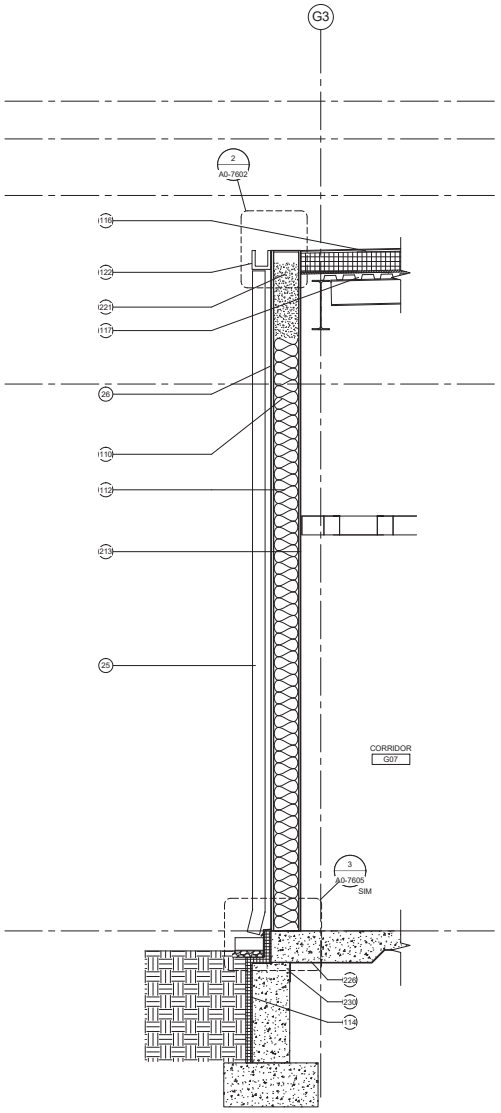
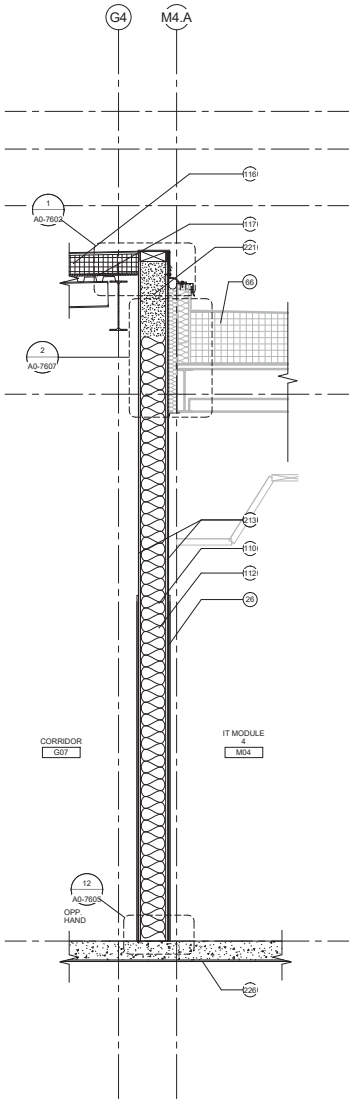
APPENDIX O

AS-BUILT SSDS AND VAPOR BARRIER DRAWINGS



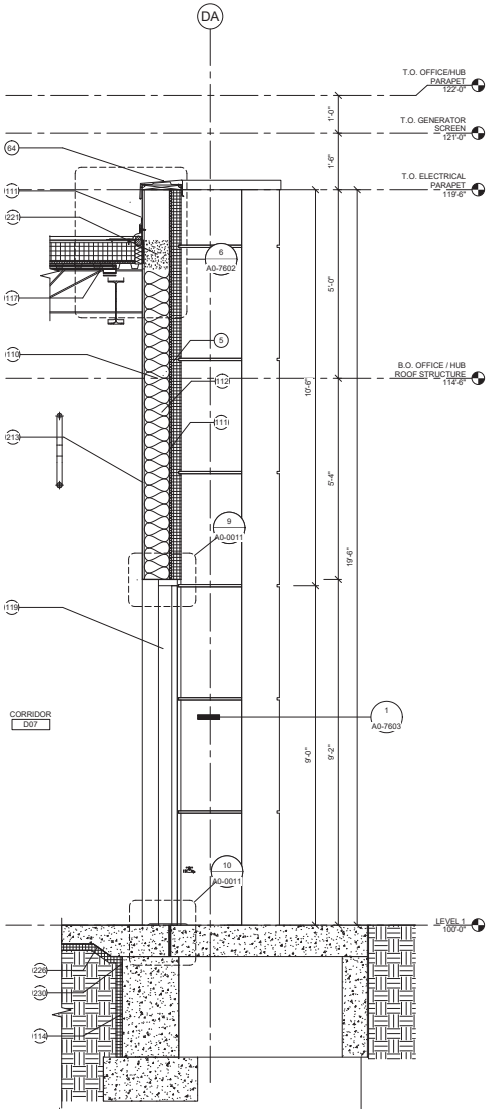
3 CORRIDOR WALL @ (F) BLADE ROOM

3/4" = 1'-0"



2 WALL SECTION @ IT MODULE

3/4" = 1'-0"



1 METAL PANEL 1 @ DOOR

3/4" = 1'-0"

GENERAL NOTES

A. REFER TO DRAWING A0-0000-PH2 FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS.
B. REFER TO PRECAST PANEL TYPES ON DRAWINGS AE-0100 THROUGH AE-0103 FOR PRECAST TYPE 1 AND TYPE 2 REVEAL DIMENSIONS.

KEYED NOTES

5	INSULATED METAL PANEL, TYPE 1
25	DOWNSPOUT WITH SPLASHBLOCK
26	EXTERIOR 1/4" COMPOSITE METAL PANEL SYSTEM
64	PREFABRICATED METAL COPING CAP
66	ROOFING BY TMI
110	BATT INSULATION
111	5/8" EXTERIOR SHEATHING
112	8" METAL STUDS @ 16" O.C.
114	BOARD INSULATION
116	TYPICAL ROOF, SEE SHEET A0-7600/A0-7601
117	TYPICAL STEEL ROOF DECK, SEE STRUCTURAL DRAWINGS
119	HM DOUBLE FLUSH EXTERIOR DOOR
122	TYPICAL EXTERIOR GUTTER
213	5/8" GWB
221	CLOSED CELL SPRAY FOAM INSULATION
226	15 MIL VAPOR BARRIER, CONTINUOUS UNDER SLAB. OVERLAP AND SEAL AT SEAMS PER MFG SPECIFICATIONS.
230	FOLLOW MFG RECOMMENDATIONS FOR LENGTH OF VAPOR BARRIER SEAL, ADHESIVE REQUIREMENTS, ATTACHMENT DETAILS AND INSTALLATION PROCEDURES.

