From: Lawrence, Stephen (HEALTH)
Sent: Tuesday, February 26, 2019 10:33 AM
To: Spellman, John (DEC)
Subject: Emailing: 31 0180004 00 Office Depot SSDS CCR.pdf
Attachments: 31 0180004 00 Office Depot SSDS CCR.pdf

John,
Per your request, let me know if you need anything else.
Steve

Stephen Lawrence, Public Health Specialist Bureau of Environmental Exposure Investigation NYS Department of Health
ESP - Corning Tower, Room 1787 Albany, NY 12237
Phone: (518) 402-7860

Your message is ready to be sent with the following file or link attachments:

31 0180004 00 Office Depot SSDS CCR.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Proactive by Design

SSDS Construction Completion Report

Office Depot Shopping Center
Rt. 9W/Boices Lane, LLC
Boices Lane
Kingston, New York

NYSDEC Site Number: 356048

June 29, 2016

File No.: 31.0180004.00

PREPARED FOR:
Rt. 9W/Boices Lane, LLC
84 Business Park Drive
Suite 208
Armonk, NY 10504

GZA GeoEnvironmental of New York
6296 Fly Road | East Syracuse, NY 13057
315-800-1800

27 Offices Nationwide
www.gza.com

Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

249 Vanderbilt Avenue
Norwood, MA 02062
781.278.3700
www.gza.com

Via Email

June 29, 2016
File No. 31.0180004.00

Paul Fornaby
Rt. 9W/Boices Lane, LLC
84 Business Park Drive
Suite 208
Armonk, NY 10504

Re: Subslab Depressurization System Construction Completion Report
Office Depot Shopping Plaza
Boices Lane
Kingston, New York

Dear Mr. Fornaby:

GZA GeoEnvironmental of New York, Inc. (GZA) is pleased to present the enclosed Construction Completion Report detailing the installation of a subslab depressurization system at the above-referenced facility.

Please do not hesitate to contact us with any questions or concerns.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Benjamin Haith
Senior Project Manager

David L. Palmerton, Jr.
Principal & Sr. Vice President

TABLE OF CONTENTS

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FIGURES

APPENDICES

LIST OF ACRONYMS

CCR	Construction Completion Report
EPA	Environmental Protection Agency
IA	Indoor Air
IRM	Interim Remedial Measure
HVAC	Heating, Ventilation, & Air Conditioning
NYSDEC	New York State Department of Environment Conservation
NYSDOH	New York State Department of Health
OA	Outdoor Air
O&M	Operation & Maintenance
PCE	Tetrachloroethene
PVC	Poly Vinyl Chloride
RAO	Remedial Action Objective
SSDS	Sub-Slab Depressurization System
VOC	Volatile Organic Compound
wci	Water Column per Inch

CERTIFICATIONS

I, Jeffrey R. Holt, am currently a registered professional engineer licensed by the State of New York. I have reviewed the Department-approved Sub-Slab Depressurization System (SSDS) Interim Remedial Measures (IRM) Work Plan, the implementation of the Work Plan, and the Construction Completion Report of the IRM Contractor, and on this basis I certify that the SSDS IRM was implemented and that all construction activities were completed in substantial conformance with the Department-approved SSDS IRM Work Plan

It is my understanding and belief that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Jeffrey R. Holt of Holt Consulting am certifying as Owner's Designated Representative and I have been authorized and designated by Owner to sign this certification for the site.

57039
NYS Professional Engineer #

6-29-2016
Date

Signature

1.0 BACKGROUND AND SITE DESCRIPTION

Rt. 9W/Boices Lane, LLC entered into an Order on Consent and Administrative Settlement, Index No.: A3-0786-12-03 (Order) with the New York State Department of Environmental Conservation (NYSDEC) in April 2012 to investigate and remediate a 4.3-acre property located in the Town of Ulster, County of Ulster, New York (Site).

The Site is identified as Section Lot Block 48.42.20.3 on the Town of Ulster Tax Map # 048-042. The Site is bounded by Boices Lane to the north, Bear Cat Kill to the south, Ulster Avenue –Route 9W to the east, and Penn Central Railroad (West Shore Branch) to the west (see **Figure 1**).

Chlorinated volatile organic compounds (VOCs) were detected beneath the slab of the commercial plaza building on the Site. A Sub-Slab Depressurization System (SSDS) Interim Remedial Measure (IRM) was implemented to mitigate the exposure potential to soil vapors containing VOCs at this commercial property.

2.0 SUMMARY OF SITE REMEDY

2.1 REMEDIAL ACTION OBJECTIVES

Based on the results of the 2014 Remedial Investigation and historical site investigations, among other Remedial Action Objective (RAO), the following RAOs were identified for this Site:

Soil Vapor RAOs:

- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil; and
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

2.2 DESCRIPTION OF SELECTED REMEDY

The potential for inhalation or other contact with VOCs in soil vapor volatilizing from contaminated soil and/or groundwater at the Site was mitigated in accordance with the SSDS IRM Work Plan (dated January 7, 2016) which was informed by a general building assessment performed November 30, 2015. The SSDS IRM Work Plan was approved by the NYSDEC in a letter dated March 4, 2016.

Per the SSDS IRM Work Plan, five multi-suction point SSDSs were installed using principles and equipment typically used for soil vapor intrusion mitigation in buildings based upon the scientific and engineering evaluation of performance data from similar sites. The primary objective of implementing this IRM was to mitigate potential intrusion of VOC soil vapors related to former site operations that could pose a health hazard to occupants. This objective is achieved by maintaining a negative pressure of at least 0.002 water column inches (wci) below the slab relative to the air pressure above the slab. All work completed was in compliance with the New York State Department of Health (NYSDOH) document, “Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006” (NYSDOH VI Guidance).

3.0 INTERIM REMEDIAL MEASURE

3.1 INTRODUCTION

The SSDSs installed consist of sidewall mounted fan locations connected by manifold piping to vapor extraction points. The SSDSs were constructed using principles and equipment typically used for radon mitigation in buildings as detailed in the United States Environmental Protection Agency (EPA) EPA 402-K-03-007 (May 2006), and the NYSDOH VI Guidance. The SSDSs were installed as permanent, integral additions to the structure. The key components of the SSDSs are described below and are shown on an as- built diagram labeled "Sub-Slab System Diagram."

As installed, the SSDSs are maintaining sub-slab vacuum greater than 0.002 wci in all building spaces.

3.2 SYSTEM CONFIGURATION

- SYSTEM 1: 1 Boices Lane – H&R Block (See **Figure 2**)

  SSDS system configuration - RADONAWAY GP-501 fan, rear sidewall mount, to provide sub-slab depressurization via 3-inch schedule 40 PVC pipe to roof level exhaust; with one dedicated suction point, centrally located.

