12/29/16

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1641580-01	RAW AIR (12/21/16)	1988	6.0L Can	12/19/16	234016	L1640777-02	Pass	-30.0	-1.5	-	-	-	-
L1641580-02	MID AIR (12/21/16)	990	6.0L Can	12/19/16	234016	L1640777-02	Pass	-30.0	1.7	-	-	-	-
L1641580-03	EFFLUENT AIR (12/21/16)	782	6.0L Can	12/19/16	234016	L1640777-03	Pass	-30.0	-0.3	-	-	-	-

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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02  
 Client ID: CAN599 SHELF 57  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/15/16 18:05  
 Analyst: MB

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02 Date Collected: 12/14/16 16:00  
 Client ID: CAN599 SHELF 57 Date Received: 12/15/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02      Date Collected: 12/14/16 16:00  
 Client ID: CAN599 SHELF 57      Date Received: 12/15/16  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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
1,1,1,2,2-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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02  
 Client ID: CAN599 SHELF 57  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02 Date Collected: 12/14/16 16:00  
 Client ID: CAN599 SHELF 57 Date Received: 12/15/16  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140



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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02  
 Client ID: CAN599 SHELF 57  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/15/16 18:05  
 Analyst: MB

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02 Date Collected: 12/14/16 16:00  
 Client ID: CAN599 SHELF 57 Date Received: 12/15/16  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-02  
 Client ID: CAN599 SHELF 57  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	98		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/15/16 20:21  
 Analyst: MB

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID:	L1640777-03	Date Collected:	12/14/16 16:00
Client ID:	CAN 969 SHELF 58	Date Received:	12/15/16
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140





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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/15/16 20:21  
 Analyst: MB

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1640777  
**Report Date:** 12/29/16

### Air Canister Certification Results

Lab ID: L1640777-03  
 Client ID: CAN 969 SHELF 58  
 Sample Location:

Date Collected: 12/14/16 16:00  
 Date Received: 12/15/16  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	93		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140



**Project Name:** Not Specified**Lab Number:** L1641580**Project Number:** Not Specified**Report Date:** 12/29/16**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1641580-01A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1641580-02A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1641580-03A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

#### 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.

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1641580  
**Report Date:** 12/29/16

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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, SM9222D-MF.**

### 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 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 12/22/16

ALPHA Job #: 11 641580

**Client Information**

Client: Ca Rich Consultants  
 Address: 17 DuPont Street  
 Plainview NY 11803  
 Phone: 516-576-8844  
 Fax: 516-576-0093  
 Email: JProscia@CANCINC.COM

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Ave  
 Project #: New Hyde Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

**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

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved)

Date Due: Time:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**ANALYSIS**

TO-15  
 TO-15 SIM  
 APH  
 Subnet Non-petroleum HCs  
 Fixed Gases  
 Sulfides & Mercaptans by TO-15

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS					Sample Comments (i.e. PID)
		End Date	Start Time	End Time									TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	
11580-01	RAW Air (12/21/16)	12/21/16	8:00	8:01	30	4	SV	JP	6L	1988	/	X						
02	Mid Air (12/21/16)	12/21/16	8:05	8:06	30	4	SV	JP	6L	990	/	X						
03	Affluent Air (12/21/16)	12/21/16	8:10	8:11	30	4	SV	JP	6L	782	/	X						

**\*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

Bob Johnson  
 H-Vlachos

12/21/16 16:30  
 12/22/16 01:45

Rod Johnson  
 H-Vlachos  
 Susan Breda

12/21/16 11:33  
 12/21/16 2:45  
 12/22/16 01:45



## ANALYTICAL REPORT

Lab Number:	L1702851
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	02/07/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1702851-01	RAW AIR (1/27/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	01/27/17 08:01	01/27/17
L1702851-02	MID AIR (1/27/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	01/27/17 08:05	01/27/17
L1702851-03	EFFLUENT AIR (1/27/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	01/27/17 08:10	01/27/17

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### 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.

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**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on January 23, 2017. The canister certification results are provided as an addendum.

Sample L1702851-01 and -02: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1702851-02 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample L1702851-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

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: 02/07/17

**AIR**

**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### SAMPLE RESULTS

Lab ID: L1702851-01 D  
 Client ID: RAW AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/07/17 03:02  
 Analyst: MB

Date Collected: 01/27/17 08:01  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	3.98	--	ND	19.7	--		19.92
Chloromethane	ND	3.98	--	ND	8.22	--		19.92
Freon-114	ND	3.98	--	ND	27.8	--		19.92
Vinyl chloride	ND	3.98	--	ND	10.2	--		19.92
1,3-Butadiene	ND	3.98	--	ND	8.80	--		19.92
Bromomethane	ND	3.98	--	ND	15.5	--		19.92
Chloroethane	47.0	3.98	--	124	10.5	--		19.92
Ethanol	ND	99.6	--	ND	188	--		19.92
Vinyl bromide	ND	3.98	--	ND	17.4	--		19.92
Acetone	ND	19.9	--	ND	47.3	--		19.92
Trichlorofluoromethane	ND	3.98	--	ND	22.4	--		19.92
Isopropanol	ND	9.96	--	ND	24.5	--		19.92
1,1-Dichloroethene	6.18	3.98	--	24.5	15.8	--		19.92
Tertiary butyl Alcohol	ND	9.96	--	ND	30.2	--		19.92
Methylene chloride	ND	9.96	--	ND	34.6	--		19.92
3-Chloropropene	ND	3.98	--	ND	12.5	--		19.92
Carbon disulfide	ND	3.98	--	ND	12.4	--		19.92
Freon-113	ND	3.98	--	ND	30.5	--		19.92
trans-1,2-Dichloroethene	ND	3.98	--	ND	15.8	--		19.92
1,1-Dichloroethane	285	3.98	--	1150	16.1	--		19.92
Methyl tert butyl ether	ND	3.98	--	ND	14.3	--		19.92
2-Butanone	ND	9.96	--	ND	29.4	--		19.92
cis-1,2-Dichloroethene	14.0	3.98	--	55.5	15.8	--		19.92
Ethyl Acetate	ND	9.96	--	ND	35.9	--		19.92



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

**SAMPLE RESULTS**

Lab ID: L1702851-01 D  
 Client ID: RAW AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 01/27/17 08:01  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	7.03	3.98	--	34.3	19.4	--		19.92
Tetrahydrofuran	ND	9.96	--	ND	29.4	--		19.92
1,2-Dichloroethane	ND	3.98	--	ND	16.1	--		19.92
n-Hexane	ND	3.98	--	ND	14.0	--		19.92
1,1,1-Trichloroethane	1170	3.98	--	6380	21.7	--		19.92
Benzene	ND	3.98	--	ND	12.7	--		19.92
Carbon tetrachloride	ND	3.98	--	ND	25.0	--		19.92
Cyclohexane	8.82	3.98	--	30.4	13.7	--		19.92
1,2-Dichloropropane	ND	3.98	--	ND	18.4	--		19.92
Bromodichloromethane	ND	3.98	--	ND	26.7	--		19.92
1,4-Dioxane	ND	3.98	--	ND	14.3	--		19.92
Trichloroethene	86.1	3.98	--	463	21.4	--		19.92
2,2,4-Trimethylpentane	8.31	3.98	--	38.8	18.6	--		19.92
Heptane	ND	3.98	--	ND	16.3	--		19.92
cis-1,3-Dichloropropene	ND	3.98	--	ND	18.1	--		19.92
4-Methyl-2-pentanone	ND	9.96	--	ND	40.8	--		19.92
trans-1,3-Dichloropropene	ND	3.98	--	ND	18.1	--		19.92
1,1,2-Trichloroethane	ND	3.98	--	ND	21.7	--		19.92
Toluene	ND	3.98	--	ND	15.0	--		19.92
2-Hexanone	ND	3.98	--	ND	16.3	--		19.92
Dibromochloromethane	ND	3.98	--	ND	33.9	--		19.92
1,2-Dibromoethane	ND	3.98	--	ND	30.6	--		19.92
Tetrachloroethene	29.5	3.98	--	200	27.0	--		19.92
Chlorobenzene	ND	3.98	--	ND	18.3	--		19.92
Ethylbenzene	ND	3.98	--	ND	17.3	--		19.92
p/m-Xylene	ND	7.97	--	ND	34.6	--		19.92
Bromoform	ND	3.98	--	ND	41.2	--		19.92
Styrene	ND	3.98	--	ND	16.9	--		19.92





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### SAMPLE RESULTS

Lab ID: L1702851-01 D Date Collected: 01/27/17 08:01  
 Client ID: RAW AIR (1/27/17) Date Received: 01/27/17  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	3.98	--	ND	27.3	--		19.92
o-Xylene	ND	3.98	--	ND	17.3	--		19.92
4-Ethyltoluene	ND	3.98	--	ND	19.6	--		19.92
1,3,5-Trimethylbenzene	4.58	3.98	--	22.5	19.6	--		19.92
1,2,4-Trimethylbenzene	11.7	3.98	--	57.5	19.6	--		19.92
Benzyl chloride	ND	3.98	--	ND	20.6	--		19.92
1,3-Dichlorobenzene	ND	3.98	--	ND	23.9	--		19.92
1,4-Dichlorobenzene	ND	3.98	--	ND	23.9	--		19.92
1,2-Dichlorobenzene	ND	3.98	--	ND	23.9	--		19.92
1,2,4-Trichlorobenzene	ND	3.98	--	ND	29.5	--		19.92
Hexachlorobutadiene	ND	3.98	--	ND	42.5	--		19.92

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	87		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

**SAMPLE RESULTS**

Lab ID: L1702851-02 D  
 Client ID: MID AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/07/17 02:32  
 Analyst: MB

Date Collected: 01/27/17 08:05  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	18.5	2.00	--	48.8	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	12.4	10.0	--	29.5	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	2.66	2.00	--	10.5	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	126	2.00	--	510	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	7.92	2.00	--	31.4	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### SAMPLE RESULTS

Lab ID: L1702851-02 D Date Collected: 01/27/17 08:05  
 Client ID: MID AIR (1/27/17) Date Received: 01/27/17  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	3.32	2.00	--	16.2	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	536	2.00	--	2920	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	5.38	2.00	--	18.5	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	43.8	2.00	--	235	10.7	--		10
2,2,4-Trimethylpentane	4.92	2.00	--	23.0	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	7.74	2.00	--	52.5	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### SAMPLE RESULTS

Lab ID: L1702851-02 D  
 Client ID: MID AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 01/27/17 08:05  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	77		60-140
Bromochloromethane	78		60-140
chlorobenzene-d5	81		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

**SAMPLE RESULTS**

Lab ID: L1702851-03 D  
 Client ID: EFFLUENT AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/07/17 02:01  
 Analyst: MB

Date Collected: 01/27/17 08:10  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.592	0.250	--	2.93	1.24	--		1.25
Chloromethane	0.488	0.250	--	1.01	0.516	--		1.25
Freon-114	0.602	0.250	--	4.21	1.75	--		1.25
Vinyl chloride	0.564	0.250	--	1.44	0.639	--		1.25
1,3-Butadiene	ND	0.250	--	ND	0.553	--		1.25
Bromomethane	ND	0.250	--	ND	0.971	--		1.25
Chloroethane	21.5	0.250	--	56.7	0.660	--		1.25
Ethanol	11.7	6.25	--	22.0	11.8	--		1.25
Vinyl bromide	ND	0.250	--	ND	1.09	--		1.25
Acetone	4.49	1.25	--	10.7	2.97	--		1.25
Trichlorofluoromethane	0.841	0.250	--	4.73	1.40	--		1.25
Isopropanol	0.829	0.625	--	2.04	1.54	--		1.25
1,1-Dichloroethene	1.93	0.250	--	7.65	0.991	--		1.25
Tertiary butyl Alcohol	ND	0.625	--	ND	1.89	--		1.25
Methylene chloride	0.862	0.625	--	2.99	2.17	--		1.25
3-Chloropropene	ND	0.250	--	ND	0.783	--		1.25
Carbon disulfide	ND	0.250	--	ND	0.779	--		1.25
Freon-113	ND	0.250	--	ND	1.92	--		1.25
trans-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
1,1-Dichloroethane	32.1	0.250	--	130	1.01	--		1.25
Methyl tert butyl ether	ND	0.250	--	ND	0.901	--		1.25
2-Butanone	ND	0.625	--	ND	1.84	--		1.25
cis-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
Ethyl Acetate	ND	0.625	--	ND	2.25	--		1.25