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HOPE FURRER ASSOCIATES

Dewberry

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140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:
ARCHITECTURAL
WALL SECTIONS

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DRAWING NUMBER:
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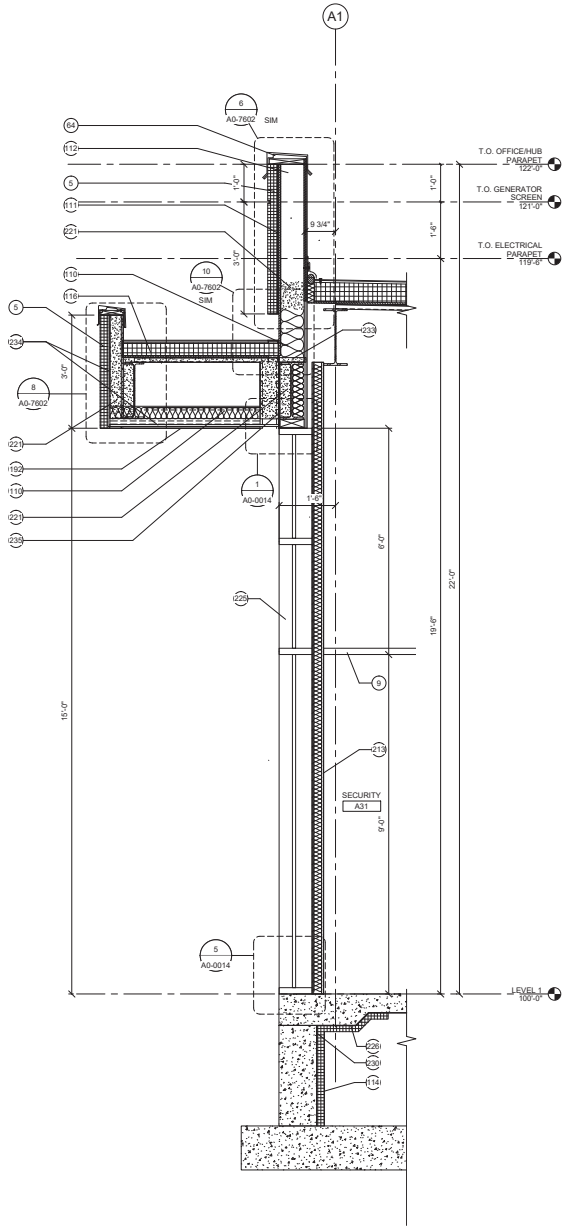
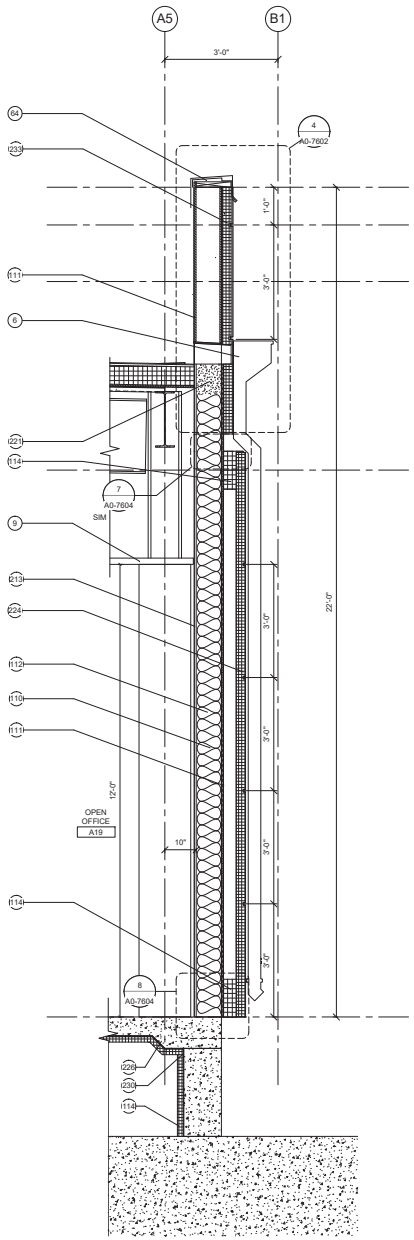
GENERAL NOTES

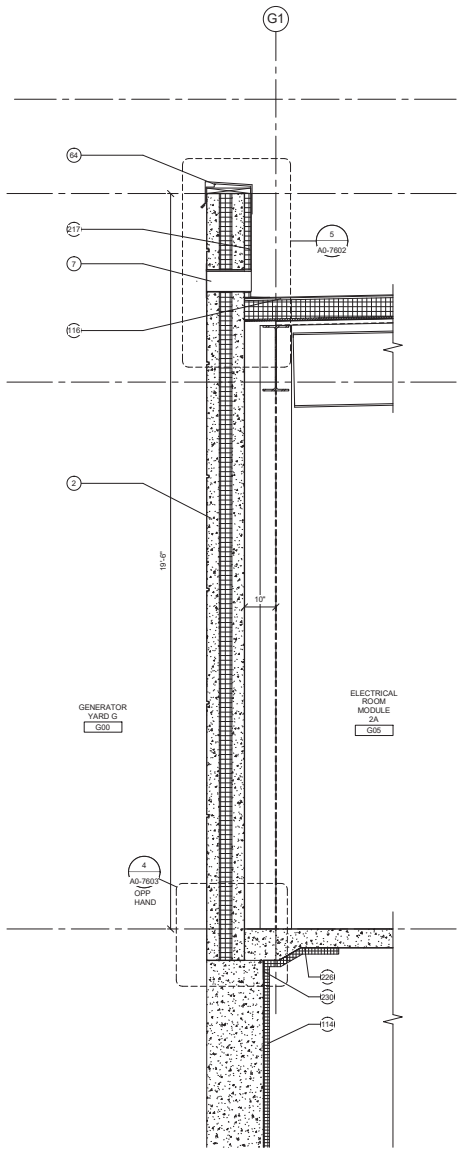
A. REFER TO DRAWING A0-0000-PH2 FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS.
B. REFER TO PRECAST PANEL TYPES ON DRAWINGS AE-0100 THROUGH AE-0103 FOR PRECAST TYPE 1 AND TYPE 2 REVEAL DIMENSIONS.