- SYSTEM 2: 9 Boices Lane – Vision Works (See **Figure 2)**

  SSDS system configuration - RADONAWAY GP-501 fan, rear sidewall mount, to provide sub-slab depressurization via 3-inch schedule 40 PVC pipe to roof level exhaust; with one dedicated suction point, centrally located.

- SYSTEM 3: 11 Boices Lane – Miracle Ear (See **Figure 2**)

  SSDS system configuration - RADONAWAY GP-501 fan, rear sidewall mount, to provide sub-slab depressurization via 3-inch schedule 40 PVC pipe to roof level exhaust; with one dedicated suction point, centrally located.

- SYSTEM 4: 15 Boices Lane - Miron Wines & Liquor (See **Figure 2**)

  SSDS system configuration - RADONAWAY GP-501 fan, rear sidewall mount, to provide sub-slab depressurization via 3-inch schedule 40 PVC pipe to roof level exhaust; with five dedicated suction points, four along east interior wall of 25 Boices Lane – former Office Depot and one at rear warehouse section of 15 Boices Lane.

- SYSTEM 5: 25 Boices Lane - former Office Depot (See **Figure 2**)

  SSDS system configuration - OBAR Systems OBAR - 76 high suction radial blower to roof level exhaust; with five dedicated suction points, four along west interior column row, and one at rear dock area, along with the four dedicated suction points along east interior wall of 25 Boices Lane connected to the RADONAWAY GP-501 fan primarily addressing 15 Boices Lane.

3.2.1 Common Design Elements

- Pre-construction consultation for component placements;

- Comprehensive diagnostics testing to optimize component type and placement;

- Suction points as follows: connection via 3-inch Schedule 40 PVC pipe, to cavity in sub- slab, with urethane seal; access hole to suction cavity by 5-inch core drill; suction cavity to consist of approximately 1 cu. ft. excavated material in sub-slab;
- Trenching around footers and piers where indicated;
- Proportioning valves for suction risers where required;
- All vent fan(s) and exhaust piping not located in or below an occupied area of the building;
- All exhaust points minimum 10 feet from any air intakes;
- Exterior switch and Sealtight and/or MC conduit from fan housings to building interior; connection to circuit or panel by client;
- U-tube style vacuum indicator per system, on vertical pipe run;
- Urethane sealant at slab joints, accessible cracks and penetrations in vicinity;
- Horizontal pipe as high as practicable, with metal bracketing direct to structure, sloped as required, above drop ceiling where applicable; and
- At installation completion, backdraft testing performed, measured pressure differentials; SSDS components labeled and provide system description and operational instructions.

3.2.2 Suction Pints

The suction points consists of a 5-inch core boring into the concrete slab, approximately 1- 2 cubic feet of sub-slab material has been removed. Mechanically suspended 3-inch SCH 40 PVC pipe has been inserted into the boring and sealed with urethane sealant.

3.2.3 Riser Piping

The riser piping consists of 3-inch SCH 40 PVC pipe that follows a route from the extraction point to 3-inch or 4-inch trunk line, then to exterior mounted vacuum fans. Weatherproof flashing or sealant has been applied to all penetrations. Vent pipes were installed at a pitch that ensures that any rainwater or condensation within the pipes drains downward into the ground beneath the slab. Piping is independently supported, and not supported from existing building mechanical systems. Piping is labeled at each level as “Sub-Slab Vent”. Piping is connected using manufacturer’s approved methods.

3.2.4 Exhaust Fans

Exhaust fans have been field selected for specific performance properties and are of two types:

1) 1, 9, 11, and 15 Boices Lane - RADONAWAY GP-501centrifugal inline fan. This fan consumes approximately 150w of electricity and produces a static pressure differential of up to 4.2 wci.; and
2) 25 Boices Lane - OBAR Systems OBAR -76 high suction radial blower. This fan consumes approximately 400w of electricity and produces a static pressure differential of up to 35 wci.

The fans are 120V single phase, double insulated. Each fan has an exterior disconnect switch. Fans are mounted with rubber Fernco couplings, for simplified replacement. Vent fan(s) and discharge piping are not located in or below an occupied area of the building. No air intakes are present within 10 feet of the exhaust point. All fans have been tested in place by using temporary electrical connections. Final electrical connection work was performed by a local electrical contractor familiar with the Site.

3.2.5 Instrumentation and Control

There is no centralized instrumentation or control for the SSDSs. Each building's SSDS fan can be switched on/off from either the adjacent positioned disconnect or at the breaker. Each exhaust fan system is equipped with a vacuum indicator mounted in a visible location on a riser pipe. The indicators consist of an oil filled U-tube style manometer. The indicators are inspected by observing the level of colored fluid. The indicators are designed primarily to give a simple visual check that vacuum is present in the riser pipe, specifically by observation that the fluid levels on each side of the indicator are not even. Indicators are marked at levels observed on April 13, 2016.

3.2.6 Sealing

Polyurethane sealants have been applied to floor cracks and slab penetrations to enhance the barrier between sub-slab and ambient air and improve the efficiency of the SSDS. Smoke testing was employed to guide sealing operations.

3.2.7 Test Point Performance Evaluation

Test Point monitoring locations are indicated on **Figure 2**. These consist of ¾-inch drill points through the slab into which a digital micromanometer probe was inserted. They are semi-permanently closed with backer and urethane sealant. These were established to aid in original system design and confirmatory testing, and in some cases are difficult to access. Their primary future use would be in recertification of system effectiveness.

Measurement Date – April 13, 2016.

In order to verify system effectiveness at achieving and maintaining a negative pressure of at least 0.002 wci and as a performance evaluation, test points were established at various distances from the suction cavities suitable to verify that the sub-slab of the entire subject area was being depressurized at least to the objective. See **Figure 2** for point locations.

TP #	Value (negative wci)	Most closely associated system	Stack wci
1	0.030	System 1	3.2
2	0.040	System 2	3.9
3	0.027	System 3	4.1
4	0.013	System 3	
5	0.385	System 4	2.1
6	0.014	System 4	
7	0.028	System 4	
8	0.007	System 4	
9	0.005	System 4	
10	0.026	System 4	
11	0.042	System 5	10.4
12	0.167	System 5	
13	0.013	System 5	
14	0.007	System 5	
15	0.008	System 5	

16	0.019	System 5
17	0.009	System 5
18	0.005	System 5

4.0 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATION

All fans will be kept in continuous operation unless building tenant spaces are unoccupied. NYSDOH VI Guidance specifies that operation, maintenance and monitoring of the SSDS should be included as part of site management. Until subsurface remediation efforts address VOCs in soil and/or groundwater to acceptable levels, operation of the SSDS shall continue if the building tenant space are occupied. The vapor mitigation system may be shut down and/or removed and O&M requirements would cease if the Site's soil and groundwater is remediated to NYSDEC cleanup guidance criteria.