**Project Name:****Lab Number:**

L1702851

**Project Number:** Not Specified**Report Date:**

02/07/17

**SAMPLE RESULTS**

Lab ID: L1702851-03 D  
 Client ID: EFFLUENT AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 01/27/17 08:10  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.250	--	ND	1.22	--		1.25
Tetrahydrofuran	ND	0.625	--	ND	1.84	--		1.25
1,2-Dichloroethane	ND	0.250	--	ND	1.01	--		1.25
n-Hexane	ND	0.250	--	ND	0.881	--		1.25
1,1,1-Trichloroethane	0.986	0.250	--	5.38	1.36	--		1.25
Benzene	0.798	0.250	--	2.55	0.799	--		1.25
Carbon tetrachloride	ND	0.250	--	ND	1.57	--		1.25
Cyclohexane	ND	0.250	--	ND	0.861	--		1.25
1,2-Dichloropropane	ND	0.250	--	ND	1.16	--		1.25
Bromodichloromethane	ND	0.250	--	ND	1.67	--		1.25
1,4-Dioxane	ND	0.250	--	ND	0.901	--		1.25
Trichloroethene	ND	0.250	--	ND	1.34	--		1.25
2,2,4-Trimethylpentane	ND	0.250	--	ND	1.17	--		1.25
Heptane	ND	0.250	--	ND	1.02	--		1.25
cis-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
4-Methyl-2-pentanone	ND	0.625	--	ND	2.56	--		1.25
trans-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
1,1,2-Trichloroethane	ND	0.250	--	ND	1.36	--		1.25
Toluene	ND	0.250	--	ND	0.942	--		1.25
2-Hexanone	ND	0.250	--	ND	1.02	--		1.25
Dibromochloromethane	ND	0.250	--	ND	2.13	--		1.25
1,2-Dibromoethane	ND	0.250	--	ND	1.92	--		1.25
Tetrachloroethene	ND	0.250	--	ND	1.70	--		1.25
Chlorobenzene	ND	0.250	--	ND	1.15	--		1.25
Ethylbenzene	ND	0.250	--	ND	1.09	--		1.25
p/m-Xylene	ND	0.500	--	ND	2.17	--		1.25
Bromoform	ND	0.250	--	ND	2.58	--		1.25
Styrene	ND	0.250	--	ND	1.06	--		1.25



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

### SAMPLE RESULTS

Lab ID: L1702851-03 D  
 Client ID: EFFLUENT AIR (1/27/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 01/27/17 08:10  
 Date Received: 01/27/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.250	--	ND	1.72	--		1.25
o-Xylene	ND	0.250	--	ND	1.09	--		1.25
4-Ethyltoluene	ND	0.250	--	ND	1.23	--		1.25
1,3,5-Trimethylbenzene	ND	0.250	--	ND	1.23	--		1.25
1,2,4-Trimethylbenzene	ND	0.250	--	ND	1.23	--		1.25
Benzyl chloride	ND	0.250	--	ND	1.29	--		1.25
1,3-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,4-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2,4-Trichlorobenzene	ND	0.250	--	ND	1.86	--		1.25
Hexachlorobutadiene	ND	0.250	--	ND	2.67	--		1.25

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	73		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	72		60-140



Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/06/17 15:08

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG975775-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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



Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/06/17 15:08

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG975775-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/06/17 15:08

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG975775-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG975775-3								
Chlorodifluoromethane	89		-		70-130	-		
Propylene	102		-		70-130	-		
Propane	91		-		70-130	-		
Dichlorodifluoromethane	104		-		70-130	-		
Chloromethane	104		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	102		-		70-130	-		
Methanol	101		-		70-130	-		
Vinyl chloride	103		-		70-130	-		
1,3-Butadiene	109		-		70-130	-		
Butane	100		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	98		-		70-130	-		
Ethyl Alcohol	114		-		70-130	-		
Dichlorofluoromethane	94		-		70-130	-		
Vinyl bromide	91		-		70-130	-		
Acrolein	94		-		70-130	-		
Acetone	107		-		70-130	-		
Acetonitrile	119		-		70-130	-		
Trichlorofluoromethane	89		-		70-130	-		
iso-Propyl Alcohol	104		-		70-130	-		
Acrylonitrile	104		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG975775-3								
Pentane	92		-		70-130	-		
Ethyl ether	93		-		70-130	-		
1,1-Dichloroethene	91		-		70-130	-		
tert-Butyl Alcohol	94		-		70-130	-		
Methylene chloride	109		-		70-130	-		
3-Chloropropene	107		-		70-130	-		
Carbon disulfide	82		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	85		-		70-130	-		
trans-1,2-Dichloroethene	82		-		70-130	-		
1,1-Dichloroethane	85		-		70-130	-		
Methyl tert butyl ether	75		-		70-130	-		
Vinyl acetate	108		-		70-130	-		
2-Butanone	92		-		70-130	-		
cis-1,2-Dichloroethene	97		-		70-130	-		
Ethyl Acetate	90		-		70-130	-		
Chloroform	85		-		70-130	-		
Tetrahydrofuran	86		-		70-130	-		
2,2-Dichloropropane	76		-		70-130	-		
1,2-Dichloroethane	86		-		70-130	-		
n-Hexane	106		-		70-130	-		
Isopropyl Ether	90		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG975775-3								
Ethyl-Tert-Butyl-Ether	100		-		70-130	-		
1,1,1-Trichloroethane	96		-		70-130	-		
1,1-Dichloropropene	100		-		70-130	-		
Benzene	96		-		70-130	-		
Carbon tetrachloride	107		-		70-130	-		
Cyclohexane	105		-		70-130	-		
Tertiary-Amyl Methyl Ether	88		-		70-130	-		
Dibromomethane	99		-		70-130	-		
1,2-Dichloropropane	113		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	109		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	115		-		70-130	-		
Methyl Methacrylate	131	Q	-		70-130	-		
Heptane	115		-		70-130	-		
cis-1,3-Dichloropropene	107		-		70-130	-		
4-Methyl-2-pentanone	124		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	80		-		70-130	-		
1,3-Dichloropropane	82		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1702851

Project Number: Not Specified

Report Date: 02/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG975775-3								
2-Hexanone	97		-		70-130	-		
Dibromochloromethane	87		-		70-130	-		
1,2-Dibromoethane	84		-		70-130	-		
Butyl Acetate	70		-		70-130	-		
Octane	75		-		70-130	-		
Tetrachloroethene	80		-		70-130	-		
1,1,1,2-Tetrachloroethane	78		-		70-130	-		
Chlorobenzene	88		-		70-130	-		
Ethylbenzene	81		-		70-130	-		
p/m-Xylene	84		-		70-130	-		
Bromoform	84		-		70-130	-		
Styrene	86		-		70-130	-		
1,1,1,2-Tetrachloroethane	96		-		70-130	-		
o-Xylene	88		-		70-130	-		
1,2,3-Trichloropropane	83		-		70-130	-		
Nonane (C9)	91		-		70-130	-		
Isopropylbenzene	81		-		70-130	-		
Bromobenzene	82		-		70-130	-		
o-Chlorotoluene	81		-		70-130	-		
n-Propylbenzene	81		-		70-130	-		
p-Chlorotoluene	79		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1702851

Report Date: 02/07/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG975775-3								
4-Ethyltoluene	82		-		70-130	-		
1,3,5-Trimethylbenzene	88		-		70-130	-		
tert-Butylbenzene	86		-		70-130	-		
1,2,4-Trimethylbenzene	94		-		70-130	-		
Decane (C10)	92		-		70-130	-		
Benzyl chloride	92		-		70-130	-		
1,3-Dichlorobenzene	93		-		70-130	-		
1,4-Dichlorobenzene	92		-		70-130	-		
sec-Butylbenzene	86		-		70-130	-		
p-Isopropyltoluene	79		-		70-130	-		
1,2-Dichlorobenzene	90		-		70-130	-		
n-Butylbenzene	87		-		70-130	-		
1,2-Dibromo-3-chloropropane	90		-		70-130	-		
Undecane	95		-		70-130	-		
Dodecane (C12)	108		-		70-130	-		
1,2,4-Trichlorobenzene	102		-		70-130	-		
Naphthalene	92		-		70-130	-		
1,2,3-Trichlorobenzene	86		-		70-130	-		
Hexachlorobutadiene	94		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG975775-5 QC Sample: L1703012-03 Client ID: DUP Sample						
Dichlorodifluoromethane	0.420	0.440	ppbV	5		25
Chloromethane	0.641	0.641	ppbV	0		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	50.1	48.6	ppbV	3		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	11.4	11.5	ppbV	1		25
Trichlorofluoromethane	0.208	ND	ppbV	NC		25
iso-Propyl Alcohol	57.4	57.2	ppbV	0		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25



## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1702851

Report Date: 02/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG975775-5 QC Sample: L1703012-03 Client ID: DUP Sample						
2-Butanone	3.34	3.29	ppbV	2		25
Ethyl Acetate	9.58	9.32	ppbV	3		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	2.65	2.70	ppbV	2		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.216	0.215	ppbV	0		25
2-Hexanone	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1702851

Report Date: 02/07/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG975775-5 QC Sample: L1703012-03 Client ID: DUP Sample						
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name:

Project Number:

Serial\_No:02071714:11  
Lab Number: L1702851

Report Date: 02/07/17

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1702851-01	RAW AIR (1/27/17)	2103	6.0L Can	01/23/17	235661	L1701502-03	Pass	-29.5	-1.0	-	-	-	-
L1702851-02	MID AIR (1/27/17)	1975	6.0L Can	01/23/17	235661	L1701502-03	Pass	-29.6	-2.8	-	-	-	-
L1702851-03	EFFLUENT AIR (1/27/17)	1535	6.0L Can	01/23/17	235661	L1701502-03	Pass	-29.5	-1.2	-	-	-	-

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

**Lab Number:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/17/17 17:28  
 Analyst: RY

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03 Date Collected: 01/16/17 16:00  
 Client ID: CAN 2251 SHELF 58 Date Received: 01/17/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03 Date Collected: 01/16/17 16:00  
 Client ID: CAN 2251 SHELF 58 Date Received: 01/17/17  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	97		60-140



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

**Lab Number:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/17/17 17:28  
 Analyst: RY

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.054	0.050	--	0.414	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:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-Trimethylbenzene	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:** L1701502  
**Report Date:** 02/07/17

### Air Canister Certification Results

Lab ID: L1701502-03  
 Client ID: CAN 2251 SHELF 58  
 Sample Location:

Date Collected: 01/16/17 16:00  
 Date Received: 01/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	88		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	87		60-140

**Project Name:** Not Specified**Lab Number:** L1702851**Project Number:** Not Specified**Report Date:** 02/07/17**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(*)
L1702851-01A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1702851-02A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1702851-03A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

#### 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.

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1702851  
**Report Date:** 02/07/17

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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

CHAIN OF CUSTODY

PAGE 1 OF 1

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

**Client Information**

Client: Ca Rich Consultants  
 Address: 17 DuPont Street  
Plainview NY 11803  
 Phone: 516-576-8844  
 Fax:

Email: JProscin@CarichInc.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Ave  
New Hyde Park, NY  
 Project Manager: Jessica Proscin  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: Time:

Date Rec'd in Lab: 1/28/17

**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)

ALPHA Job #: U1702851

**Billing Information**

Same as Client info PO #:

**Regulatory Requirements/Report Limits**

State/Fed Program Res / Comm

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time														
02851-01	Raw Air (1/27/17)	1/27/17	8:00	8:01	30	3	SV	JP	6L	2103	/	X						
-02	Mid Air (1/27/17)	1/27/17	8:04	8:05	30	3	SV	JP	6L	1975	/	X						
-03	Effluent Air (1/27/17)	1/27/17	8:09	8:10	30	3	SV	JP	6L	1535	/	X						

**\*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]  
 1/27/17 18:00  
 1-28-17 04:15

[Signature]  
 1/27/17 11:45  
 1/27/17 22:15  
 1/28/17 04:15



## ANALYTICAL REPORT

Lab Number:	L1705809
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	03/02/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1705809-01	RAW AIR (2/24/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	02/24/17 08:00	02/24/17
L1705809-02	MID AIR (2/24/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	02/24/17 08:02	02/24/17
L1705809-03	EFFLUENT AIR (2/24/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	02/24/17 08:10	02/24/17

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on February 21, 2017. The canister certification results are provided as an addendum.