3 SECTION @ ADMIN CANOPY
3/4" = 1'-0"



2 PRECAST 3 @ SCUPPER
3/4" = 1'-0"



1 WALL SECTION - A10
3/4" = 1'-0"

KEYED NOTES

2	INSULATED PRECAST PANEL, TYPE 1
5	INSULATED METAL PANEL, TYPE 1
6	SCUPPER WITH DOWNSPOUT. PROVIDE WOOD BLOCKING IN WALL CAVITY AS REQUIRED TO SUPPORT DOWNSPOUT.
7	EMERGENCY OVERFLOW SCUPPER
9	2'X 2' ACOUSTIC CEILING @ HEIGHT INDICATED (ACT-1)
64	PREFABRICATED METAL COPING CAP
110	BATT INSULATION
111	5/8" EXTERIOR SHEATHING
112	8" METAL STUDS @ 16" O.C.
114	BOARD INSULATION
116	TYPICAL ROOF, SEE SHEET A0-7600/A0-7601
192	PREFINISHED SHEET METAL SOFFIT @ INDICATED HEIGHT
213	5/8" GWB
217	RIGID INSULATION ON 2" Z-FURRING
221	CLOSED CELL SPRAY FOAM INSULATION
224	INSULATED METAL PANEL, TYPE 1, ON 4" Z-FURRING
225	ALUMINUM EXTERIOR CURTAINWALL SYSTEM
226	15 MIL VAPOR BARRIER, CONTINUOUS UNDER SLAB. OVERLAP AND SEAL AT SEAMS PER MFG SPECIFICATIONS.
230	FOLLOW MFG RECOMMENDATIONS FOR LENGTH OF VAPOR BARRIER SEAL, ADHESIVE REQUIREMENTS, ATTACHMENT DETAILS AND INSTALLATION PROCEDURES.
233	ALL VOID SPACES BETWEEN INTERIOR AND EXTERIOR FRAMING TO BE SEALED AIR TIGHT, CLOSED CELL SPRAY FOAM INSULATION, OR EQUAL
234	5/8" EXTERIOR SHEATHING WITH AIR BARRIER
235	BLUESKIN TAPE @ AIR BARRIER AND PLYWOOD BLOCKING TRANSITION

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DESIGNED: APPROVED:
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2020.02.26 11:15:31-05'00'

HOPE FURRER ASSOCIATES
Dewberry

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:
ARCHITECTURAL
WALL SECTIONS

ACAD FILE: DRAWING SCALE: As indicated

DRAWING NUMBER:
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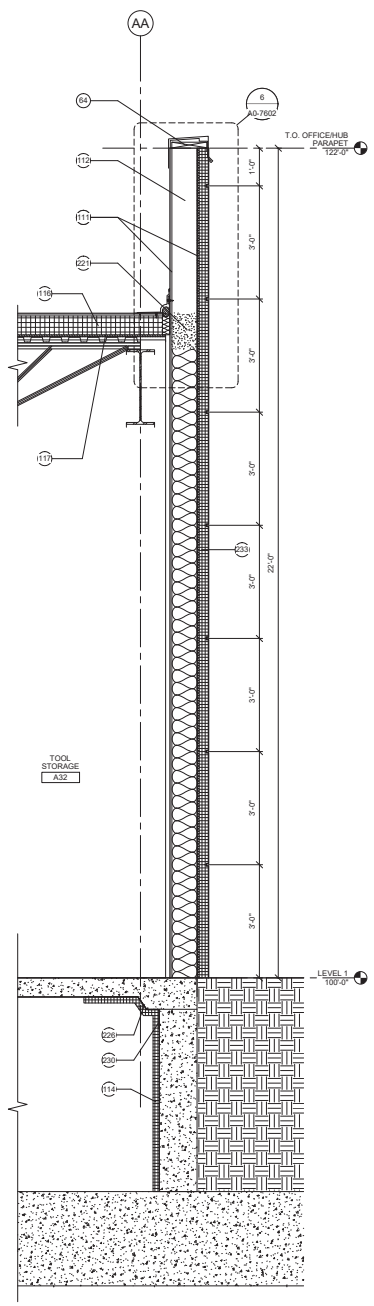
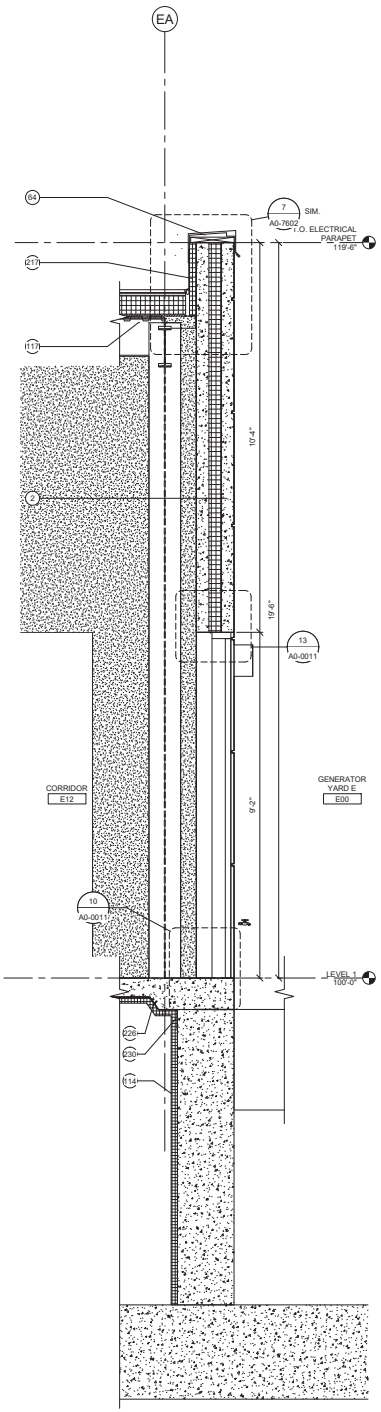
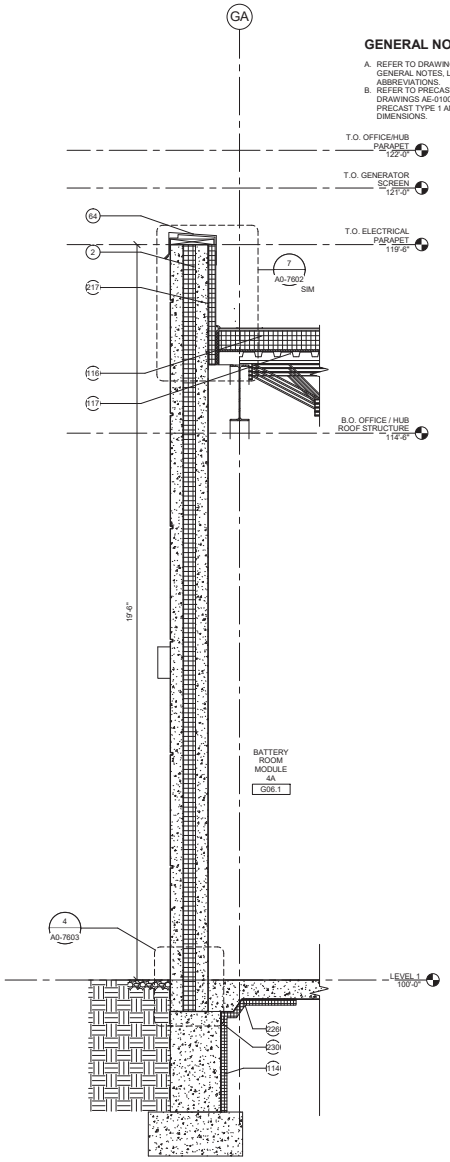


3 FULL-HEIGHT METAL PANEL 1
3/4" = 1'-0"



2 PRECAST 1 @ DOOR
3/4" = 1'-0"



1 WALL SECTION @ PRECAST 1
3/4" = 1'-0"

GENERAL NOTES

A. REFER TO DRAWING A0-0000-PH2 FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS.
B. REFER TO PRECAST PANEL TYPES ON DRAWINGS AE-0100 THROUGH AE-0103 FOR PRECAST TYPE 1 AND TYPE 2 REVEAL DIMENSIONS.