Fans restart automatically in event of power loss. In case of overheating, the OBAR -76 fan should be switched off for 60 seconds, then restarted. The fan gauge is to be regularly inspected to verify that vacuum, indicated by a mark on the gauge, has not changed significantly from the position of the mark. Gauge is inspected by observing the level of colored fluid.

Normal system operation requires unchanged structural conditions. Any changes in structure, HVAC systems, slab conditions, etc., that may have impact on the SSDS will have to be assessed to determine if SSDS modifications should be made to ensure continued mitigation effectiveness.

5.0 SUB-SLAB DEPRESSURIZATION SYSTEM MONITORING

5.1 MONTHLY MONITORING

Each month, owner or owner's designee must inspect each fan vacuum manometer to verify that the indicated fluid level in the gauge has not changed significantly from the position that was marked. Observed measurements for each fan vacuum manometer will be recorded on form labeled "SSD System Vacuum Gauge Record". Also, inspection of visible components of SSDS in vicinity of gauge for degraded condition will be noted. This form will be maintained by the tenant supervisor designated by the owner. If, upon inspection, the indicated fluid level in the gauge has changed significantly from the position that was marked, owner shall promptly notify NYSDEC and address the condition.

5.2 ANNUAL INSPECTION

Annually, a visual inspection by owner or owner's representatives will be conducted of the complete System (e.g., vent fans, piping, warning devices, labeling), and at a minimum will include the following:

- Inspection of each SSDS's components for condition and their proper operation;
- Identification and repair of any leaks in accordance with Sections 4.3.1(a) and 4.3.4(a) of the NYSDOH VI Guidance (i.e.; with the systems running, use smoke sticks to check for leaks through concrete cracks, floor joints and at the suction points; any leaks will be resealed until smoke is no longer observed flowing through the opening);
- Inspection of each exhaust or discharge point of each exhaust fan to verify that no air intakes have been located within 10 feet;

- Conduct pressure field extension testing (to ensure that the system is maintaining a vacuum beneath the entire slab) by completing at least one differential pressure reading in each tenant space;
- Interview appropriate building occupants seeking comments and observations regarding the operation of the System; and
- Check to see that the circuit breakers controlling the circuits on which the soil vapor vent fans operate are still labeled "Soil Vapor System".

Annual inspection will confirm that each SSDS is continuing to perform to the purpose for which is was designed.

6.0 IRM PROGRAM ELEMENTS

6.1 CONTRACTOR & CONSULTANTS

- GZA of New York

  6296 Fly Road, East Syracuse, NY 13057 (315) 800-1800

- Mitigation Tech

  55 Shumway Road, Brockport, NY 14420 (585) 637-7430

6.2 POST SSDS INDOOR AIR SAMPLING

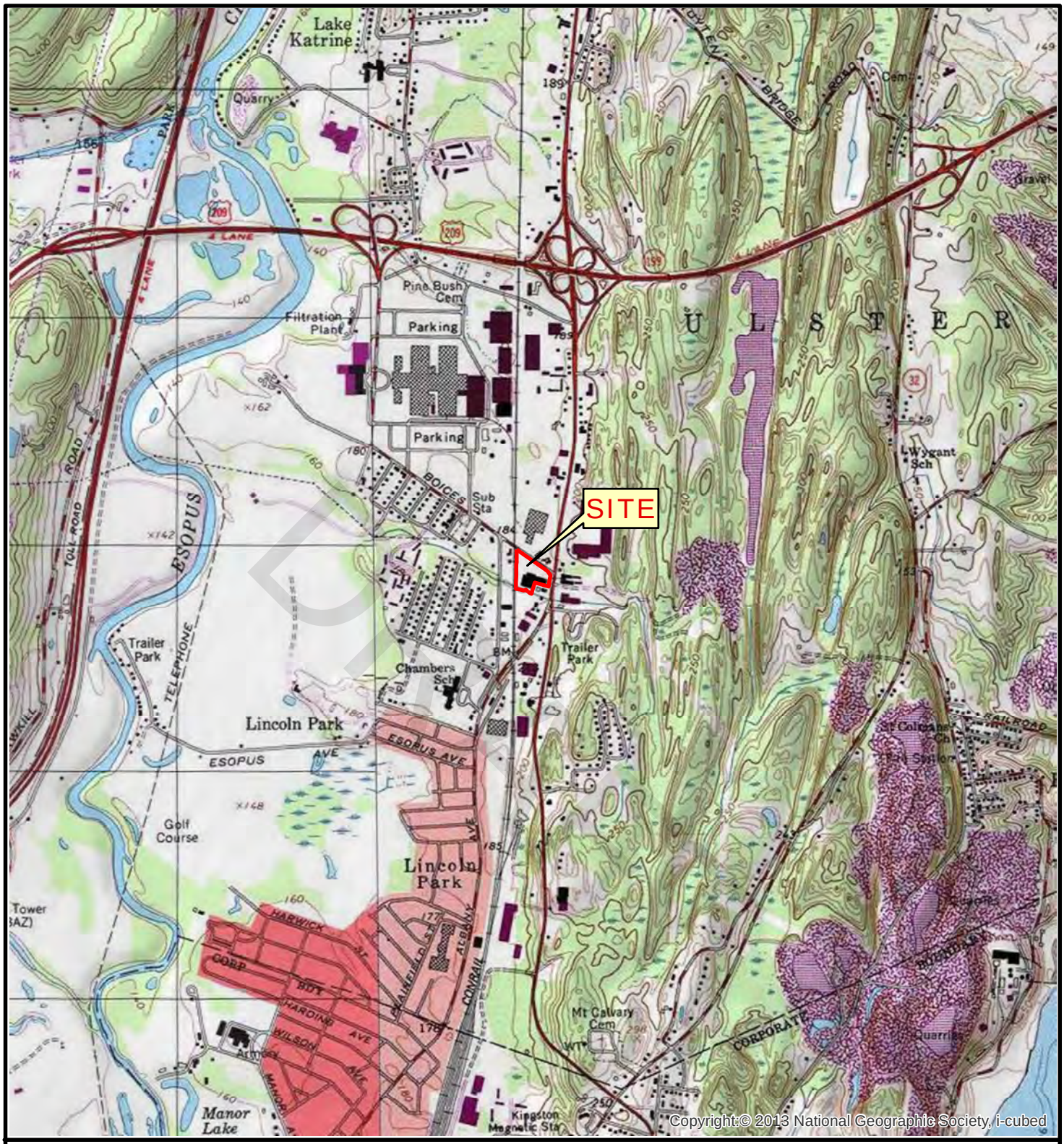
A minimum of 30 days following the installation of the SSDSs, indoor and outdoor air samples were collected on May 23, 2016 to confirm the mitigation effectiveness. Two indoor air samples were collected: one at the Office Depot shopping center; and one at Miron Liquors. IA-1 was set up in the vacant Office Depot, located in the center of the vacant retail space, and IA-2 was collected from the Miron Liquors retail storefront, towards the rear of the active store.