Sample L1705809-01 and -03: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1705809-01 through -03 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample L1705809-02: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

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: 03/02/17

**AIR**

**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-01 D  
 Client ID: RAW AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/02/17 00:20  
 Analyst: MB

Date Collected: 02/24/17 08:00  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	16.9	2.00	--	44.6	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	20.5	10.0	--	48.7	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	4.97	2.00	--	19.7	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	147	2.00	--	595	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	4.64	2.00	--	18.4	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-01 D  
 Client ID: RAW AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:00  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	5.99	2.00	--	29.3	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	459	2.00	--	2500	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	24.8	2.00	--	133	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	2.41	2.00	--	9.08	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	16.5	2.00	--	112	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

### SAMPLE RESULTS

Lab ID: L1705809-01 D  
 Client ID: RAW AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:00  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	2.40	2.00	--	11.8	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	78		60-140
chlorobenzene-d5	82		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-02 D  
 Client ID: MID AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/02/17 00:51  
 Analyst: MB

Date Collected: 02/24/17 08:02  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	10.9	2.00	--	28.8	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	16.8	10.0	--	39.9	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	3.79	2.00	--	15.0	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	106	2.00	--	429	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	5.56	2.00	--	22.0	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-02 D  
 Client ID: MID AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:02  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	4.27	2.00	--	20.9	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	3.85	2.00	--	13.6	7.05	--		10
1,1,1-Trichloroethane	337	2.00	--	1840	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	3.23	2.00	--	11.1	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	31.1	2.00	--	167	10.7	--		10
2,2,4-Trimethylpentane	2.99	2.00	--	14.0	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	13.0	2.00	--	88.2	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

### SAMPLE RESULTS

Lab ID: L1705809-02 D  
 Client ID: MID AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:02  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	83		60-140
chlorobenzene-d5	84		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

### SAMPLE RESULTS

Lab ID: L1705809-03 D  
 Client ID: EFFLUENT AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/02/17 01:21  
 Analyst: MB

Date Collected: 02/24/17 08:10  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	20.8	2.00	--	54.9	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	23.0	10.0	--	54.6	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	12.7	2.00	--	50.4	7.93	--		10
Tertiary butyl Alcohol	9.65	5.00	--	29.3	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	659	2.00	--	2670	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	16.3	2.00	--	64.6	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-03 D  
 Client ID: EFFLUENT AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:10  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	9.25	2.00	--	45.2	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	975	2.00	--	5320	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	ND	2.00	--	ND	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

**SAMPLE RESULTS**

Lab ID: L1705809-03 D  
 Client ID: EFFLUENT AIR (2/24/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 02/24/17 08:10  
 Date Received: 02/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	79		60-140
chlorobenzene-d5	83		60-140



Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/01/17 14:53

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG982024-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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



Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/01/17 14:53

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG982024-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/01/17 14:53

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG982024-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG982024-3								
Chlorodifluoromethane	82		-		70-130	-		
Propylene	96		-		70-130	-		
Propane	79		-		70-130	-		
Dichlorodifluoromethane	88		-		70-130	-		
Chloromethane	87		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	96		-		70-130	-		
Methanol	73		-		70-130	-		
Vinyl chloride	93		-		70-130	-		
1,3-Butadiene	88		-		70-130	-		
Butane	81		-		70-130	-		
Bromomethane	93		-		70-130	-		
Chloroethane	91		-		70-130	-		
Ethyl Alcohol	76		-		70-130	-		
Dichlorofluoromethane	83		-		70-130	-		
Vinyl bromide	98		-		70-130	-		
Acrolein	81		-		70-130	-		
Acetone	94		-		70-130	-		
Acetonitrile	95		-		70-130	-		
Trichlorofluoromethane	95		-		70-130	-		
iso-Propyl Alcohol	78		-		70-130	-		
Acrylonitrile	92		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG982024-3								
Pentane	81		-		70-130	-		
Ethyl ether	79		-		70-130	-		
1,1-Dichloroethene	91		-		70-130	-		
tert-Butyl Alcohol	75		-		70-130	-		
Methylene chloride	91		-		70-130	-		
3-Chloropropene	93		-		70-130	-		
Carbon disulfide	90		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		
trans-1,2-Dichloroethene	89		-		70-130	-		
1,1-Dichloroethane	92		-		70-130	-		
Methyl tert butyl ether	91		-		70-130	-		
Vinyl acetate	97		-		70-130	-		
2-Butanone	85		-		70-130	-		
cis-1,2-Dichloroethene	95		-		70-130	-		
Ethyl Acetate	97		-		70-130	-		
Chloroform	96		-		70-130	-		
Tetrahydrofuran	85		-		70-130	-		
2,2-Dichloropropane	86		-		70-130	-		
1,2-Dichloroethane	91		-		70-130	-		
n-Hexane	86		-		70-130	-		
Isopropyl Ether	85		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG982024-3								
Ethyl-Tert-Butyl-Ether	79		-		70-130	-		
1,1,1-Trichloroethane	91		-		70-130	-		
1,1-Dichloropropene	87		-		70-130	-		
Benzene	88		-		70-130	-		
Carbon tetrachloride	93		-		70-130	-		
Cyclohexane	86		-		70-130	-		
Tertiary-Amyl Methyl Ether	80		-		70-130	-		
Dibromomethane	85		-		70-130	-		
1,2-Dichloropropane	90		-		70-130	-		
Bromodichloromethane	91		-		70-130	-		
1,4-Dioxane	88		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	88		-		70-130	-		
Methyl Methacrylate	92		-		70-130	-		
Heptane	82		-		70-130	-		
cis-1,3-Dichloropropene	94		-		70-130	-		
4-Methyl-2-pentanone	85		-		70-130	-		
trans-1,3-Dichloropropene	81		-		70-130	-		
1,1,2-Trichloroethane	95		-		70-130	-		
Toluene	96		-		70-130	-		
1,3-Dichloropropane	89		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG982024-3								
2-Hexanone	88		-		70-130	-		
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	100		-		70-130	-		
Butyl Acetate	82		-		70-130	-		
Octane	91		-		70-130	-		
Tetrachloroethene	103		-		70-130	-		
1,1,1,2-Tetrachloroethane	94		-		70-130	-		
Chlorobenzene	100		-		70-130	-		
Ethylbenzene	97		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	92		-		70-130	-		
o-Xylene	99		-		70-130	-		
1,2,3-Trichloropropane	87		-		70-130	-		
Nonane (C9)	85		-		70-130	-		
Isopropylbenzene	97		-		70-130	-		
Bromobenzene	90		-		70-130	-		
o-Chlorotoluene	95		-		70-130	-		
n-Propylbenzene	95		-		70-130	-		
p-Chlorotoluene	91		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1705809

Project Number: Not Specified

Report Date: 03/02/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG982024-3								
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	98		-		70-130	-		
tert-Butylbenzene	96		-		70-130	-		
1,2,4-Trimethylbenzene	102		-		70-130	-		
Decane (C10)	89		-		70-130	-		
Benzyl chloride	100		-		70-130	-		
1,3-Dichlorobenzene	104		-		70-130	-		
1,4-Dichlorobenzene	104		-		70-130	-		
sec-Butylbenzene	95		-		70-130	-		
p-Isopropyltoluene	91		-		70-130	-		
1,2-Dichlorobenzene	105		-		70-130	-		
n-Butylbenzene	96		-		70-130	-		
1,2-Dibromo-3-chloropropane	89		-		70-130	-		
Undecane	90		-		70-130	-		
Dodecane (C12)	103		-		70-130	-		
1,2,4-Trichlorobenzene	111		-		70-130	-		
Naphthalene	102		-		70-130	-		
1,2,3-Trichlorobenzene	106		-		70-130	-		
Hexachlorobutadiene	106		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1705809

Report Date: 03/02/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG982024-5 QC Sample: L1705765-01 Client ID: DUP Sample						
Dichlorodifluoromethane	ND	ND	ppbV	NC		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	306	291	ppbV	5		25
Trichlorofluoromethane	2.70	2.56	ppbV	5		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25



## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1705809

Report Date: 03/02/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG982024-5 QC Sample: L1705765-01 Client ID: DUP Sample						
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	4.80	4.55	ppbV	5		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	1.92	1.82	ppbV	5		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	1.26	1.24	ppbV	2		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	7.84	8.18	ppbV	4		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	3.78	3.60	ppbV	5		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1705809

Report Date: 03/02/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG982024-5 QC Sample: L1705765-01 Client ID: DUP Sample						
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	19.8	20.3	ppbV	2		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	24.6	24.9	ppbV	1		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	5.64	5.88	ppbV	4		25
p/m-Xylene	23.2	23.8	ppbV	3		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	7.92	8.21	ppbV	4		25
4-Ethyltoluene	2.06	2.05	ppbV	0		25
1,3,5-Trimethylbenzene	1.73	1.87	ppbV	8		25
1,2,4-Trimethylbenzene	5.78	6.02	ppbV	4		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1705809

Report Date: 03/02/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG982024-5 QC Sample: L1705765-01 Client ID: DUP Sample						
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name:

Project Number:

Serial\_No:03021714:10  
Lab Number: L1705809

Report Date: 03/02/17

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1705809-01	RAW AIR (2/24/17)	2103	6.0L Can	02/21/17	237064	L1705029-01	Pass	-30.0	-1.7	-	-	-	-
L1705809-02	MID AIR (2/24/17)	1053	6.0L Can	02/21/17	237064	L1705029-01	Pass	-30.0	-0.1	-	-	-	-
L1705809-03	EFFLUENT AIR (2/24/17)	748	6.0L Can	02/21/17	237064	L1705029-01	Pass	-30.0	-3.8	-	-	-	-

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

**Lab Number:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01  
 Client ID: CAN 1703 SHELF 46  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/17/17 09:03  
 Analyst: MB

Date Collected: 02/16/17 16:00  
 Date Received: 02/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01 Date Collected: 02/16/17 16:00  
 Client ID: CAN 1703 SHELF 46 Date Received: 02/17/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01 Date Collected: 02/16/17 16:00  
 Client ID: CAN 1703 SHELF 46 Date Received: 02/17/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01  
 Client ID: CAN 1703 SHELF 46  
 Sample Location:

Date Collected: 02/16/17 16:00  
 Date Received: 02/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01 Date Collected: 02/16/17 16:00  
 Client ID: CAN 1703 SHELF 46 Date Received: 02/17/17  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	96		60-140

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

**Lab Number:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01  
 Client ID: CAN 1703 SHELF 46  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/17/17 09:03  
 Analyst: MB

Date Collected: 02/16/17 16:00  
 Date Received: 02/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01  
 Client ID: CAN 1703 SHELF 46  
 Sample Location:

Date Collected: 02/16/17 16:00  
 Date Received: 02/17/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1705029  
**Report Date:** 03/02/17

### Air Canister Certification Results

Lab ID: L1705029-01 Date Collected: 02/16/17 16:00  
 Client ID: CAN 1703 SHELF 46 Date Received: 02/17/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	90		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	92		60-140