KEYED NOTES

2	INSULATED PRECAST PANEL, TYPE 1
64	PREFABRICATED METAL COPING CAP
111	5/8" EXTERIOR SHEATHING
112	8" METAL STUDS @ 16" O.C.
114	BOARD INSULATION
116	TYPICAL ROOF, SEE SHEET A0-7600/A0-7601
117	TYPICAL STEEL ROOF DECK, SEE STRUCTURAL DRAWINGS
217	RIGID INSULATION ON 2" Z-FURRING
221	CLOSED CELL SPRAY FOAM INSULATION
226	15 MIL VAPOR BARRIER, CONTINUOUS UNDER SLAB, OVERLAP AND SEAL AT SEAMS PER MFG SPECIFICATIONS.
230	FOLLOW MFG RECOMMENDATIONS FOR LENGTH OF VAPOR BARRIER SEAL, ADHESIVE REQUIREMENTS, ATTACHMENT DETAILS AND INSTALLATION PROCEDURES.
233	ALL VOID SPACES BETWEEN INTERIOR AND EXTERIOR FRAMING TO BE SEALED AIR TIGHT, CLOSED CELL SPRAY FOAM INSULATION, OR EQUAL

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0	ISSUE FOR CONSTRUCTION	08/23/18

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DRAWN: Author
REVIEWED: Checker
DESIGNED: Designer
APPROVED: Approver
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Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

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WALL SECTIONS

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DRAWING SCALE: As indicated

DRAWING NUMBER:
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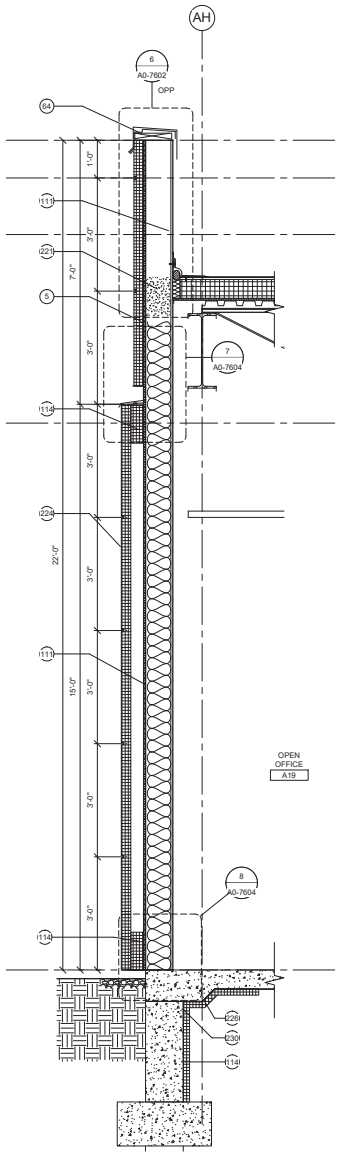
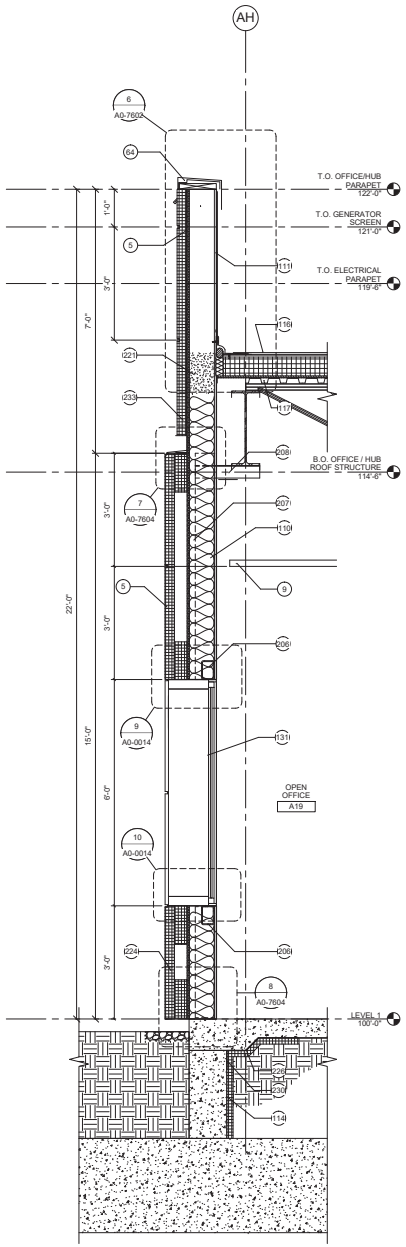


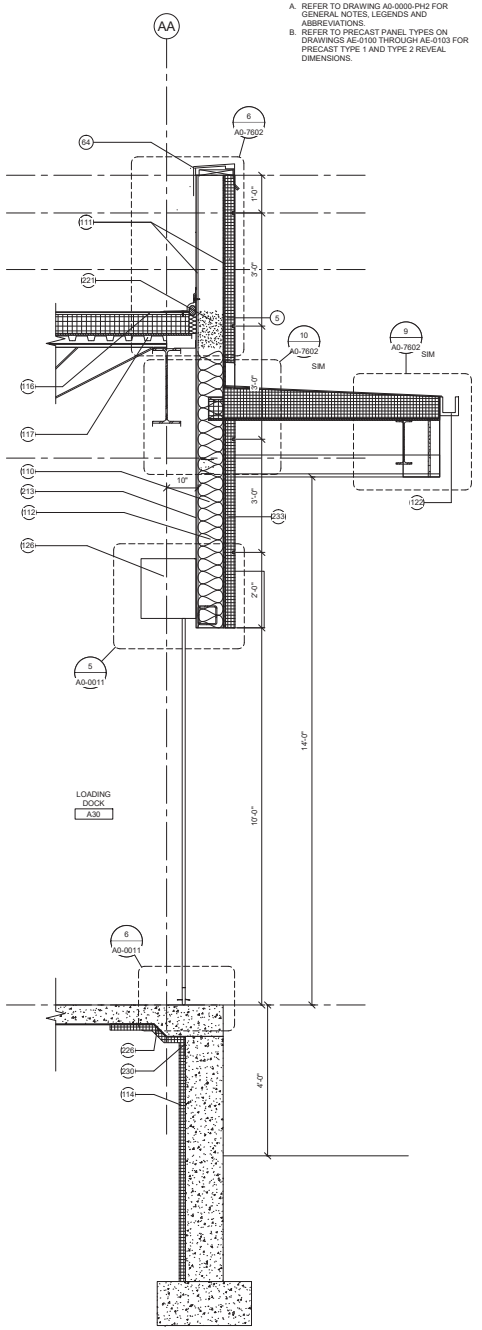
3 PRECAST 3 @ ADMIN
3/4" = 1'-0"



2 PRECAST 3 @ PUNCH WINDOW
3/4" = 1'-0"

GENERAL NOTES

A. REFER TO DRAWING A0-0000-PH2 FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS.
B. REFER TO PRECAST PANEL TYPES ON DRAWINGS AE-0100 THROUGH AE-0103 FOR PRECAST TYPE 1 AND TYPE 2 REVEAL DIMENSIONS.