An outdoor air sample was also collected from the upwind direction and was positioned in the parking area south of the former Office Depot retail store. All three air samples were collected at an approximate height of 4-feet representative of an occupied breathing zone. Air samples were analyzed using EPA TO-15 for VOCs. Analytical results are provided in **Appendix B**.

Several VOCs were detected in exclusively in the outdoor air sample or at approximately the same concentration in the outdoor air sample as in the indoor air sample(s) and will not be discussed further. The VOCs in the outdoor air were: acetone, carbon tetrachloride, chloromethane, dichlorodifluoromethane, methylene chloride and Trichlorofluoromethane. In addition, unsurprisingly, ethyl alcohol was detected in and around Miron Liquors, and traces of gasoline (1,2,4-trimethylbenzene and toluene) and paint solvents (iso-propyl alcohol, ethyl acetate and 2-butanone) were detected. Further, these VOCs are not listed as driving vapor intrusion compounds according to NYSDOH VI Guidance.

Of the Site-related chlorinated VOCs, only tetrachloroethylene (PCE) was detected. PCE was found at the Office Depot store in IA-1 at 0.325 µg/m3 and at Miron Liquors in IA-2 at 0.78 µg/m3. Both of these indoor air concentration values are substantially less than the NYSDOH's indoor air guideline for PCE of 30 µg/m3, and are less than <3 µg/m3 concentration for which the NYSDOH VI Guidance recommends "No Further Action".

Figures



SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE WORLD TOPOGRAPHIC MAP SERVICE, PUBLISHED FEBRUARY 2011 BY ESRI ARCIMS SERVICES. THE SERVICE WAS COMPILED TO UNIFORM CARTOGRAPHY USING A VARIETY OF BEST AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS.

0 1,000 2,000 4,000 6,000 FEET

1:24,000 | 1 INCH = 2,000 FEET

Data Supplied by : esri

N W E S

PROJ MGR: BFH	REVIEWED BY: DLP	ROUTE 9W BOICES LANE KINGSTON, NEW YORK 12401	JOB NO. 31.0180004.00
DESIGNED BY: JBB	DRAWN BY: PCF		
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	DATE: OCTOBER 2015	SITE LOCUS	FIGURE NO. 1

N

LEGEND

TP-3 (.027) — APPROXIMATE LOCATION AND DESIGNATION OF TEST POINT WITH NEGATIVE WATER COLUMN PER INCH (wci) INDICATED

APPROXIMATE LOCATION OF SUCTION POINT

F-501 — APPROXIMATE LOCATION OF SUB-SLAB DEPRESSURIZATION FAN (F-76 = UD-76 FAN w/EXTERNAL SWITCH, F-501 = GP-501 FAN w/EXTERNAL SWITCH)

0 20 40 80

APPROXIMATE SCALE IN FEET

NOTES

1. BASE MAP IMAGE DOWNLOADED FROM LOCAL.LIVE.COM.
2. SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED BY MITIGATION TECH OF BROCKPORT, NY FROM APRIL 6 TO APRIL 13, 2016. PERFORMANCE EVALUATION (TEST POINTS) WERE ALSO PERFORMED BY MITIGATION TECH ON APRIL 13, 2016.
3. LOCATIONS OF SUCTION POINTS (SP-) AND TEST POINTS (TP-) WERE LOCATED BY TAPE MEASURE FROM EXISTING SITE BUILDING FEATURES AND ARE CONSIDERED APPROXIMATE.

NO.	ISSUE/DESCRIPTION	BY	DATE

ROUTE 9W BOICE LANE
KINGSTON, NEW YORK 12401

CONSTRUCTION COMPLETION REPORT
SSDS IRM

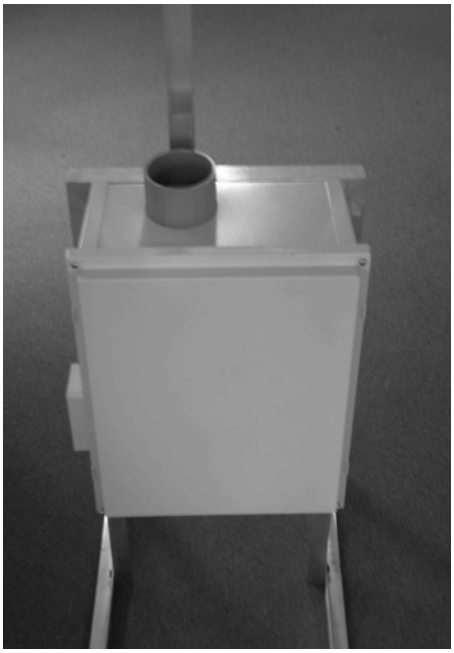
PREPARED BY:	PREPARED FOR:
GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com	ROUTE 9W BOICE LANE, LLC 84 BUSINESS PARK DRIVE, SUITE 208 ARMONK, NEW YORK 10504

PROJ MGR: BFH	REVIEWED BY: TGB	CHECKED BY: DLP	FIGURE 2
DESIGNED BY: NM	DRAWN BY: MDK	SCALE: 1" = 40'	
DATE: JUNE, 2016	PROJECT NO. 31.0180004.00	REVISION NO.	

Appendix A - SSDS EQUIPMENT SPECIFICATIONS

THE OBAR GBR76
COMPACT RADIAL BLOWER

Based on 25 years of experience and 2 years of research and development, the patent pending GBR series of compact radial blowers provide the perfect combination of performance and design.



GBR76 WITH ROOF MOUNT

PERFORMANCE

- GBR76 SOE 16" WC @ 0 Max flow 155 cfm.
- GBR76 HO 41" WC @ 0 Max flow 160 cfm.
- Built in speed control to customize performance.
- Condensate bypass built in.
- 18 month warranty 40,000 hr sealed bearings.