**Project Name:** Not Specified**Lab Number:** L1705809**Project Number:** Not Specified**Report Date:** 03/02/17**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Present/Intact

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1705809-01A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1705809-02A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1705809-03A	Canister - 6 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

#### 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.

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1705809  
**Report Date:** 03/02/17

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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

CHAIN OF CUSTODY

PAGE 1 OF 1

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

Date Rec'd in Lab: 2/25/17

ALPHA Job #: L1705809

**Client Information**

Client: Car Rich Consultants, Inc  
 Address: 17 DuPont Street  
Plainview NY 11803  
 Phone: 516-576-8844  
 Fax: 516-576-0093  
 Email: JProsicia@CarRichInc.com

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Ave  
 Project #: New Hyde Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: Time:

**Report Information - Data Deliverables**

FAX  
 eDEX  
 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

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					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	ANALYSIS					Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	
5809-01	Raw Air (2/24/17)	2/24/17	8:00	8:00	30	5	SV JP	6L	2103	-	X						
-02	Mid Air (2/24/17)	2/24/17	8:00	8:00	30	5	SV JP	6L	1053	-	X						
-03	Effluent Air (2/24/17)	2/24/17	8:10	8:10	30	5	SV JP	6L	248	-	X						

**\*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] 2/24/17 11:08 [Signature] 2/24/17 11:08  
[Signature] 2/24/17 15:30 [Signature] 2/24/17 2:30  
[Signature] 2-25-17 02:45 [Signature] 2/25/17 02:45



## ANALYTICAL REPORT

Lab Number:	L1709042
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	NEW HYDE PARK, NY
Project Number:	Not Specified
Report Date:	03/30/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1709042-01	RAW AIR (3/24/17)	SOIL_VAPOR	1801 FLMOUTH AVE	03/24/17 08:00	03/24/17
L1709042-02	MID AIR (3/24/17)	SOIL_VAPOR	1801 FLMOUTH AVE	03/24/17 08:05	03/24/17
L1709042-03	EFFLUENT AIR (3/24/17)	SOIL_VAPOR	1801 FLMOUTH AVE	03/24/17 08:10	03/24/17

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### 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.

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**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on March 23, 2017. The canister certification results are provided as an addendum.

L1709042-01 through -03: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

L1709042-03 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: 03/30/17

**AIR**

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-01 D  
 Client ID: RAW AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/27/17 22:59  
 Analyst: MB

Date Collected: 03/24/17 08:00  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	15.6	2.00	--	41.2	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	ND	10.0	--	ND	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	2.46	2.00	--	9.75	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	155	2.00	--	627	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10





**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-01 D  
 Client ID: RAW AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:00  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	2.79	2.00	--	13.6	9.77	--		10
Tetrahydrofuran	11.5	5.00	--	33.9	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	768	2.00	--	4190	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	15.2	2.00	--	81.7	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	10.6	2.00	--	71.9	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-01 D  
 Client ID: RAW AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:00  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	85		60-140



**Project Name:** NEW HYDE PARK, NY**Lab Number:** L1709042**Project Number:** Not Specified**Report Date:** 03/30/17**SAMPLE RESULTS**

Lab ID: L1709042-02 D  
 Client ID: MID AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/27/17 22:28  
 Analyst: MB

Date Collected: 03/24/17 08:05  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	ND	0.667	--	ND	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
1,3-Butadiene	ND	0.667	--	ND	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	18.4	0.667	--	48.6	1.76	--		3.333
Ethanol	28.4	16.7	--	53.5	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	ND	3.33	--	ND	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	ND	1.67	--	ND	4.10	--		3.333
1,1-Dichloroethene	1.14	0.667	--	4.52	2.64	--		3.333
Tertiary butyl Alcohol	2.30	1.67	--	6.97	5.06	--		3.333
Methylene chloride	3.50	1.67	--	12.2	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	ND	0.667	--	ND	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	106	0.667	--	429	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	ND	1.67	--	ND	4.93	--		3.333
cis-1,2-Dichloroethene	1.03	0.667	--	4.08	2.64	--		3.333
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333



**Project Name:** NEW HYDE PARK, NY**Lab Number:** L1709042**Project Number:** Not Specified**Report Date:** 03/30/17**SAMPLE RESULTS**

Lab ID: L1709042-02 D  
 Client ID: MID AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:05  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	1.38	0.667	--	6.74	3.26	--		3.333
Tetrahydrofuran	2.02	1.67	--	5.96	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	ND	0.667	--	ND	2.35	--		3.333
1,1,1-Trichloroethane	243	0.667	--	1330	3.64	--		3.333
Benzene	ND	0.667	--	ND	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	5.77	0.667	--	19.9	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	2.80	0.667	--	15.0	3.58	--		3.333
2,2,4-Trimethylpentane	0.826	0.667	--	3.86	3.12	--		3.333
Heptane	ND	0.667	--	ND	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	ND	0.667	--	ND	2.51	--		3.333
2-Hexanone	ND	0.667	--	ND	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	0.900	0.667	--	6.10	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	ND	0.667	--	ND	2.90	--		3.333
p/m-Xylene	ND	1.33	--	ND	5.78	--		3.333
Bromoform	ND	0.667	--	ND	6.90	--		3.333
Styrene	ND	0.667	--	ND	2.84	--		3.333



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-02 D  
 Client ID: MID AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:05  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.667	--	ND	4.58	--		3.333
o-Xylene	ND	0.667	--	ND	2.90	--		3.333
4-Ethyltoluene	ND	0.667	--	ND	3.28	--		3.333
1,3,5-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
1,2,4-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
Benzyl chloride	ND	0.667	--	ND	3.45	--		3.333
1,3-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,4-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2,4-Trichlorobenzene	ND	0.667	--	ND	4.95	--		3.333
Hexachlorobutadiene	ND	0.667	--	ND	7.11	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	78		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	85		60-140



**Project Name:** NEW HYDE PARK, NY**Lab Number:** L1709042**Project Number:** Not Specified**Report Date:** 03/30/17**SAMPLE RESULTS**

Lab ID: L1709042-03 D  
 Client ID: EFFLUENT AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/27/17 21:56  
 Analyst: MB

Date Collected: 03/24/17 08:10  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	ND	0.667	--	ND	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	0.776	0.667	--	1.98	1.71	--		3.333
1,3-Butadiene	ND	0.667	--	ND	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	34.8	0.667	--	91.8	1.76	--		3.333
Ethanol	ND	16.7	--	ND	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	3.90	3.33	--	9.26	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	ND	1.67	--	ND	4.10	--		3.333
1,1-Dichloroethene	1.23	0.667	--	4.88	2.64	--		3.333
Tertiary butyl Alcohol	ND	1.67	--	ND	5.06	--		3.333
Methylene chloride	ND	1.67	--	ND	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	ND	0.667	--	ND	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	54.4	0.667	--	220	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	ND	1.67	--	ND	4.93	--		3.333
cis-1,2-Dichloroethene	3.17	0.667	--	12.6	2.64	--		3.333
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-03 D  
 Client ID: EFFLUENT AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:10  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	1.85	0.667	--	9.03	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	ND	0.667	--	ND	2.35	--		3.333
1,1,1-Trichloroethane	319	0.667	--	1740	3.64	--		3.333
Benzene	ND	0.667	--	ND	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	4.63	0.667	--	15.9	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	1.22	0.667	--	6.56	3.58	--		3.333
2,2,4-Trimethylpentane	1.15	0.667	--	5.37	3.12	--		3.333
Heptane	ND	0.667	--	ND	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	ND	0.667	--	ND	2.51	--		3.333
2-Hexanone	ND	0.667	--	ND	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	ND	0.667	--	ND	2.90	--		3.333
p/m-Xylene	ND	1.33	--	ND	5.78	--		3.333
Bromoform	ND	0.667	--	ND	6.90	--		3.333
Styrene	ND	0.667	--	ND	2.84	--		3.333



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

### SAMPLE RESULTS

Lab ID: L1709042-03 D  
 Client ID: EFFLUENT AIR (3/24/17)  
 Sample Location: 1801 FLMOUTH AVE

Date Collected: 03/24/17 08:10  
 Date Received: 03/24/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.667	--	ND	4.58	--		3.333
o-Xylene	ND	0.667	--	ND	2.90	--		3.333
4-Ethyltoluene	ND	0.667	--	ND	3.28	--		3.333
1,3,5-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
1,2,4-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
Benzyl chloride	ND	0.667	--	ND	3.45	--		3.333
1,3-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,4-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2,4-Trichlorobenzene	ND	0.667	--	ND	4.95	--		3.333
Hexachlorobutadiene	ND	0.667	--	ND	7.11	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	77		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	85		60-140





Project Name: NEW HYDE PARK, NY

Lab Number: L1709042

Project Number: Not Specified

Report Date: 03/30/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/27/17 11:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG988563-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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



Project Name: NEW HYDE PARK, NY

Lab Number: L1709042

Project Number: Not Specified

Report Date: 03/30/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/27/17 11:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG988563-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: NEW HYDE PARK, NY

Lab Number: L1709042

Project Number: Not Specified

Report Date: 03/30/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/27/17 11:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG988563-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY

**Lab Number:** L1709042

**Project Number:** Not Specified

**Report Date:** 03/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG988563-3								
Chlorodifluoromethane	90		-		70-130	-		
Propylene	103		-		70-130	-		
Propane	74		-		70-130	-		
Dichlorodifluoromethane	95		-		70-130	-		
Chloromethane	98		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	108		-		70-130	-		
Methanol	75		-		70-130	-		
Vinyl chloride	102		-		70-130	-		
1,3-Butadiene	102		-		70-130	-		
Butane	81		-		70-130	-		
Bromomethane	107		-		70-130	-		
Chloroethane	106		-		70-130	-		
Ethyl Alcohol	79		-		70-130	-		
Dichlorofluoromethane	96		-		70-130	-		
Vinyl bromide	106		-		70-130	-		
Acrolein	89		-		70-130	-		
Acetone	105		-		70-130	-		
Acetonitrile	79		-		70-130	-		
Trichlorofluoromethane	106		-		70-130	-		
iso-Propyl Alcohol	88		-		70-130	-		
Acrylonitrile	91		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY

**Lab Number:** L1709042

**Project Number:** Not Specified

**Report Date:** 03/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG988563-3								
Pentane	79		-		70-130	-		
Ethyl ether	79		-		70-130	-		
1,1-Dichloroethene	101		-		70-130	-		
tert-Butyl Alcohol	80		-		70-130	-		
Methylene chloride	103		-		70-130	-		
3-Chloropropene	98		-		70-130	-		
Carbon disulfide	101		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	111		-		70-130	-		
trans-1,2-Dichloroethene	98		-		70-130	-		
1,1-Dichloroethane	102		-		70-130	-		
Methyl tert butyl ether	96		-		70-130	-		
Vinyl acetate	120		-		70-130	-		
2-Butanone	87		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		
Ethyl Acetate	108		-		70-130	-		
Chloroform	106		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
2,2-Dichloropropane	89		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	97		-		70-130	-		
Isopropyl Ether	90		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY

**Lab Number:** L1709042

**Project Number:** Not Specified

**Report Date:** 03/30/17

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG988563-3								
Ethyl-Tert-Butyl-Ether	85		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
1,1-Dichloropropene	97		-		70-130	-		
Benzene	98		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		
Cyclohexane	96		-		70-130	-		
Tertiary-Amyl Methyl Ether	85		-		70-130	-		
Dibromomethane	98		-		70-130	-		
1,2-Dichloropropane	101		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	103		-		70-130	-		
Trichloroethene	106		-		70-130	-		
2,2,4-Trimethylpentane	97		-		70-130	-		
Methyl Methacrylate	117		-		70-130	-		
Heptane	91		-		70-130	-		
cis-1,3-Dichloropropene	105		-		70-130	-		
4-Methyl-2-pentanone	92		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	106		-		70-130	-		
Toluene	115		-		70-130	-		
1,3-Dichloropropane	108		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY

**Lab Number:** L1709042

**Project Number:** Not Specified

**Report Date:** 03/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG988563-3								
2-Hexanone	107		-		70-130	-		
Dibromochloromethane	126		-		70-130	-		
1,2-Dibromoethane	121		-		70-130	-		
Butyl Acetate	106		-		70-130	-		
Octane	107		-		70-130	-		
Tetrachloroethene	121		-		70-130	-		
1,1,1,2-Tetrachloroethane	110		-		70-130	-		
Chlorobenzene	120		-		70-130	-		
Ethylbenzene	117		-		70-130	-		
p/m-Xylene	116		-		70-130	-		
Bromoform	123		-		70-130	-		
Styrene	116		-		70-130	-		
1,1,2,2-Tetrachloroethane	123		-		70-130	-		
o-Xylene	118		-		70-130	-		
1,2,3-Trichloropropane	108		-		70-130	-		
Nonane (C9)	97		-		70-130	-		
Isopropylbenzene	113		-		70-130	-		
Bromobenzene	106		-		70-130	-		
o-Chlorotoluene	110		-		70-130	-		
n-Propylbenzene	103		-		70-130	-		
p-Chlorotoluene	109		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY

**Lab Number:** L1709042

**Project Number:** Not Specified

**Report Date:** 03/30/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG988563-3								
4-Ethyltoluene	115		-		70-130	-		
1,3,5-Trimethylbenzene	116		-		70-130	-		
tert-Butylbenzene	113		-		70-130	-		
1,2,4-Trimethylbenzene	122		-		70-130	-		
Decane (C10)	105		-		70-130	-		
Benzyl chloride	112		-		70-130	-		
1,3-Dichlorobenzene	120		-		70-130	-		
1,4-Dichlorobenzene	120		-		70-130	-		
sec-Butylbenzene	111		-		70-130	-		
p-Isopropyltoluene	106		-		70-130	-		
1,2-Dichlorobenzene	120		-		70-130	-		
n-Butylbenzene	115		-		70-130	-		
1,2-Dibromo-3-chloropropane	106		-		70-130	-		
Undecane	110		-		70-130	-		
Dodecane (C12)	115		-		70-130	-		
1,2,4-Trichlorobenzene	124		-		70-130	-		
Naphthalene	104		-		70-130	-		
1,2,3-Trichlorobenzene	112		-		70-130	-		
Hexachlorobutadiene	123		-		70-130	-		



## Lab Duplicate Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG988563-5 QC Sample: L1708775-01 Client ID: DUP Sample						
Propylene	ND	ND	ppbV	NC		25
Dichlorodifluoromethane	0.238	0.258	ppbV	8		25
Chloromethane	0.302	0.331	ppbV	9		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
Trichlorofluoromethane	0.263	0.263	ppbV	0		25
iso-Propyl Alcohol	1.14	1.13	ppbV	1		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	0.808	0.780	ppbV	4		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG988563-5 QC Sample: L1708775-01 Client ID: DUP Sample						
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
Vinyl acetate	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
Xylene (Total)	0.288	0.256	ppbV	12		25
1,4-Dioxane	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG988563-5 QC Sample: L1708775-01 Client ID: DUP Sample						
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.215	0.204	ppbV	5		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG988563-5 QC Sample: L1708775-01 Client ID: DUP Sample						
o-Chlorotoluene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: NEW HYDE PARK, NY

Serial\_No:03301718:31  
Lab Number: L1709042

Project Number:

Report Date: 03/30/17

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1709042-01	RAW AIR (3/24/17)	1696	6.0L Can	03/23/17	238641	L1708307-02	Pass	-29.5	-0.4	-	-	-	-
L1709042-02	MID AIR (3/24/17)	629	6.0L Can	03/23/17	238641	L1708307-02	Pass	-29.5	-0.1	-	-	-	-
L1709042-03	EFFLUENT AIR (3/24/17)	584	6.0L Can	03/23/17	238641	L1708307-02	Pass	-29.7	-2.8	-	-	-	-

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

**Lab Number:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02  
 Client ID: CAN 2323 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 03/20/17 15:57  
 Analyst: MB

Date Collected: 03/20/17 09:00  
 Date Received: 03/20/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02 Date Collected: 03/20/17 09:00  
 Client ID: CAN 2323 SHELF 58 Date Received: 03/20/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02 Date Collected: 03/20/17 09:00  
 Client ID: CAN 2323 SHELF 58 Date Received: 03/20/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02  
 Client ID: CAN 2323 SHELF 58  
 Sample Location:

Date Collected: 03/20/17 09:00  
 Date Received: 03/20/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02 Date Collected: 03/20/17 09:00  
 Client ID: CAN 2323 SHELF 58 Date Received: 03/20/17  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	83		60-140

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

**Lab Number:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02  
 Client ID: CAN 2323 SHELF 58  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 03/20/17 15:57  
 Analyst: MB

Date Collected: 03/20/17 09:00  
 Date Received: 03/20/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02 Date Collected: 03/20/17 09:00  
 Client ID: CAN 2323 SHELF 58 Date Received: 03/20/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1708307  
**Report Date:** 03/30/17

### Air Canister Certification Results

Lab ID: L1708307-02 Date Collected: 03/20/17 09:00  
 Client ID: CAN 2323 SHELF 58 Date Received: 03/20/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	82		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	84		60-140

**Project Name:** NEW HYDE PARK, NY**Lab Number:** L1709042**Project Number:** Not Specified**Report Date:** 03/30/17**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Present/Intact

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1709042-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1709042-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1709042-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

## 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:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

#### 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.



**Project Name:** NEW HYDE PARK, NY  
**Project Number:** Not Specified

**Lab Number:** L1709042  
**Report Date:** 03/30/17

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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.



**CHAIN OF CUSTODY**

**AIR ANALYSIS**

PAGE 1 OF 1

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

Date Rec'd in Lab: 3/25/17

ALPHA Job #: U1709042

**Client Information**

Client: Ca Rich Consultants  
 Address: 17 DuPont St  
Plainville, NY  
 Phone: 516-576-8844

**Project Information**

Project Name:  
 Project Location: 1801 Falmouth Ave  
~~Project #:~~ New Hyde Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

**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

Fax:

Email: JProscia@carichinc.com

These samples have been previously analyzed by Alpha

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved!)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**ANALYSIS**

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum													
904-01	Raw Air (3/24/17)	3/24/17	8 am	8 am	30	4	SV	JP	6L	696	/	X							
-02	Mid Air (3/24/17)	3/24/17	8:05	8:05	30	4	SV	JP	6L	629	/	X							
-03	Effluent Air (3/24/17)	3/24/17	8:10	8:10	30	4	SV	JP	6L	584	/	X							

**\*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

Paul Mazzella  
3/24/17 1610

3/24/17 2224  
3-25-17 0330

Paul Mazzella  
3/24/17 2224  
Bethy Bedard

3/24/17 1610  
3-24-17 2224  
3/25/17 03:30



## ANALYTICAL REPORT

Lab Number:	L1713606
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	05/04/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1713606-01	RAW AIR (4/28/17)	SOIL_VAPOR	1801 FLMOUTH AVE NEW HYDE PARK, NY	04/28/17 08:00	04/28/17
L1713606-02	MID AIR (4/28/17)	SOIL_VAPOR	1801 FLMOUTH AVE NEW HYDE PARK, NY	04/28/17 08:08	04/28/17
L1713606-03	EFFLUENT AIR (4/28/17)	SOIL_VAPOR	1801 FLMOUTH AVE NEW HYDE PARK, NY	04/28/17 08:15	04/28/17

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on April 27, 2017. The canister certification results are provided as an addendum.

Sample L1713606-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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: 05/04/17

**AIR**



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### SAMPLE RESULTS

Lab ID: L1713606-01 D  
 Client ID: RAW AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/04/17 01:19  
 Analyst: MB

Date Collected: 04/28/17 08:00  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	2.00	--	ND	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	ND	2.00	--	ND	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	16.8	2.00	--	44.3	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	ND	10.0	--	ND	23.8	--		10
Trichlorofluoromethane	ND	2.00	--	ND	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	4.35	2.00	--	17.2	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	147	2.00	--	595	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	3.69	2.00	--	14.6	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

**SAMPLE RESULTS**

Lab ID: L1713606-01 D  
 Client ID: RAW AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:00  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	5.67	2.00	--	27.7	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	ND	2.00	--	ND	7.05	--		10
1,1,1-Trichloroethane	479	2.00	--	2610	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	23.8	2.00	--	128	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	ND	2.00	--	ND	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	17.4	2.00	--	118	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### SAMPLE RESULTS

Lab ID: L1713606-01 D  
 Client ID: RAW AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:00  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	ND	2.00	--	ND	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	108		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### SAMPLE RESULTS

Lab ID: L1713606-02  
 Client ID: MID AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/04/17 01:52  
 Analyst: MB

Date Collected: 04/28/17 08:08  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.501	0.200	--	2.48	0.989	--		1
Chloromethane	0.499	0.200	--	1.03	0.413	--		1
Freon-114	0.300	0.200	--	2.10	1.40	--		1
Vinyl chloride	0.308	0.200	--	0.787	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	10.0	0.200	--	26.4	0.528	--		1
Ethanol	31.8	5.00	--	59.9	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	4.43	1.00	--	10.5	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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
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



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

**SAMPLE RESULTS**

Lab ID: L1713606-02  
 Client ID: MID AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:08  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.691	0.500	--	2.04	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	0.204	0.200	--	1.11	1.09	--		1
Benzene	0.214	0.200	--	0.684	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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	0.390	0.200	--	1.47	0.754	--		1
2-Hexanone	0.274	0.200	--	1.12	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.463	0.400	--	2.01	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### SAMPLE RESULTS

Lab ID: L1713606-02  
 Client ID: MID AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:08  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.275	0.200	--	1.35	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	108		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	93		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

**SAMPLE RESULTS**

Lab ID: L1713606-03  
 Client ID: EFFLUENT AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/04/17 02:25  
 Analyst: MB

Date Collected: 04/28/17 08:15  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.761	0.200	--	3.76	0.989	--		1
Chloromethane	0.466	0.200	--	0.962	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	0.335	0.200	--	0.856	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	15.8	0.200	--	41.7	0.528	--		1
Ethanol	29.0	5.00	--	54.6	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.66	1.00	--	3.94	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	0.502	0.500	--	1.23	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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
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



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

**SAMPLE RESULTS**

Lab ID: L1713606-03  
 Client ID: EFFLUENT AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:15  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.21	0.200	--	3.87	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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	0.500	0.200	--	1.88	0.754	--		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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.497	0.400	--	2.16	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

### SAMPLE RESULTS

Lab ID: L1713606-03  
 Client ID: EFFLUENT AIR (4/28/17)  
 Sample Location: 1801 FLMOUTH AVE NEW HYDE PARK

Date Collected: 04/28/17 08:15  
 Date Received: 04/28/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.302	0.200	--	1.48	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	107		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140



Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 05/03/17 14:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG999981-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 05/03/17 14:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG999981-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 05/03/17 14:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG999981-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-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