1 METAL PANEL 1 @ LOADING DOCK
3/4" = 1'-0"

KEYED NOTES

5	INSULATED METAL PANEL, TYPE 1
9	2'X 2' ACOUSTIC CEILING @ HEIGHT INDICATED (ACT-1)
64	PREFABRICATED METAL COPING CAP
110	BATT INSULATION
111	5/8" EXTERIOR SHEATHING
112	8" METAL STUDS @ 16" O.C.
114	BOARD INSULATION
116	TYPICAL ROOF, SEE SHEET A0-7600/A0-7601
117	TYPICAL STEEL ROOF DECK, SEE STRUCTURAL DRAWINGS
122	TYPICAL EXTERIOR GUTTER
126	OVERHEAD COILING DOOR 8' X 10'
131	EXTERIOR GLAZING
206	HSS TUBE FRAME FOR WINDOWS, SEE STRUCTURAL DRAWINGS
207	HSS TUBE (BEYOND)
208	STEEL ANGLE CONNECTION, SEE STRUCTURAL DRAWINGS
213	5/8" GWB
221	CLOSED CELL SPRAY FOAM INSULATION
224	INSULATED METAL PANEL, TYPE 1, ON 4" Z-FURRING
226	15 MIL VAPOR BARRIER, CONTINUOUS UNDER SLAB. OVERLAP AND SEAL AT SEAMS PER MFG SPECIFICATIONS.
230	FOLLOW MFG RECOMMENDATIONS FOR LENGTH OF VAPOR BARRIER SEAL, ADHESIVE REQUIREMENTS, ATTACHMENT DETAILS AND INSTALLATION PROCEDURES.
233	ALL VOID SPACES BETWEEN INTERIOR AND EXTERIOR FRAMING TO BE SEALED AIR TIGHT. CLOSED CELL SPRAY FOAM INSULATION, OR EQUAL

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1	BULLETIN-002	11/08/18
0	ISSUE FOR CONSTRUCTION	08/23/18

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CLIENT PROJECT NO.:
DRAWN: Author
REVIEWED: Checker
DESIGNED: Designer
APPROVED: Approver
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HOPE FURRER ASSOCIATES
Dewberry

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:
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WALL SECTIONS

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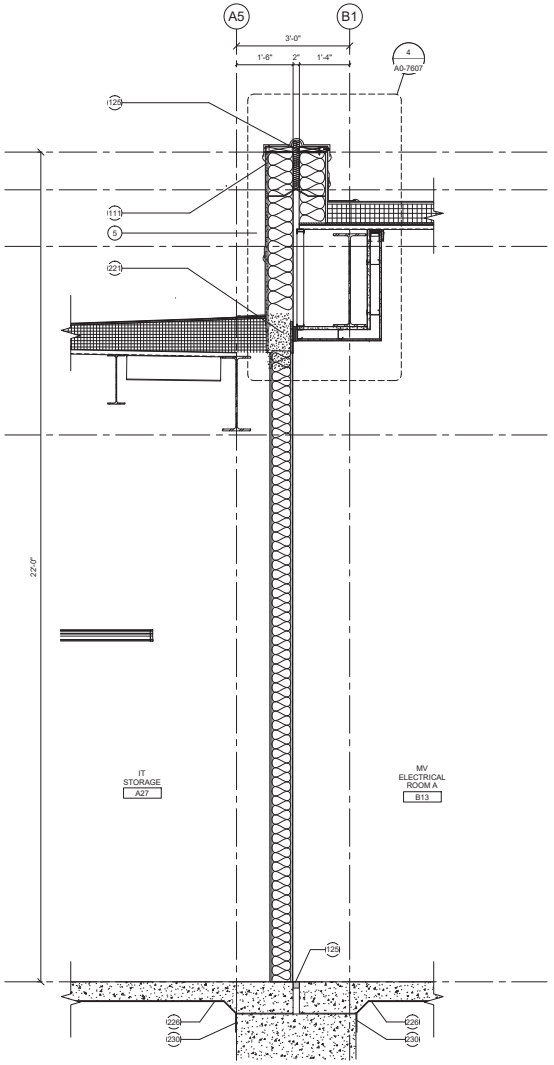
DRAWING SCALE: As indicated