DESIGN

- Our modular design means the blower and manifold assembly can be removed and replaced as a unit. This makes repairs cost effective and easy and allows contractors to upgrade systems simply by swapping assemblies.
- The GBR series is based on a bypass blower designed to handle combustible materials.
- The housing is not required to be air tight so you can add gauges and alarms without compromising the system.
- Built in condensate bypass.
- Built in speed control.
- Quick disconnect electrical harness.
- All UL listed components including UL listed enclosure for outside use.
- Wall fastening lugs included.
- GBR series roof and wall mounts available to quickly configure the blowers for your installation while providing a custom built look.
- Compact design 16"x 14"x 8" weighing only 18 lbs.

OBAR SYSTEMS INC 117 POCANTECS ROAD HIGHLAND LAKES NJ 07422 800 949 6227

GBR76 SOE	0”	2”	4”	6”	8”	10”	12”	16”	Wattage
SOE 16	150	140	129	118	105	90	75	35	150-320
SOE 12	125	115	100	83	62	39	0		110-200
SOE 8	105	90	70	42	0				60-120
SOE 4	75	50	0						37-50

GBR SOE performance using built in potentiometer set at sealed vacuums of 16, 12, 8, and 4” WC

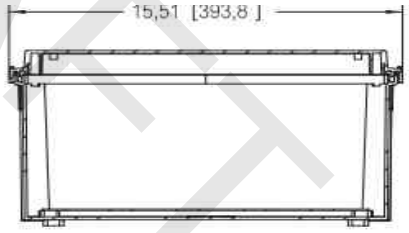
GBR76 HO	0”	10”	20”	30”	40”	Wattage
HO 40	155	110	72	40	10	400-575
HO 30	150	108	70	22	0	375-415
HO 20	141	99	20	0		200-350

GBR76 HO performance using built in potentiometer set at sealed vacuums of 40, 30, and 20” WC

Blower Specifications

Notes:

- **Input Voltage Range:** 108-132 Volts AC RMS, 50/60 Hz, single phase.
- **Input Current:** 6 amps AC RMS
- **Operating Temperature (Ambient Air and Working Air):** 0°C to 50°C
- **Storage Temperature:** -40°C to 85°C
- **Dielectric Testing:** 1500 Volts AC RMS 60 Hz applied for one second between input pins and ground, 3mA leakage maximum.
- **Speed Control Methods:** PWM (Pulse Width Modulation) (1 kHz to 10 kHz)
  0 to 10 VDC speed control.
  Mechanical: A potentiometer is available for speed control of the blower. The potentiometer can be preset for a specific speed. Access for speed adjustment located in motor housing.
- **Approximate Weight:** 4.8 Lbs. / 2.2 Kg
- **Regulatory Agency Certification:** Underwriters Laboratories Inc. UL507 Recognized under File E94403 and compliant under the CE Low Voltage Directive 2006/95/EC.
- **Design Features:** Designed to provide variable airflow for low NOx & CO emission in high efficiency gas fired combustion systems. Built with non-sparking materials. Blower housing assembly constructed of die cast aluminum. Impeller constructed from hardened aluminum. Rubber isolation mounts built into blower construction to dampen vibration within the motor. Two piece blower housing assembly sealed with O-ring gasket for combustion applications. Customer is responsible to check for any leakage once the blower is installed into the final application.
- **Miscellaneous:** Blower inlet, discharge, and all motor cooling inlet and discharge vents must not be obstructed. Motor ventilation air to be free of oils and other foreign particles, (i.e. breathing quality air). Blower is to be mounted so ventilation air cannot be re-circulated.
  POWER CONNECTION: Blower connector, AMP Universal MATE-N-LOK, part no. 1-350943-0.
  SPEED CONNECTION: Blower connector, Molex Mini-Fit Jr., part no. 39-30-3056.
  Mating harnesses available upon request.



Screw cover

Enclosure Specifications

Rating:

Ingress Protection (EN 60529): 66/67

Electrical insulation: Totally insulated

Halogen free (DIN/VDE 0472, Part 815): yes

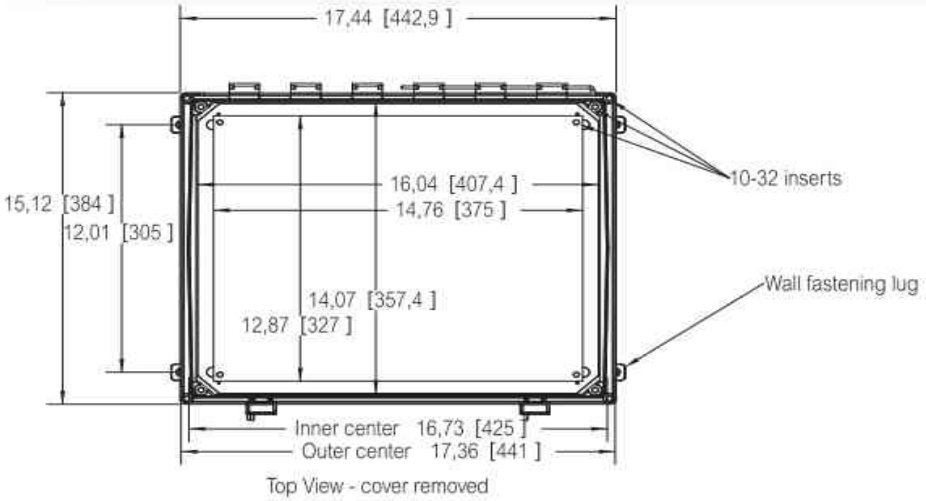
UV resistance: UL 508

Flammability Rating (UL 746 C 5): complies with UL 508

Glow Wire Test (IEC 695-2-1) °C: 960

NEMA Class: UL Type 4, 4X, 6, 6P, 12 and 13

Certificates: Underwriters Laboratories



Top View - cover removed

RadonAway™
The world's leading radon fan manufacturer

GP Series

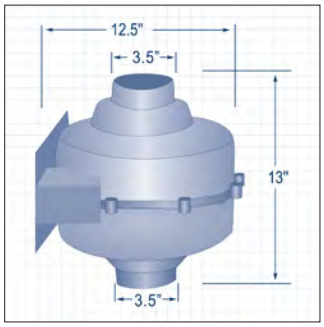
Radon Mitigation Fan

All RadonAway™ fans are specifically designed for radon mitigation. GP Series Fans offer a wide range of performance options that make them ideal for most sub-slab radon mitigation systems.