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG999981-3								
Chlorodifluoromethane	90		-		70-130	-		
Propylene	109		-		70-130	-		
Propane	87		-		70-130	-		
Dichlorodifluoromethane	83		-		70-130	-		
Chloromethane	102		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		
Methanol	91		-		70-130	-		
Vinyl chloride	102		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Butane	99		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	99		-		70-130	-		
Ethyl Alcohol	97		-		70-130	-		
Dichlorofluoromethane	88		-		70-130	-		
Vinyl bromide	92		-		70-130	-		
Acrolein	83		-		70-130	-		
Acetone	115		-		70-130	-		
Acetonitrile	99		-		70-130	-		
Trichlorofluoromethane	102		-		70-130	-		
iso-Propyl Alcohol	100		-		70-130	-		
Acrylonitrile	95		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG999981-3								
Pentane	91		-		70-130	-		
Ethyl ether	90		-		70-130	-		
1,1-Dichloroethene	99		-		70-130	-		
tert-Butyl Alcohol	88		-		70-130	-		
Methylene chloride	105		-		70-130	-		
3-Chloropropene	109		-		70-130	-		
Carbon disulfide	89		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		
trans-1,2-Dichloroethene	98		-		70-130	-		
1,1-Dichloroethane	102		-		70-130	-		
Methyl tert butyl ether	97		-		70-130	-		
Vinyl acetate	116		-		70-130	-		
2-Butanone	97		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		
Ethyl Acetate	102		-		70-130	-		
Chloroform	99		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
2,2-Dichloropropane	81		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	108		-		70-130	-		
Isopropyl Ether	94		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG999981-3								
Ethyl-Tert-Butyl-Ether	93		-		70-130	-		
1,1,1-Trichloroethane	116		-		70-130	-		
1,1-Dichloropropene	101		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	105		-		70-130	-		
Cyclohexane	106		-		70-130	-		
Tertiary-Amyl Methyl Ether	92		-		70-130	-		
Dibromomethane	101		-		70-130	-		
1,2-Dichloropropane	110		-		70-130	-		
Bromodichloromethane	109		-		70-130	-		
1,4-Dioxane	106		-		70-130	-		
Trichloroethene	103		-		70-130	-		
2,2,4-Trimethylpentane	109		-		70-130	-		
Methyl Methacrylate	121		-		70-130	-		
Heptane	110		-		70-130	-		
cis-1,3-Dichloropropene	115		-		70-130	-		
4-Methyl-2-pentanone	113		-		70-130	-		
trans-1,3-Dichloropropene	98		-		70-130	-		
1,1,2-Trichloroethane	108		-		70-130	-		
Toluene	92		-		70-130	-		
1,3-Dichloropropane	90		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG999981-3								
2-Hexanone	101		-		70-130	-		
Dibromochloromethane	97		-		70-130	-		
1,2-Dibromoethane	94		-		70-130	-		
Butyl Acetate	91		-		70-130	-		
Octane	85		-		70-130	-		
Tetrachloroethene	88		-		70-130	-		
1,1,1,2-Tetrachloroethane	85		-		70-130	-		
Chlorobenzene	93		-		70-130	-		
Ethylbenzene	93		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	93		-		70-130	-		
Styrene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	97		-		70-130	-		
o-Xylene	96		-		70-130	-		
1,2,3-Trichloropropane	91		-		70-130	-		
Nonane (C9)	89		-		70-130	-		
Isopropylbenzene	89		-		70-130	-		
Bromobenzene	90		-		70-130	-		
o-Chlorotoluene	86		-		70-130	-		
n-Propylbenzene	87		-		70-130	-		
p-Chlorotoluene	87		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1713606

Project Number: Not Specified

Report Date: 05/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG999981-3								
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	93		-		70-130	-		
tert-Butylbenzene	88		-		70-130	-		
1,2,4-Trimethylbenzene	98		-		70-130	-		
Decane (C10)	94		-		70-130	-		
Benzyl chloride	97		-		70-130	-		
1,3-Dichlorobenzene	94		-		70-130	-		
1,4-Dichlorobenzene	94		-		70-130	-		
sec-Butylbenzene	90		-		70-130	-		
p-Isopropyltoluene	84		-		70-130	-		
1,2-Dichlorobenzene	95		-		70-130	-		
n-Butylbenzene	95		-		70-130	-		
1,2-Dibromo-3-chloropropane	96		-		70-130	-		
Undecane	103		-		70-130	-		
Dodecane (C12)	117		-		70-130	-		
1,2,4-Trichlorobenzene	108		-		70-130	-		
Naphthalene	96		-		70-130	-		
1,2,3-Trichlorobenzene	104		-		70-130	-		
Hexachlorobutadiene	103		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1713606

Report Date: 05/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG999981-5 QC Sample: L1713607-02 Client ID: DUP Sample						
Dichlorodifluoromethane	0.360	0.545	ppbV	41	Q	25
Chloromethane	0.786	0.738	ppbV	6		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	94.0	91.9	ppbV	2		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	44.9	44.1	ppbV	2		25
Trichlorofluoromethane	0.251	0.251	ppbV	0		25
iso-Propyl Alcohol	12.8	12.8	ppbV	0		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	1.24	1.24	ppbV	0		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1713606

Report Date: 05/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG999981-5 QC Sample: L1713607-02 Client ID: DUP Sample						
2-Butanone	0.823	0.790	ppbV	4		25
Ethyl Acetate	5.80	5.49	ppbV	5		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.375	0.405	ppbV	8		25
Benzene	0.512	0.537	ppbV	5		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	0.306	0.321	ppbV	5		25
Heptane	0.742	0.802	ppbV	8		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	2.43	2.49	ppbV	2		25
2-Hexanone	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1713606

Report Date: 05/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG999981-5 QC Sample: L1713607-02 Client ID: DUP Sample						
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.250	0.261	ppbV	4		25
p/m-Xylene	0.786	0.822	ppbV	4		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	0.297	0.310	ppbV	4		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	0.212	0.224	ppbV	6		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name:

Project Number:

Serial\_No:05041716:25  
Lab Number: L1713606

Report Date: 05/04/17

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1713606-01	RAW AIR (4/28/17)	2035	2.7L Can	04/27/17	240926	L1712970-01	Pass	-29.5	-1.1	-	-	-	-
L1713606-02	MID AIR (4/28/17)	2382	2.7L Can	04/27/17	240926	L1712970-01	Pass	-29.4	-2.1	-	-	-	-
L1713606-03	EFFLUENT AIR (4/28/17)	2180	2.7L Can	04/27/17	240926	L1712970-01	Pass	-29.5	-0.3	-	-	-	-

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

**Lab Number:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 04/25/17 18:36  
 Analyst: RY

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01 Date Collected: 04/24/17 16:00  
 Client ID: CAN 487 SHELF 2 Date Received: 04/25/17  
 Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	88		60-140

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

**Lab Number:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 04/25/17 18:36  
 Analyst: RY

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L1712970  
**Report Date:** 05/04/17

### Air Canister Certification Results

Lab ID: L1712970-01  
 Client ID: CAN 487 SHELF 2  
 Sample Location:

Date Collected: 04/24/17 16:00  
 Date Received: 04/25/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	95		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

**Project Name:** Not Specified**Lab Number:** L1713606**Project Number:** Not Specified**Report Date:** 05/04/17**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Present/Intact

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1713606-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1713606-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1713606-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

## 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

#### 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.



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1713606  
**Report Date:** 05/04/17

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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 1 OF 1

## CHAIN OF CUSTODY

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

### Client Information

Client: Ca Rich Consultants  
 Address: 17 Dupont Street  
Plainview NY  
 Phone: 516-576-8844  
 Fax: 516-576-0093  
 Email: JProscia@carichinc.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

### Project Information

Project Name:  
 Project Location: 1801 Falmouth Ave  
 Project #: New York Park, NY  
 Project Manager: Jessica Proscia  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: Time:

Date Rec'd in Lab: 4/29/17

### 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)

ALPHA Job #: L1713606

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
3606-01	Raw Air (4/28/17)	4/28/17	8:00	8:00	-30	4	SV	JP	2.7	2035	-	X						
-02	Mid Air (4/28/17)	4/28/17	8:08	8:08	-30	4	SV	JP	2.7	2382	-	X						
-03	Effluent Air (4/28/17)	4/28/17	8:15	8:15	-30	4	SV	JP	2.7	2180	-	X						

### \*SAMPLE MATRIX CODES

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

Container Type

Relinquished By: Paul Scuderi - AAAL  
Anthony George (AAL)

Date/Time: 4/28/17 17:50  
4/29/17 02:00

Received By: Paul Scuderi - AAAL  
Anthony George (AAL)  
Stacy Beard

Date/Time: 4/28/17 11:45  
4/28/17 08:36  
4/29/17 02:00

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.



## ANALYTICAL REPORT

Lab Number:	L1717410
Client:	CA RICH CONSULTANTS, INC. 17 Dupont St. Plainview, NY 11803
ATTN:	Jessica Proscia
Phone:	(516) 576-8844
Project Name:	Not Specified
Project Number:	Not Specified
Report Date:	06/05/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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).

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



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1717410-01	RAW AIR (5/26/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	05/26/17 08:00	05/26/17
L1717410-02	MID AIR (5/26/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	05/26/17 08:10	05/26/17
L1717410-03	EFFLUENT AIR (5/26/17)	SOIL_VAPOR	1801 FALMOUTH AVE NEW HYDE PARK, NY	05/26/17 08:20	05/26/17



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on May 25, 2017. The canister certification results are provided as an addendum.

Sample L1717410-01 through -03: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen due to canister size. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

Sample L1717410-01 and -02: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

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: 06/05/17

**AIR**



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

**SAMPLE RESULTS**

Lab ID: L1717410-01 D  
 Client ID: RAW AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 06/02/17 23:41  
 Analyst: MB

Date Collected: 05/26/17 08:00  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	ND	1.13	--	ND	5.59	--		5.643
Chloromethane	ND	1.13	--	ND	2.33	--		5.643
Freon-114	ND	1.13	--	ND	7.90	--		5.643
Vinyl chloride	ND	1.13	--	ND	2.89	--		5.643
1,3-Butadiene	ND	1.13	--	ND	2.50	--		5.643
Bromomethane	ND	1.13	--	ND	4.39	--		5.643
Chloroethane	11.2	1.13	--	29.6	2.98	--		5.643
Ethanol	ND	28.2	--	ND	53.1	--		5.643
Vinyl bromide	ND	1.13	--	ND	4.94	--		5.643
Acetone	ND	5.64	--	ND	13.4	--		5.643
Trichlorofluoromethane	ND	1.13	--	ND	6.35	--		5.643
Isopropanol	ND	2.82	--	ND	6.93	--		5.643
1,1-Dichloroethene	3.13	1.13	--	12.4	4.48	--		5.643
Tertiary butyl Alcohol	ND	2.82	--	ND	8.55	--		5.643
Methylene chloride	ND	2.82	--	ND	9.80	--		5.643
3-Chloropropene	ND	1.13	--	ND	3.54	--		5.643
Carbon disulfide	ND	1.13	--	ND	3.52	--		5.643
Freon-113	ND	1.13	--	ND	8.66	--		5.643
trans-1,2-Dichloroethene	ND	1.13	--	ND	4.48	--		5.643
1,1-Dichloroethane	102	1.13	--	413	4.57	--		5.643
Methyl tert butyl ether	ND	1.13	--	ND	4.07	--		5.643
2-Butanone	ND	2.82	--	ND	8.32	--		5.643
cis-1,2-Dichloroethene	2.36	1.13	--	9.36	4.48	--		5.643
Ethyl Acetate	ND	2.82	--	ND	10.2	--		5.643



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-01 D Date Collected: 05/26/17 08:00  
 Client ID: RAW AIR (5/26/17) Date Received: 05/26/17  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	5.95	1.13	--	29.1	5.52	--		5.643
Tetrahydrofuran	ND	2.82	--	ND	8.32	--		5.643
1,2-Dichloroethane	ND	1.13	--	ND	4.57	--		5.643
n-Hexane	1.58	1.13	--	5.57	3.98	--		5.643
1,1,1-Trichloroethane	355	1.13	--	1940	6.17	--		5.643
Benzene	ND	1.13	--	ND	3.61	--		5.643
Carbon tetrachloride	ND	1.13	--	ND	7.11	--		5.643
Cyclohexane	ND	1.13	--	ND	3.89	--		5.643
1,2-Dichloropropane	ND	1.13	--	ND	5.22	--		5.643
Bromodichloromethane	ND	1.13	--	ND	7.57	--		5.643
1,4-Dioxane	1.23	1.13	--	4.43	4.07	--		5.643
Trichloroethene	16.4	1.13	--	88.1	6.07	--		5.643
2,2,4-Trimethylpentane	ND	1.13	--	ND	5.28	--		5.643
Heptane	ND	1.13	--	ND	4.63	--		5.643
cis-1,3-Dichloropropene	ND	1.13	--	ND	5.13	--		5.643
4-Methyl-2-pentanone	ND	2.82	--	ND	11.6	--		5.643
trans-1,3-Dichloropropene	ND	1.13	--	ND	5.13	--		5.643
1,1,2-Trichloroethane	ND	1.13	--	ND	6.17	--		5.643
Toluene	2.28	1.13	--	8.59	4.26	--		5.643
2-Hexanone	ND	1.13	--	ND	4.63	--		5.643
Dibromochloromethane	ND	1.13	--	ND	9.63	--		5.643
1,2-Dibromoethane	ND	1.13	--	ND	8.68	--		5.643
Tetrachloroethene	13.2	1.13	--	89.5	7.66	--		5.643
Chlorobenzene	ND	1.13	--	ND	5.20	--		5.643
Ethylbenzene	ND	1.13	--	ND	4.91	--		5.643
p/m-Xylene	ND	2.26	--	ND	9.82	--		5.643
Bromoform	ND	1.13	--	ND	11.7	--		5.643
Styrene	ND	1.13	--	ND	4.81	--		5.643