DRAWING NUMBER:
EC02-A0-7303

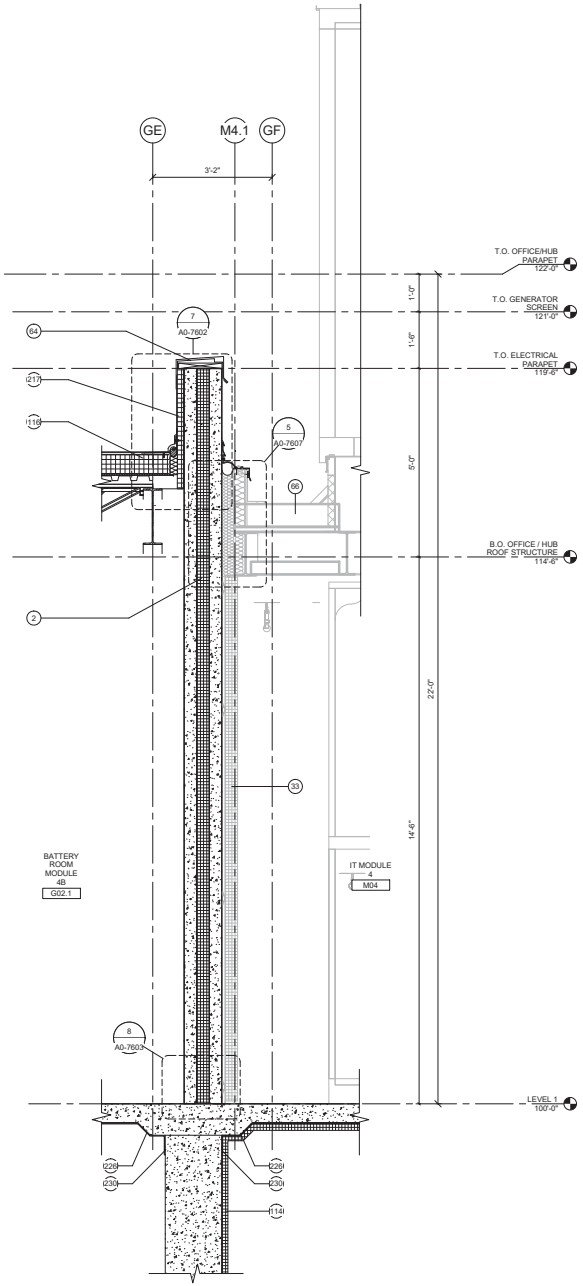
2/25/2020 4:38:27 PM

GENERAL NOTES

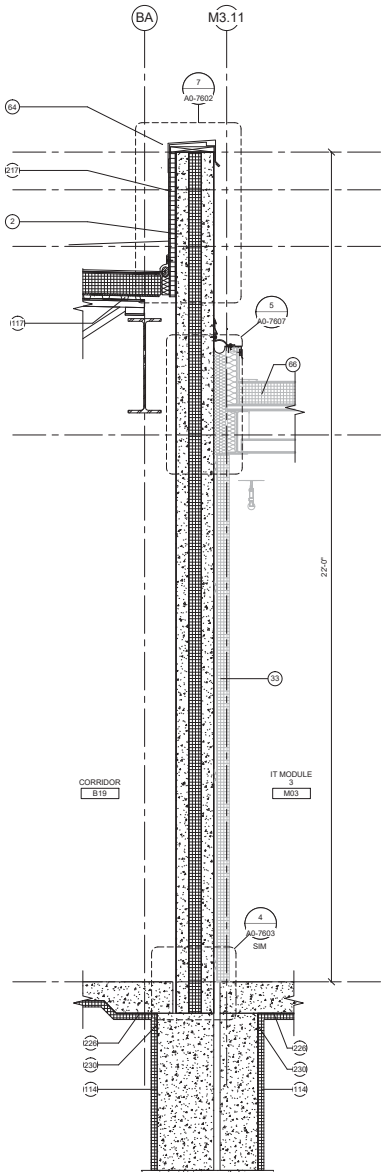
A. REFER TO DRAWING A0-0000-PH2 FOR GENERAL NOTES, LEGENDS AND ABBREVIATIONS.
B. REFER TO PRECAST PANEL TYPES ON DRAWINGS AE-0100 THROUGH AE-0103 FOR PRECAST TYPE 1 AND TYPE 2 REVEAL DIMENSIONS.



3 HUB TO ADMIN
3/4" = 1'-0"



2 PRECAST 1 @ I.T. MODULE
3/4" = 1'-0"



1 PRECAST 1 TO I.T. MODULE
3/4" = 1'-0"

KEYED NOTES

2	INSULATED PRECAST PANEL, TYPE 1
5	INSULATED METAL PANEL, TYPE 1
33	INTERIOR WALL, BY TMI
64	PREFABRICATED METAL COPING CAP
66	ROOFING BY TMI
111	5/8" EXTERIOR SHEATHING
114	BOARD INSULATION
116	TYPICAL ROOF, SEE SHEET A0-7600/A0-7601
117	TYPICAL STEEL ROOF DECK, SEE STRUCTURAL DRAWINGS
125	BUILDING EXPANSION JOINT
217	RIGID INSULATION ON 2" Z-FURRING
221	CLOSED CELL SPRAY FOAM INSULATION
226	15 MIL VAPOR BARRIER, CONTINUOUS UNDER SLAB. OVERLAP AND SEAL AT SEAMS PER MFG SPECIFICATIONS.
230	FOLLOW MFG RECOMMENDATIONS FOR LENGTH OF VAPOR BARRIER SEAL, ADHESIVE REQUIREMENTS, ATTACHMENT DETAILS AND INSTALLATION PROCEDURES.

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1	BULLETIN-002	11/08/18
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Dewberry

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Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:
ARCHITECTURAL
WALL SECTIONS

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DRAWING SCALE: As indicated

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APPENDIX P

SOIL VAPOR INTRUSION INVESTIGATION REPORT

RPC – CORE AREA SITE

140 OLD ORANGEBURG ROAD
ORANGETOWN, NEW YORK

SOIL VAPOR INTRUSION INVESTIGATION REPORT

NYSDEC BCP Number: C344080

Prepared for:

JPMorgan Chase Bank, National Association

10 South Dearborn

Chicago, Illinois 60603

Prepared by:

Goldberg-Zoino Associates of New York P.C. d/b/a GZA GeoEnvironmental of New York (GZA)
104 West 29th Street, 10th Floor
New York, NY 10001
212-594-8140

APRIL 2020

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SOIL VAPOR INTRUSION INVESTIGATION REPORT

1.0 INTRODUCTION

JPMorgan Chase Bank, National Association (JPMC) has entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) under the New York State Brownfield Cleanup Program (NYS BCP) as a "volunteer" to investigate and remediate a property located at 140 Old Orangeburg Road in the Town of Orangetown, Rockland County, New York (Site; NYSDEC Site No. C344080). **Figures 1 and 2** present the Site Location Plan and Former (i.e. pre-development) Site Plan, respectively.

This Soil Vapor Intrusion Investigation Report documents the soil vapor investigations conducted prior to remediation and Site redevelopment and the vapor intrusion investigation conducted in the new buildings constructed on site after the remedial action was complete and before site occupancy. Specifically, this report summarizes the results of soil vapor and vapor intrusion investigations completed during a supplemental investigation performed in April 2017, during the RI performed between September 2017 and January 2018 and post-remediation sampling performed between December 2019 and February 2020. This report is subject to the limitations described in **Appendix A**.

1.1 SITE LOCATION AND DESCRIPTION PRIOR TO REDEVELOPMENT

The Site is located at 140 Old Orangeburg Road and consists of approximately 61 acres generally bounded by Convent Road, Third Avenue, Oak Street and First Avenue in Orangetown, Rockland County, New York. The Site is identified on the Orangetown Tax Map as Section 73.08 of Block 1, Lot 1. It previously was improved with 32 abandoned and derelict buildings constructed between 1927 and 1936. The remainder of the Site contained paved parking areas, walkways, roadways and landscaped areas, many of which were overgrown.

The Site was identified as the "Core Area" of the former 600+ acre Rockland Psychiatric Center (RPC), a psychiatric facility run by the New York State Office of Mental Health (NYSOMH) which began operations in the early 1930s. Buildings on Site were formerly used as patient

wards, a hospital, an auditorium, for manufacturing items such as pens and furniture, and for recreation. The Buildings on Site were identified as Buildings 2, 6, 8, 9, 4, 3, 7, 18, 32, 34, 36, 38, 95, 96, 97, 98, 99, 100, 101, 12, 14, 26, 28, 10, 13, 15, 16, 40, 41, 42, 102, and 115. The Site buildings ranged in size from 12,000 to 118,000 square feet. Most of the buildings had multiple floors and contained basements (partial or full), unimproved large crawl spaces and utility and patient tunnels.