Features

- Quiet operation
- Water-hardened motor
- Seams sealed under negative pressure (to inhibit radon leakage)
- Mounts on duct pipe or with integral flange
- 3″ diameter ducts for use with 3″ or 4″ pipe
- Electrical box for hard wire or plug in
- ETL Listed - for indoor or outdoor use
- 4 interchangeable GP models

MODEL	P/N	FAN DUCT DIAMETER	WATTS	MAX. PRESSURE"WC	TYPICAL CFM vs. STATIC PRESSURE WC						
					1.0"	1.5"	2.0"	2.5"	3.0"	3.5"	4.0"
GP201	23007-1	3"	40-60	2.0	82	58	5	-	-	-	-
GP301	23006-1	3"	55-90	2.6	92	77	45	10	-	-	-
GP401	23009-1	3"	60-110	3.4	93	82	60	40	15	-	-
GP501	23005-1	3"	70-140	4.2	95	87	80	70	57	30	10



Made in USA with US and imported parts

ETL Listed

All RadonAway inline radon fans are covered by our 5-year, hassle-free warranty

For Further Information Contact

9/12
P/N 02002

Appendix B - POST INSTALLATION CONFIRMATION ANALYTICAL DATA

ANALYTICAL REPORT

Lab Number:	L1615614
Client:	GZA GeoEnvironmental 6296 Fly Road East Syracuse, NY 13057
ATTN:	Ben Haith
Phone:	(315) 437-5444
Project Name:	ULSTER AVE
Project Number:	31.018004.00
Report Date:	06/29/16

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

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1615614-01	IA-1	AIR	1-29 BOICES LANE	05/23/16 16:45	05/23/16
L1615614-02	IA-2	AIR	1-29 BOICES LANE	05/23/16 17:00	05/23/16
L1615614-03	OA-1	AIR	1-29 BOICES LANE	05/23/16 17:10	05/23/16

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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: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
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Case Narrative (continued)

Report Submission

This report replaces the report issued on May 26, 2016. It has been revised to change the project location at the request of the client. A revised CoC was not provided.

Volatile Organics in Air

Canisters were released from the laboratory on May 20, 2016. The canister certification results are provided as an addendum.

Sample L1615614-01 through -03 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample L1615614-02: The sample was diluted and re-analyzed to quantify the results within the calibration range. The result 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 WG897678-3 LCS recoveries for 1,1-Dichloroethane (132%) and 4-Methyl-2-Pentanone (133%) are 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: 06/29/16

AIR

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-01
Client ID: IA-1
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/25/16 22:22
Analyst: RY

Date Collected: 05/23/16 16:45
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.400	0.200	--	1.98	0.989	--		1
Chloromethane	0.560	0.200	--	1.16	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		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
Ethyl Alcohol	126	5.00	--	237	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.91	1.00	--	14.0	2.38	--		1
Trichlorofluoromethane	0.435	0.200	--	2.44	1.12	--		1
iso-Propyl Alcohol	3.59	0.500	--	8.82	1.23	--		1
tert-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
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
2-Butanone	0.657	0.500	--	1.94	1.47	--		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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1

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Project Number: 31.018004.00
Lab Number: L1615614
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SAMPLE RESULTS

Lab ID: L1615614-01
Client ID: IA-1
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 16:45
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		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
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
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.313	0.200	--	1.54	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1

Project Name: ULSTER AVE
Project Number: 31.018004.00
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SAMPLE RESULTS

Lab ID: L1615614-01
Client ID: IA-1
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 16:45
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	80		60-140

Project Name: ULSTER AVE
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Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-01
Client ID: IA-1
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/25/16 22:22
Analyst: RY

Date Collected: 05/23/16 16:45
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.083	0.020	--	0.522	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.048	0.020	--	0.325	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	83		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	81		60-140

Project Name: ULSTER AVE
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Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-02
Client ID: IA-2
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/25/16 22:56
Analyst: RY

Date Collected: 05/23/16 17:00
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.401	0.200	--	1.98	0.989	--		1
Chloromethane	0.612	0.200	--	1.26	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		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
Ethyl Alcohol	691	5.00	--	1300	9.42	--	E	1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	8.38	1.00	--	19.9	2.38	--		1
Trichlorofluoromethane	2.59	0.200	--	14.6	1.12	--		1
iso-Propyl Alcohol	17.6	0.500	--	43.3	1.23	--		1
tert-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
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
2-Butanone	0.519	0.500	--	1.53	1.47	--		1
Ethyl Acetate	0.807	0.500	--	2.91	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

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-02
Client ID: IA-2
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 17:00
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		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
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	0.215	0.200	--	0.810	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
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
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

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-02
Client ID: IA-2
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 17:00
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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	88		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	81		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-02
Client ID: IA-2
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/25/16 22:56
Analyst: RY

Date Collected: 05/23/16 17:00
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.084	0.020	--	0.528	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.115	0.020	--	0.780	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-02 D
Client ID: IA-2
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/26/16 09:04
Analyst: RY

Date Collected: 05/23/16 17:00
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Ethyl Alcohol	753	10.0	--	1420	18.8	--		2

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00
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SAMPLE RESULTS

Lab ID: L1615614-03
Client ID: OA-1
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/25/16 21:48
Analyst: RY

Date Collected: 05/23/16 17:10
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.363	0.200	--	1.79	0.989	--		1
Chloromethane	0.552	0.200	--	1.14	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		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
Ethyl Alcohol	6.41	5.00	--	12.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	4.51	1.00	--	10.7	2.38	--		1
Trichlorofluoromethane	0.204	0.200	--	1.15	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	3.81	0.500	--	13.2	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
2-Butanone	ND	0.500	--	ND	1.47	--		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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-03
Client ID: OA-1
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 17:10
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		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
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
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
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

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-03
Client ID: OA-1
Sample Location: 1-29 BOICES LANE
Date Collected: 05/23/16 17:10
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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	74		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	62		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

SAMPLE RESULTS

Lab ID: L1615614-03
Client ID: OA-1
Sample Location: 1-29 BOICES LANE
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/25/16 21:48
Analyst: RY

Date Collected: 05/23/16 17:10
Date Received: 05/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.085	0.020	--	0.535	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	71		60-140
bromochloromethane	79		60-140
chlorobenzene-d5	62		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG897678-4								
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: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG897678-4								
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: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG897678-4								
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: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG897678-4								
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: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG897678-4								
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