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-01 D Date Collected: 05/26/17 08:00  
 Client ID: RAW AIR (5/26/17) Date Received: 05/26/17  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	1.13	--	ND	7.76	--		5.643
o-Xylene	ND	1.13	--	ND	4.91	--		5.643
4-Ethyltoluene	ND	1.13	--	ND	5.56	--		5.643
1,3,5-Trimethylbenzene	ND	1.13	--	ND	5.56	--		5.643
1,2,4-Trimethylbenzene	ND	1.13	--	ND	5.56	--		5.643
Benzyl chloride	ND	1.13	--	ND	5.85	--		5.643
1,3-Dichlorobenzene	ND	1.13	--	ND	6.79	--		5.643
1,4-Dichlorobenzene	ND	1.13	--	ND	6.79	--		5.643
1,2-Dichlorobenzene	ND	1.13	--	ND	6.79	--		5.643
1,2,4-Trichlorobenzene	ND	1.13	--	ND	8.39	--		5.643
Hexachlorobutadiene	ND	1.13	--	ND	12.1	--		5.643

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	113		60-140
Bromochloromethane	118		60-140
chlorobenzene-d5	113		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-02 D  
 Client ID: MID AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 06/03/17 00:13  
 Analyst: MB

Date Collected: 05/26/17 08:10  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1.05	--	ND	5.19	--		5.264
Chloromethane	ND	1.05	--	ND	2.17	--		5.264
Freon-114	ND	1.05	--	ND	7.34	--		5.264
Vinyl chloride	ND	1.05	--	ND	2.68	--		5.264
1,3-Butadiene	ND	1.05	--	ND	2.32	--		5.264
Bromomethane	ND	1.05	--	ND	4.08	--		5.264
Chloroethane	9.90	1.05	--	26.1	2.77	--		5.264
Ethanol	34.4	26.3	--	64.8	49.6	--		5.264
Vinyl bromide	ND	1.05	--	ND	4.59	--		5.264
Acetone	ND	5.26	--	ND	12.5	--		5.264
Trichlorofluoromethane	ND	1.05	--	ND	5.90	--		5.264
Isopropanol	ND	2.63	--	ND	6.46	--		5.264
1,1-Dichloroethene	3.55	1.05	--	14.1	4.16	--		5.264
Tertiary butyl Alcohol	2.71	2.63	--	8.22	7.97	--		5.264
Methylene chloride	ND	2.63	--	ND	9.14	--		5.264
3-Chloropropene	ND	1.05	--	ND	3.29	--		5.264
Carbon disulfide	ND	1.05	--	ND	3.27	--		5.264
Freon-113	ND	1.05	--	ND	8.05	--		5.264
trans-1,2-Dichloroethene	ND	1.05	--	ND	4.16	--		5.264
1,1-Dichloroethane	95.3	1.05	--	386	4.25	--		5.264
Methyl tert butyl ether	ND	1.05	--	ND	3.79	--		5.264
2-Butanone	ND	2.63	--	ND	7.76	--		5.264
cis-1,2-Dichloroethene	2.84	1.05	--	11.3	4.16	--		5.264
Ethyl Acetate	ND	2.63	--	ND	9.48	--		5.264



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

**SAMPLE RESULTS**

Lab ID: L1717410-02 D  
 Client ID: MID AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 05/26/17 08:10  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	4.67	1.05	--	22.8	5.13	--		5.264
Tetrahydrofuran	3.61	2.63	--	10.6	7.76	--		5.264
1,2-Dichloroethane	ND	1.05	--	ND	4.25	--		5.264
n-Hexane	ND	1.05	--	ND	3.70	--		5.264
1,1,1-Trichloroethane	374	1.05	--	2040	5.73	--		5.264
Benzene	ND	1.05	--	ND	3.35	--		5.264
Carbon tetrachloride	ND	1.05	--	ND	6.60	--		5.264
Cyclohexane	ND	1.05	--	ND	3.61	--		5.264
1,2-Dichloropropane	ND	1.05	--	ND	4.85	--		5.264
Bromodichloromethane	ND	1.05	--	ND	7.03	--		5.264
1,4-Dioxane	ND	1.05	--	ND	3.78	--		5.264
Trichloroethene	ND	1.05	--	ND	5.64	--		5.264
2,2,4-Trimethylpentane	ND	1.05	--	ND	4.90	--		5.264
Heptane	ND	1.05	--	ND	4.30	--		5.264
cis-1,3-Dichloropropene	ND	1.05	--	ND	4.77	--		5.264
4-Methyl-2-pentanone	ND	2.63	--	ND	10.8	--		5.264
trans-1,3-Dichloropropene	ND	1.05	--	ND	4.77	--		5.264
1,1,2-Trichloroethane	ND	1.05	--	ND	5.73	--		5.264
Toluene	ND	1.05	--	ND	3.96	--		5.264
2-Hexanone	ND	1.05	--	ND	4.30	--		5.264
Dibromochloromethane	ND	1.05	--	ND	8.95	--		5.264
1,2-Dibromoethane	ND	1.05	--	ND	8.07	--		5.264
Tetrachloroethene	ND	1.05	--	ND	7.12	--		5.264
Chlorobenzene	ND	1.05	--	ND	4.84	--		5.264
Ethylbenzene	ND	1.05	--	ND	4.56	--		5.264
p/m-Xylene	ND	2.10	--	ND	9.12	--		5.264
Bromoform	ND	1.05	--	ND	10.9	--		5.264
Styrene	ND	1.05	--	ND	4.47	--		5.264



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-02 D  
 Client ID: MID AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 05/26/17 08:10  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	1.05	--	ND	7.21	--		5.264
o-Xylene	ND	1.05	--	ND	4.56	--		5.264
4-Ethyltoluene	ND	1.05	--	ND	5.16	--		5.264
1,3,5-Trimethylbenzene	ND	1.05	--	ND	5.16	--		5.264
1,2,4-Trimethylbenzene	ND	1.05	--	ND	5.16	--		5.264
Benzyl chloride	ND	1.05	--	ND	5.44	--		5.264
1,3-Dichlorobenzene	ND	1.05	--	ND	6.31	--		5.264
1,4-Dichlorobenzene	ND	1.05	--	ND	6.31	--		5.264
1,2-Dichlorobenzene	ND	1.05	--	ND	6.31	--		5.264
1,2,4-Trichlorobenzene	ND	1.05	--	ND	7.79	--		5.264
Hexachlorobutadiene	ND	1.05	--	ND	11.2	--		5.264

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	115		60-140
Bromochloromethane	120		60-140
chlorobenzene-d5	115		60-140



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-03 D  
 Client ID: EFFLUENT AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 06/03/17 00:48  
 Analyst: MB

Date Collected: 05/26/17 08:20  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.644	0.433	--	3.18	2.14	--		2.167
Chloromethane	ND	0.433	--	ND	0.894	--		2.167
Freon-114	ND	0.433	--	ND	3.03	--		2.167
Vinyl chloride	ND	0.433	--	ND	1.11	--		2.167
1,3-Butadiene	ND	0.433	--	ND	0.958	--		2.167
Bromomethane	ND	0.433	--	ND	1.68	--		2.167
Chloroethane	7.30	0.433	--	19.3	1.14	--		2.167
Ethanol	30.0	10.8	--	56.5	20.3	--		2.167
Vinyl bromide	ND	0.433	--	ND	1.89	--		2.167
Acetone	3.71	2.17	--	8.81	5.15	--		2.167
Trichlorofluoromethane	ND	0.433	--	ND	2.43	--		2.167
Isopropanol	1.21	1.08	--	2.97	2.65	--		2.167
1,1-Dichloroethene	0.472	0.433	--	1.87	1.72	--		2.167
Tertiary butyl Alcohol	ND	1.08	--	ND	3.27	--		2.167
Methylene chloride	ND	1.08	--	ND	3.75	--		2.167
3-Chloropropene	ND	0.433	--	ND	1.36	--		2.167
Carbon disulfide	ND	0.433	--	ND	1.35	--		2.167
Freon-113	ND	0.433	--	ND	3.32	--		2.167
trans-1,2-Dichloroethene	ND	0.433	--	ND	1.72	--		2.167
1,1-Dichloroethane	ND	0.433	--	ND	1.75	--		2.167
Methyl tert butyl ether	ND	0.433	--	ND	1.56	--		2.167
2-Butanone	ND	1.08	--	ND	3.19	--		2.167
cis-1,2-Dichloroethene	ND	0.433	--	ND	1.72	--		2.167
Ethyl Acetate	ND	1.08	--	ND	3.89	--		2.167



**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-03 D  
 Client ID: EFFLUENT AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 05/26/17 08:20  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.433	--	ND	2.11	--		2.167
Tetrahydrofuran	ND	1.08	--	ND	3.19	--		2.167
1,2-Dichloroethane	ND	0.433	--	ND	1.75	--		2.167
n-Hexane	ND	0.433	--	ND	1.53	--		2.167
1,1,1-Trichloroethane	ND	0.433	--	ND	2.36	--		2.167
Benzene	0.650	0.433	--	2.08	1.38	--		2.167
Carbon tetrachloride	ND	0.433	--	ND	2.72	--		2.167
Cyclohexane	ND	0.433	--	ND	1.49	--		2.167
1,2-Dichloropropane	ND	0.433	--	ND	2.00	--		2.167
Bromodichloromethane	ND	0.433	--	ND	2.90	--		2.167
1,4-Dioxane	ND	0.433	--	ND	1.56	--		2.167
Trichloroethene	ND	0.433	--	ND	2.33	--		2.167
2,2,4-Trimethylpentane	ND	0.433	--	ND	2.02	--		2.167
Heptane	ND	0.433	--	ND	1.77	--		2.167
cis-1,3-Dichloropropene	ND	0.433	--	ND	1.97	--		2.167
4-Methyl-2-pentanone	ND	1.08	--	ND	4.43	--		2.167
trans-1,3-Dichloropropene	ND	0.433	--	ND	1.97	--		2.167
1,1,2-Trichloroethane	ND	0.433	--	ND	2.36	--		2.167
Toluene	0.843	0.433	--	3.18	1.63	--		2.167
2-Hexanone	ND	0.433	--	ND	1.77	--		2.167
Dibromochloromethane	ND	0.433	--	ND	3.69	--		2.167
1,2-Dibromoethane	ND	0.433	--	ND	3.33	--		2.167
Tetrachloroethene	ND	0.433	--	ND	2.94	--		2.167
Chlorobenzene	ND	0.433	--	ND	1.99	--		2.167
Ethylbenzene	ND	0.433	--	ND	1.88	--		2.167
p/m-Xylene	ND	0.867	--	ND	3.77	--		2.167
Bromoform	ND	0.433	--	ND	4.48	--		2.167
Styrene	ND	0.433	--	ND	1.84	--		2.167





**Project Name:**  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

### SAMPLE RESULTS

Lab ID: L1717410-03 D  
 Client ID: EFFLUENT AIR (5/26/17)  
 Sample Location: 1801 FALMOUTH AVE NEW HYDE PAR