1.2 SITE REDEVELOPMENT

The Site is currently owned by JPMC. JPMC purchased the Site from the Town of Orangetown in 2017. The Town purchased the Site with all its structures and improvements from the State of New York in 2003. During redevelopment, the above and below grade structures on Site were remediated and demolished.

The overall site remediation and redevelopment project included the abatement, remediation and demolition of 32 buildings, containing 1.1 million square feet (sf) of floor space, and underground utility tunnels throughout the 61-acre Site and the construction of a 257,000 sf single-story computer Data Center to be utilized by JPMC.

After demolition was completed, the Site, where ground surface elevation ranged from 95 ft to 152 ft above mean sea level (msl), was regraded for a final building floor slab at an approximate elevation of 140 ft above msl. New utilities including 139 KV electrical service and a new water main, as well as, a stormwater management basin and sanitary pump station were installed on the parcel.

The Data Center is located on the northern portion of the Site (**Figure 3**). It was designed to meet the US Green Building Council's LEED Standards. Currently the Data Center Building is 189,000 sf with plans to build out an additional 71,000 sf within the next five to ten years. In addition to the main Data Center Building, Site redevelopment also includes the construction of a smaller Visitors and Vehicle Reception Center Building (VVRC), interior roadways and a parking lot.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

The Site is in a suburban section of Rockland County, approximately 1,200 feet east of Lake Tappan, a reservoir used for drinking water. The northern Site boundary includes Convent Road and one Orangetown-owned property at the northwestern corner. The eastern Site boundary includes the western fence line of the Broadacres Golf Club in the north, First Avenue in the central portion of the Site and State-owned land that includes Buildings 1 and 5 of the former RPC in the south. Oak Street forms the southern Site boundary and Third Avenue forms the western Site boundary except for the Orangetown-owned property at the northwestern corner. To the north of Convent Road are commercial establishments such as Riverside Motors and Randy's Convent Road Garage and residential housing. The Broadacres Golf Club, the Blaisdell Addiction Treatment Center and the current Rockland Children's Psychiatric Center are located east and southeast of the Site. To the south and southwest, respectively, are the Nathan Kline Institute and recreational fields for the Town of Orangetown. To the west are buildings that supported the former RPC such as the powerhouse, former laundry, wastewater treatment building, service buildings, a fire station, followed by decommissioned landfills/forested areas and then Lake Tappan. To the northwest is the former Children's Psychiatric Center, currently vacant.

A summary of adjacent land use as determined from aerial photographs and Site reconnaissance is summarized below.

ADJOINING PROPERTY INFORMATION	
Direction	**Properties**
North	Convent Road, beyond which are commercial and residential properties.
East	First Avenue, beyond which is the Broad Acres Golf Club and structures associated with the currently operating RPC
South	Oak Street, beyond which are RPC hospital buildings
West	Third Avenue, beyond which are support buildings for the current/former RPC campus. Open forested land and Lake Tappan are located further west

2.0 SITE HISTORY

The following sections outline the Site History, including previous soil vapor environmental assessments of the Site and surrounding area.

2.1 Past Uses and Ownership

The Site was owned by New York State from 1925 to 2003 and the Town of Orangeburg from 2003 to 2017. JPMC entered the Site into the Brownfield Cleanup Program in July 2017, prior to their purchase of the Site in October 2017.

The entire RPC was a 600+ acre facility that began its operations in the early 1930s. Construction began on the first building in 1927 and the majority of the campus buildings were completed by 1931. The Kid's Center (aka original Children's Group campus) was constructed in the mid to late 1930s and was located at the northeast corner of the Site. The RPC operated as a self-contained/self-sustaining facility, providing its own power, water and wastewater treatment for many years. Additionally, the RPC farmed to grow its own food, manufactured furniture and other items for sale and had its own recreation facilities including a swimming pool, bowling alley and tennis courts. Employees were housed in cottages located at the perimeter of the patient wards. At its peak of operation (in the 1950's), the patient population was more than 9,600. In the 1970's, the inpatient population at RPC began to decline and, for the most part, the main campus has been unused since the early 1990s.

Historically, the RPC generated its own heat via a steam heating system. The steam was generated at the powerhouse (Building 50) which is located off-Site to the west of the Site boundary. The powerhouse is currently operating in a limited capacity to service RPC buildings located off-Site. The heating systems in the buildings on Site were inoperable at the time of JPMC purchase, with much of the copper piping stolen by vandals. Water was supplied to the Site by wells located on other portions of the RPC campus until about the 1970s when the campus was connected to the municipal water system (Suez North America). At the time of the RI, the water supply system on Site was shut-off. The RPC also had its own sewage treatment facility (Building 47 located southwest of the Site). The Site buildings were connected to the

sewage treatment facility. In the 1970's, a pump station was constructed near Building 47 and, since that time, sewage/wastewater had been conveyed to the Orangetown Treatment Plant located approximately two miles southeast of the Site. The Site's many buildings were connected to the municipal wastewater system, but the system was not operational at the time of the RI. These connections were terminated as part of the IRM and final remedy. At the time of the RI, electrical service was shut-off at the Site and was not functional due to vandalism.

2.2 Historic Investigations Related to Potential Vapor Intrusion

2.2.1 Proposed Remedial Action Plan, Rockland Psychiatric Center Former Laundry Facility, Town of Orangetown, Rockland County, NY, Site No. 344011, Division of Environmental Remediation, New York State Department of Environmental Conservation, October 2006

The 2006 Proposed Remedial Action Plan prepared by NYSDEC identifies an off-site groundwater contamination plume consisting of tetrachloroethylene (PCE) and lesser amounts of its breakdown products near the RPC laundry building (Building 47) and wastewater treatment plant, located off-Site southwest of the Site boundary. NYSDEC reports that this contamination has been investigated since it was first detected in 1998, after a fish kill observed in a tributary stream on RPC property that feeds the adjacent Lake Tappan reservoir. Initial investigations focused on delineating the extent of the contamination and determining a source area, and the impact to the local overburden aquifers. Later investigations were concerned with remediation of the impacted aquifers and enlarging the scope of delineation to include the use of deeper and more distant former bedrock water supply wells as monitoring wells. Plume delineation indicates that the plume does not extend onto the Site. The plume is hydrogeologically downgradient of the Site (groundwater flow direction on Site is to the west) and is not anticipated to impact Site groundwater. However, the plume could potentially impact soil gas beneath the Site thereby creating a potential for vapor intrusion into, at that time, proposed Site buildings.