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 05/25/16 13:58

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG897680-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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: WG897678-3								
Chlorodifluoromethane	88		-		70-130	-		
Propylene	93		-		70-130	-		
Propane	107		-		70-130	-		
Dichlorodifluoromethane	84		-		70-130	-		
Chloromethane	104		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	103		-		70-130	-		
Methanol	112		-		70-130	-		
Vinyl chloride	105		-		70-130	-		
1,3-Butadiene	111		-		70-130	-		
Butane	104		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	105		-		70-130	-		
Ethyl Alcohol	119		-		70-130	-		
Dichlorofluoromethane	100		-		70-130	-		
Vinyl bromide	94		-		70-130	-		
Acrolein	100		-		70-130	-		
Acetone	103		-		70-130	-		
Acetonitrile	110		-		70-130	-		
Trichlorofluoromethane	101		-		70-130	-		
iso-Propyl Alcohol	102		-		70-130	-		
Acrylonitrile	105		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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: WG897678-3								
Pentane	105		-		70-130	-		
Ethyl ether	110		-		70-130	-		
1,1-Dichloroethene	106		-		70-130	-		
tert-Butyl Alcohol	101		-		70-130	-		
Methylene chloride	118		-		70-130	-		
3-Chloropropene	118		-		70-130	-		
Carbon disulfide	106		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	102		-		70-130	-		
trans-1,2-Dichloroethene	105		-		70-130	-		
1,1-Dichloroethane	**132**	Q	-		70-130	-		
Methyl tert butyl ether	126		-		70-130	-		
Vinyl acetate	94		-		70-130	-		
2-Butanone	96		-		70-130	-		
cis-1,2-Dichloroethene	95		-		70-130	-		
Ethyl Acetate	81		-		70-130	-		
Chloroform	86		-		70-130	-		
Tetrahydrofuran	91		-		70-130	-		
2,2-Dichloropropane	81		-		70-130	-		
1,2-Dichloroethane	88		-		70-130	-		
n-Hexane	108		-		70-130	-		
Isopropyl Ether	96		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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: WG897678-3								
Ethyl-Tert-Butyl-Ether	103		-		70-130	-		
1,1,1-Trichloroethane	104		-		70-130	-		
1,1-Dichloropropene	94		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	105		-		70-130	-		
Tertiary-Amyl Methyl Ether	98		-		70-130	-		
Dibromomethane	97		-		70-130	-		
1,2-Dichloropropane	110		-		70-130	-		
Bromodichloromethane	107		-		70-130	-		
1,4-Dioxane	103		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	114		-		70-130	-		
Methyl Methacrylate	116		-		70-130	-		
Heptane	122		-		70-130	-		
cis-1,3-Dichloropropene	110		-		70-130	-		
4-Methyl-2-pentanone	**133**	Q	-		70-130	-		
trans-1,3-Dichloropropene	97		-		70-130	-		
1,1,2-Trichloroethane	109		-		70-130	-		
Toluene	89		-		70-130	-		
1,3-Dichloropropane	89		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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: WG897678-3								
2-Hexanone	121		-		70-130	-		
Dibromochloromethane	94		-		70-130	-		
1,2-Dibromoethane	89		-		70-130	-		
Butyl Acetate	90		-		70-130	-		
Octane	84		-		70-130	-		
Tetrachloroethene	87		-		70-130	-		
1,1,1,2-Tetrachloroethane	87		-		70-130	-		
Chlorobenzene	89		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	94		-		70-130	-		
Styrene	95		-		70-130	-		
1,1,2,2-Tetrachloroethane	106		-		70-130	-		
o-Xylene	102		-		70-130	-		
1,2,3-Trichloropropane	94		-		70-130	-		
Nonane (C9)	113		-		70-130	-		
Isopropylbenzene	95		-		70-130	-		
Bromobenzene	95		-		70-130	-		
o-Chlorotoluene	90		-		70-130	-		
n-Propylbenzene	93		-		70-130	-		
p-Chlorotoluene	95		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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: WG897678-3								
4-Ethyltoluene	96		-		70-130	-		
1,3,5-Trimethylbenzene	100		-		70-130	-		
tert-Butylbenzene	100		-		70-130	-		
1,2,4-Trimethylbenzene	110		-		70-130	-		
Decane (C10)	110		-		70-130	-		
Benzyl chloride	119		-		70-130	-		
1,3-Dichlorobenzene	101		-		70-130	-		
1,4-Dichlorobenzene	98		-		70-130	-		
sec-Butylbenzene	100		-		70-130	-		
p-Isopropyltoluene	90		-		70-130	-		
1,2-Dichlorobenzene	99		-		70-130	-		
n-Butylbenzene	106		-		70-130	-		
1,2-Dibromo-3-chloropropane	103		-		70-130	-		
Undecane	117		-		70-130	-		
Dodecane (C12)	122		-		70-130	-		
1,2,4-Trichlorobenzene	104		-		70-130	-		
Naphthalene	97		-		70-130	-		
1,2,3-Trichlorobenzene	96		-		70-130	-		
Hexachlorobutadiene	99		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG897680-3								
Vinyl chloride	108		-		70-130	-		25
1,1-Dichloroethene	106		-		70-130	-		25
cis-1,2-Dichloroethene	94		-		70-130	-		25
1,1,1-Trichloroethane	110		-		70-130	-		25
Carbon tetrachloride	110		-		70-130	-		25
Trichloroethene	100		-		70-130	-		25
Tetrachloroethene	88		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG897678-5 QC Sample: L1615614-02 Client ID: IA-2						
Dichlorodifluoromethane	0.401	0.410	ppbV	2		25
Chloromethane	0.612	0.607	ppbV	1		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	691E	701E	ppbV	1		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	8.38	9.58	ppbV	13		25
Trichlorofluoromethane	2.59	2.63	ppbV	2		25
iso-Propyl Alcohol	17.6	18.0	ppbV	2		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: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG897678-5 QC Sample: L1615614-02 Client ID: IA-2					
2-Butanone	0.519	0.513	ppbV	1	25
Ethyl Acetate	0.807	0.828	ppbV	3	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	0.227	ppbV	5	25
2-Hexanone	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG897678-5 QC Sample: L1615614-02 Client ID: IA-2					
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

Lab Duplicate Analysis
Batch Quality Control

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG897678-5 QC Sample: L1615614-02 Client ID: IA-2					
Ethyl Alcohol	753	740	ppbV	2	25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG897680-5 QC Sample: L1615614-02 Client ID: IA-2					
Vinyl chloride	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.084	0.084	ppbV	0	25
Trichloroethene	ND	ND	ppbV	NC	25
Tetrachloroethene	0.115	0.115	ppbV	0	25