Date Collected: 05/26/17 08:20  
 Date Received: 05/26/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.433	--	ND	2.97	--		2.167
o-Xylene	ND	0.433	--	ND	1.88	--		2.167
4-Ethyltoluene	ND	0.433	--	ND	2.13	--		2.167
1,3,5-Trimethylbenzene	ND	0.433	--	ND	2.13	--		2.167
1,2,4-Trimethylbenzene	0.516	0.433	--	2.54	2.13	--		2.167
Benzyl chloride	ND	0.433	--	ND	2.24	--		2.167
1,3-Dichlorobenzene	ND	0.433	--	ND	2.60	--		2.167
1,4-Dichlorobenzene	ND	0.433	--	ND	2.60	--		2.167
1,2-Dichlorobenzene	ND	0.433	--	ND	2.60	--		2.167
1,2,4-Trichlorobenzene	ND	0.433	--	ND	3.21	--		2.167
Hexachlorobutadiene	ND	0.433	--	ND	4.62	--		2.167

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	113		60-140
Bromochloromethane	114		60-140
chlorobenzene-d5	112		60-140



Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 06/02/17 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1008961-4								
Propylene	ND	0.500	--	ND	0.861	--		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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
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

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 06/02/17 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1008961-4								
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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		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
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
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		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
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
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 06/02/17 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1008961-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1008961-3								
Chlorodifluoromethane	88		-		70-130	-		
Propylene	102		-		70-130	-		
Propane	72		-		70-130	-		
Dichlorodifluoromethane	96		-		70-130	-		
Chloromethane	84		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	100		-		70-130	-		
Methanol	77		-		70-130	-		
Vinyl chloride	89		-		70-130	-		
1,3-Butadiene	93		-		70-130	-		
Butane	74		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	89		-		70-130	-		
Ethyl Alcohol	80		-		70-130	-		
Dichlorofluoromethane	86		-		70-130	-		
Vinyl bromide	101		-		70-130	-		
Acrolein	76		-		70-130	-		
Acetone	96		-		70-130	-		
Acetonitrile	76		-		70-130	-		
Trichlorofluoromethane	109		-		70-130	-		
iso-Propyl Alcohol	83		-		70-130	-		
Acrylonitrile	82		-		70-130	-		
Pentane	75		-		70-130	-		
1,1-Dichloroethene	87		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1008961-3								
tert-Butyl Alcohol	79		-		70-130	-		
Methylene chloride	76		-		70-130	-		
3-Chloropropene	76		-		70-130	-		
Carbon disulfide	90		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	104		-		70-130	-		
trans-1,2-Dichloroethene	96		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		
Methyl tert butyl ether	103		-		70-130	-		
Vinyl acetate	111		-		70-130	-		
2-Butanone	85		-		70-130	-		
cis-1,2-Dichloroethene	100		-		70-130	-		
Ethyl Acetate	105		-		70-130	-		
Chloroform	106		-		70-130	-		
Tetrahydrofuran	89		-		70-130	-		
2,2-Dichloropropane	96		-		70-130	-		
1,2-Dichloroethane	104		-		70-130	-		
n-Hexane	82		-		70-130	-		
Isopropyl Ether	83		-		70-130	-		
Ethyl-Tert-Butyl-Ether	76		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
1,1-Dichloropropene	81		-		70-130	-		
Benzene	84		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1008961-3								
Cyclohexane	80		-		70-130	-		
Tertiary-Amyl Methyl Ether	79		-		70-130	-		
Dibromomethane	83		-		70-130	-		
1,2-Dichloropropane	82		-		70-130	-		
Bromodichloromethane	91		-		70-130	-		
1,4-Dioxane	88		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	83		-		70-130	-		
Methyl Methacrylate	86		-		70-130	-		
Heptane	80		-		70-130	-		
cis-1,3-Dichloropropene	92		-		70-130	-		
4-Methyl-2-pentanone	81		-		70-130	-		
trans-1,3-Dichloropropene	81		-		70-130	-		
1,1,2-Trichloroethane	93		-		70-130	-		
Toluene	99		-		70-130	-		
1,3-Dichloropropane	90		-		70-130	-		
2-Hexanone	91		-		70-130	-		
Dibromochloromethane	114		-		70-130	-		
1,2-Dibromoethane	103		-		70-130	-		
Butyl Acetate	89		-		70-130	-		
Octane	90		-		70-130	-		
Tetrachloroethene	109		-		70-130	-		
1,1,1,2-Tetrachloroethane	98		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: Not Specified

Lab Number: L1717410

Project Number: Not Specified

Report Date: 06/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1008961-3								
Chlorobenzene	105		-		70-130	-		
Ethylbenzene	102		-		70-130	-		
p/m-Xylene	105		-		70-130	-		
Bromoform	122		-		70-130	-		
Styrene	107		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	105		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	85		-		70-130	-		
Isopropylbenzene	102		-		70-130	-		
Bromobenzene	95		-		70-130	-		
o-Chlorotoluene	100		-		70-130	-		
n-Propylbenzene	99		-		70-130	-		
p-Chlorotoluene	96		-		70-130	-		
4-Ethyltoluene	108		-		70-130	-		
1,3,5-Trimethylbenzene	108		-		70-130	-		
tert-Butylbenzene	104		-		70-130	-		
1,2,4-Trimethylbenzene	113		-		70-130	-		
Decane (C10)	92		-		70-130	-		
Benzyl chloride	114		-		70-130	-		
1,3-Dichlorobenzene	114		-		70-130	-		
1,4-Dichlorobenzene	114		-		70-130	-		
sec-Butylbenzene	101		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** Not Specified

**Project Number:** Not Specified

**Lab Number:** L1717410

**Report Date:** 06/05/17

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1008961-3								
p-Isopropyltoluene	98		-		70-130	-		
1,2-Dichlorobenzene	115		-		70-130	-		
n-Butylbenzene	104		-		70-130	-		
1,2-Dibromo-3-chloropropane	102		-		70-130	-		
Undecane	98		-		70-130	-		
Dodecane (C12)	110		-		70-130	-		
1,2,4-Trichlorobenzene	130		-		70-130	-		
Naphthalene	112		-		70-130	-		
1,2,3-Trichlorobenzene	118		-		70-130	-		
Hexachlorobutadiene	123		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1717410

Report Date: 06/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1008961-5 QC Sample: L1717530-02 Client ID: DUP Sample						
Dichlorodifluoromethane	0.269	ND	ppbV	NC		25
Chloromethane	0.366	0.315	ppbV	15		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	1.60	1.46	ppbV	9		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	100	95.8	ppbV	4		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	60.2	55.9	ppbV	7		25
Trichlorofluoromethane	0.384	0.339	ppbV	12		25
iso-Propyl Alcohol	1.71	1.58	ppbV	8		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	2.90	2.66	ppbV	9		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	2.36	2.42	ppbV	3		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1717410

Report Date: 06/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1008961-5 QC Sample: L1717530-02 Client ID: DUP Sample						
2-Butanone	83.7	81.7	ppbV	2		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	24.8	27.3	ppbV	10		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	3.27	3.58	ppbV	9		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	1.13	1.27	ppbV	12		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	0.264	0.275	ppbV	4		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	10.8	12.2	ppbV	12		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: Not Specified

Project Number: Not Specified

Lab Number: L1717410

Report Date: 06/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1008961-5 QC Sample: L1717530-02 Client ID: DUP Sample						
Toluene	5.53	5.72	ppbV	3		25
2-Hexanone	0.714	0.780	ppbV	9		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	13.9	13.8	ppbV	1		25
p/m-Xylene	43.8	42.8	ppbV	2		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	10.9	10.5	ppbV	4		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	0.336	0.319	ppbV	5		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name:

Project Number:

Serial\_No:06051714:53  
Lab Number: L1717410

Report Date: 06/05/17

### 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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1717410-01	RAW AIR (5/26/17)	670	1.0L Can	05/25/17	242633	L1716727-01	Pass	-29.2	-1.4	-	-	-	-
L1717410-02	MID AIR (5/26/17)	714	1.0L Can	05/25/17	242633	L1716727-01	Pass	-29.2	1.0	-	-	-	-
L1717410-03	EFFLUENT AIR (5/26/17)	1931	1.0L Can	05/25/17	242633	L1716727-01	Pass	-29.8	-0.7	-	-	-	-

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

**Lab Number:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01  
 Client ID: CAN 1506 SHELF 3  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 05/23/17 16:36  
 Analyst: MB

Date Collected: 05/22/17 16:00  
 Date Received: 05/23/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01 Date Collected: 05/22/17 16:00  
 Client ID: CAN 1506 SHELF 3 Date Received: 05/23/17  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01  
 Client ID: CAN 1506 SHELF 3  
 Sample Location:

Date Collected: 05/22/17 16:00  
 Date Received: 05/23/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01  
 Client ID: CAN 1506 SHELF 3  
 Sample Location:

Date Collected: 05/22/17 16:00  
 Date Received: 05/23/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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					
Silanol, Trimethyl-	6.5	NJ	ppbV		1



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

**Lab Number:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID:	L1716727-01	Date Collected:	05/22/17 16:00
Client ID:	CAN 1506 SHELF 3	Date Received:	05/23/17
Sample Location:		Field Prep:	Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140



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

**Lab Number:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01  
 Client ID: CAN 1506 SHELF 3  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 05/23/17 16:36  
 Analyst: MB

Date Collected: 05/22/17 16:00  
 Date Received: 05/23/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.056	0.050	--	0.429	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:** L1716727  
**Report Date:** 06/05/17

### Air Canister Certification Results

Lab ID: L1716727-01  
 Client ID: CAN 1506 SHELF 3  
 Sample Location:

Date Collected: 05/22/17 16:00  
 Date Received: 05/23/17  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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-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
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1716727**Project Number:** CANISTER QC BAT**Report Date:** 06/05/17**Air Canister Certification Results**

Lab ID: L1716727-01

Date Collected: 05/22/17 16:00

Client ID: CAN 1506 SHELF 3

Date Received: 05/23/17

Sample Location:

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	97		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

**Project Name:** Not Specified**Lab Number:** L1717410**Project Number:** Not Specified**Report Date:** 06/05/17**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information Custody Seal****Cooler**

N/A Present/Intact

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Analysis(*)</b>
L1717410-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1717410-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1717410-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

\*Values in parentheses indicate holding time in days

**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

## 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

**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.

**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.

### 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:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

#### 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.



**Project Name:** Not Specified  
**Project Number:** Not Specified

**Lab Number:** L1717410  
**Report Date:** 06/05/17

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## 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, NO<sub>2</sub>, NO<sub>3</sub>.

**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, SM4500CI-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

## CHAIN OF CUSTODY

PAGE 1 OF 1Date Rec'd in Lab: 5/27/17ALPHA Job #: L1717410  
L1717410 BR320 Forbes Blvd, Mansfield, MA 02048  
TEL: 508-822-9300 FAX: 508-822-3288**Client Information**Client: Ca Rich ConsultantsAddress: 17 DuPont St  
Plainview NYPhone: 516-576-8844

Fax:

Email: JProscia@CaRich.com These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: **Project Information**

Project Name:

Project Location: 1801 Falmoth AveProject #: New Hyde Park, NYProject Manager: Jessica Proscia

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

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS					Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum						TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	
7410 -01	Raw Air (5/26/17)	5/26/17	8:00	8:00	-30	2	SV	JP	2.5	570	-	X					
-02	Mid Air (5/26/17)	5/26/17	8:10	8:10	-30	2	SV	JP	2.5	714	-	X					
-03	Effluent Air (5/26/17)	5/26/17	8:20	8:20	-30	2	SV	JP	2.5	1931	-	X					

**\*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:

JP  
H-Vlachos  
5-26-17-12:37  
5-26-17-18:10  
5-27-17 0545BPB SA  
et. Vlachos  
5-26-17-12:37  
5-26-17 2430  
5/27/17 05:45

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.