Project Name: ULSTER AVE

Project Number: 31.018004.00

Lab Number: L1615614

Report Date: 06/29/16

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 Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1615614-01	IA-1	0578	#30 SV	05/20/16	222598		-	-	-	Pass	10.0	10.9	9
L1615614-01	IA-1	745	6.0L Can	05/20/16	222598	L1614129-01	Pass	-29.5	-5.7	-	-	-	-
L1615614-02	IA-2	0386	#30 SV	05/20/16	222598		-	-	-	Pass	10.0	10.3	3
L1615614-02	IA-2	1822	6.0L Can	05/20/16	222598	L1614799-02	Pass	-29.9	-5.7	-	-	-	-
L1615614-03	OA-1	0481	#20 SV	05/20/16	222598		-	-	-	Pass	9.5	9.4	1
L1615614-03	OA-1	738	6.0L Can	05/20/16	222598	L1614799-02	Pass	-29.5	-19.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/11/16 17:41
Analyst: RY

Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

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

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

Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:

Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

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

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

Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:

Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/11/16 17:41
Analyst: RY

Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
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: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614129
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614129-01
Client ID: CAN 745 SHELF 33
Sample Location:
Date Collected: 05/09/16 08:30
Date Received: 05/10/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-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	94		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 05/17/16 17:11
Analyst: RY

Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

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

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

Lab Number: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:

Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	84		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/17/16 17:11
Analyst: RY

Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
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: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1614799
Report Date: 06/29/16

Air Canister Certification Results

Lab ID: L1614799-02
Client ID: CAN 618 SHELF 42
Sample Location:
Date Collected: 05/16/16 16:00
Date Received: 05/17/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-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	87		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	84		60-140

Project Name: ULSTER AVE
Project Number: 31.018004.00

Lab Number: L1615614
Report Date: 06/29/16

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(*)
L1615614-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30),TO15-SIM(30)
L1615614-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30),TO15-SIM(30)
L1615614-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	ULSTER AVE	**Lab Number:**	L1615614
Project Number:	31.018004.00	**Report Date:**	06/29/16

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:	ULSTER AVE	**Lab Number:**	L1615614
Project Number:	31.018004.00	**Report Date:**	06/29/16

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.

Report Format: Data Usability Report

Project Name: ULSTER AVE
Project Number: 31.018004.00
Lab Number: L1615614
Report Date: 06/29/16

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 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
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, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, 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**.

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

Serial_No:20291612:14

AIR ANALYSIS

PAGE_____ OF _____

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 5/24/16

ALPHA Job #: L1615614 (was 461555-4) PRB

Client Information

Client: G2A GEOSYNTEC CONSULTANTS
Address: 6296 FLY ROAD EAST SYRACUSE NY
Phone: 315-800-1809
Fax:
Email: BENJAMIN.HAITH@G2A.COM
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: ULSTER AVE
Project Location: 1099 ULSTER AVE
Project #: 31.0186004.00
Project Manager: BENJAMIN HAITH
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

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	☐	Sample Comments (i.e. PID)
615551-01	IA-1	5/23/16	845	1645	-29.5	5.75	AA	RS	6L	745	0578	X						
-02	IA-2	↓	900	1700	-29.8	5.63	AA	RS	6L	1822	0386	X						
-03	OA-1	↓	910	1710	-29.3	9.19	AA	RS	6L	738	0481	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:
	5/23/16 1732		5/23/16 17:32
	5/23/16 2200	AAI	5-23-16 22:00
AAI	5-24-16 02:10		5/24/16 02:10

Appendix C - LIMITATIONS

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) has prepared this report on behalf of, and for the exclusive use of Client for the stated purpose(s) and location(s) identified in the Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. The observations, findings, conclusions, and recommendations in this report were made under the conditions present at the facility during our site visit(s) and described herein. The conclusions presented in this report were based solely upon the services described in this report, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. Conditions in many of the areas reviewed during the reconnaissance are subject to change, therefore the compliance status at any given time could differ from the status at the time of our visit.

3. This report describes the compliance status with respect to the environmental regulatory programs outlined in the report. Compliance with regulatory programs or specific regulatory requirements other than those outlined in this report have not been evaluated.

4. Observations were made of the facility, structures, and operations and activities conducted at the facility as indicated within the report. Where access to portions of the facility, structures, or operations and activities was unavailable or limited, GZA renders no opinion as to the regulatory compliance status of areas, operations, or activities not observed.

5. This study was not intended to be an environmental site assessment. No attempt was made to evaluate whether soil and/or groundwater at the facility is contaminated by chemicals or petroleum products. In addition, GZA renders no opinion as to the presence of hazardous material (including asbestos and polychlorinated biphenyls) on or in any of the exterior or interior processes, equipment, walls, floors, or ceilings of the onsite structures.

6. The purpose of this study was to review the regulatory compliance of current operations and activities conducted at the facility within the limits of the objective and scope of work described in our proposal and/or report. We did not attempt to assess the compliance status of present or past owners or operators of the facility.

7. Unless otherwise specified in the report, GZA did not perform testing or analyses to determine the presence or concentration of any chemicals, oils, asbestos, or polychlorinated biphenyls at the site buildings or in the environment at the site. Where such analyses have been conducted by an outside laboratory, GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

COMPLIANCE WITH CODES AND REGULATIONS

8. The regulatory compliance status described in this report has been evaluated based on our interpretation of regulations, and where appropriate, the interpretations provided by the applicable regulatory authority personnel at the time of our study. In some cases, these interpretations require subjective judgment and we cannot guarantee that all applicable regulatory authority personnel will interpret the regulations in the same manner as we have, or in the manner that the agency personnel we may have spoken to have. Applicable regulatory authorities' interpretations, requirements, and enforcement policies vary from district office to district office, from state to state, and between federal and state agencies. In addition, statues, rules, standards, and regulations may be legislatively changed and inter-agency and intra-agency policies may be changed from present practices from time to time.

9. In preparing this report, GZA has relied on certain information provided by federal, State, or local applicable regulatory authorities and other parties referenced herein, and on information contained in the files of federal, State, and/or local applicable regulatory authorities available to GZA at the time of our compliance study. Although there may have been some degree of overlap in the information provided by these various sources, GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of the study. Where information provided by Client was not complete, representations regarding the regulatory compliance of such operations and activities has not been made.

INTERPRETATION OF DATA

10. GZA's work was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed that degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the study. No warranty, express or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by an applicable regulatory authority.

NEW INFORMATION

11. In the event that the Client or others authorized to use this report obtain information on environmental regulatory compliance issues at the facility not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this study, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

12. GZA recommends that we be retained to evaluate the implementation of our recommendations provided in our report(s) to address the regulatory requirements cited. By retaining GZA, this will allow us the opportunity to (1) evaluate whether or not the recommendations have been made in a manner compliant with the regulatory requirements or industry best management practices identified, (2) evaluate whether the manner of implementation creates a potential new finding, and (3) evaluate whether the manner of implementation effects or changes the conditions on which our opinions were made.

GZA GeoEnvironmental, Inc.