3.0 PRE-REMEDIATION SOIL VAPOR INVESTIGATIONS

The Site was investigated in accordance with the scope of work presented in the NYSDEC-approved revised Remedial Investigation Work Plan (RIWP). The RIWP was submitted to NYSDEC on July 18, 2017 and approved by NYSDEC in a letter dated August 4, 2017. Additionally, GZA had previously performed a preliminary investigation at and around the Site. The findings of that investigation were summarized in the July 2017 RIWP and are provided in the following Section 3.1. Details of the soil vapor remedial investigation, conducted from September 2017 through January 2018, are presented in the following Section 3.2.

3.1 Supplemental Investigation

3.1.1 Remedial Investigation Work Plan, RPC – CORE AREA SITE, NYSDEC Site No. C344080, GZA GeoEnvironmental, 2017 July

In April 2017, GZA performed a supplemental Site investigation designed to collect additional soil gas data to evaluate the potential impact to soil vapor on Site.

Five soil gas samples (SG-1 through SG-5) were collected for TO-15 analysis. Two samples (SG-1 and SG-2) were collected in the southwest portion of the Site to evaluate the potential impact of the off-site plume associated with the laundry facility; two samples (SG-3 and SG-4) were collected within the footprint of the proposed data center building in the northern portion of the Site; one sample (SG-5) was collected at the northern boundary of the Site adjacent to the off-site auto repair/gasoline stations.

The soil vapor probes were installed in asphalt/concrete paved areas with a direct push drill rig to 5 ft bgs at SG-1 and SG-2 and 3 ft bgs at SG-3 through SG-5 where groundwater was encountered at 5 ft bgs. The soil vapor points included a hollow rod fitted with a screened, stainless-steel, expendable drive point. After the hollow rod was advanced, dedicated Teflon™ tubing with a threaded fitting was connected to the sampling probe. Following connection of the tubing to the sampling probe, the hollow rod was removed, and an airtight seal was established at the surface using hydrated bentonite.

Sampling was completed in general accordance with the October 2006 NYSDOH Soil Vapor Intrusion Guidance Document. The adequacy of the bentonite seal was tested using a 6-inch diameter PVC shroud that was placed over the borehole and sealed from the ambient air using bentonite. Helium tracer gas was then pumped into the shroud. The above grade end of the tubing, which was the sample collection point, was then attached to a peristaltic pump for purging. A helium gas detector was then utilized to measure helium concentrations in the above grade end of the tubing. The adequacy of the seal was verified by direct helium readings of less than 10% of total helium in the shroud. Following completion of the purging and the helium tracer test, dedicated Teflon™ tubing was used to connect each probe to a laboratory-supplied 2.7-liter Summa canister equipped with a flow regulator calibrated for less than 0.2 liters per minute. Soil vapor samples were collected in Summa canisters for 20 minutes. Upon completion, the tubing was removed and the soil vapor point was backfilled to near grade surface with the drill cuttings. Then the ground surface was restored using grout and concrete patch.

Sample SG-3 was the only sample that contained a TO-15 compound at a concentration above an applicable guidance. Sample SG-3 contained trichloroethene (TCE) at a concentration of 6.13 micrograms per cubic meter (µg/m3) which is slightly above the New York State Department of Health (NYSDOH) Air Guidance Value of 2 µg/m3 and the NYSDOH Soil Vapor Intrusion Matrix value of 6 µg/m3. In addition, several refrigerants, a chemical associated with rubber, and xylene were detected above indoor air quality background concentrations published in the NYSDOH Vapor Intrusion Guidance Document and are considered de minimus. Sample SG-3 was located west of former Building 38 where furniture manufacturing was historically performed. Soil gas sample locations are shown on **Figure 4** and analytical results are presented in **Table 1**. Laboratory reports are provided in **Appendix B** and Data Usability Summary Reports (DUSRs) are provided in **Appendix C**.

3.2 RI Soil Vapor Investigation

As part of the RI, GZA advanced 32 soil vapor probes at locations across the Site (see **Figure 5**) to evaluate the extent of soil gas impacts on Site, as outlined in the approved revised RIWP.

3.2.1 Soil Gas Sampling

On September 25 through 29, 2017, soil gas samples were collected on Site at a frequency of approximately one sample per two acres for a total of 32 soil gas samples (SG-6 through SG-37). Soil gas sample locations were distributed across the Site and biased toward preferential pathways (e.g. adjacent to subgrade tunnels) and/or suspected source areas, including Building 4 which reportedly contained refrigerated rooms. Six of the proposed soil gas sampling locations were located within the proposed redevelopment building footprint. Sampling was completed in general accordance with the October 2006 *NYSDOH Soil Vapor Intrusion Guidance Document*. **Figure 5** presents the locations of the RI soil gas sampling points.

The soil gas samples were collected using a Geoprobe 6610 DT to install a hollow rod fitted with a screened, stainless-steel, expendable drive point. The rod was installed to a depth of five feet below ground surface (bgs). After the hollow rod was advanced, dedicated Teflon™ tubing with a threaded fitting was connected to the sampling probe, the hollow rod was removed, native soil was allowed to collapse around the stainless-steel screen and a hydrated bentonite seal was installed at the ground surface.

The adequacy of the bentonite seal was tested using an 8-inch diameter PVC shroud placed over the borehole and sealed from the ambient air using bentonite. Helium tracer gas was pumped into the shroud. The above grade end of the tubing was attached to a low-flow SKC air pump for purging. A helium gas detector was utilized to measure helium concentrations in the above grade end of the tubing. The adequacy of the seal was verified by direct helium readings (e.g. less than 10% of total helium in shroud).

Following completion of the purging and the helium tracer test, dedicated Teflon™ tubing was used to connect the probe to a laboratory-supplied 6-liter Summa canister equipped with a flow regulator calibrated for less than 0.2 liters per minute. Each soil vapor sample was collected in a Summa canister for 20 minutes. Upon completion, the tubing was removed, and the soil vapor point was backfilled to near grade surface with the drill cuttings and/or bentonite. The sample locations were recorded in the field using a hand-held GPS device (Trimble Geo7X). Field logs generated during sample collection are provided as **Appendix D.** Summa canisters were

transported via courier to a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory, Alpha Analytical (Alpha) for EPA Method TO-15 analysis.

3.2.2 Soil Gas Analytical Results

Table 2 presents a summary of the RI soil gas data. **Figure 5** presents the soil gas sampling points and chem boxes that summarize soil gas data in exceedance of NYSDOH guidance values**.** Laboratory data packages are provided in **Appendix B** and DUSRs are provided in **Appendix C**.

Of the 32 soil gas samples collected during the RI, TCE was detected in SG-27 at a concentration of 2.35 µg/m^3, just above the NYSDOH AGV of 2 µg/m^3, but below the NYSDOH Soil Vapor Intrusion Matrix value of 6 µg/m^3. It is noted that GZA's supplemental investigation performed in April 2017 identified an exceedance of soil gas criteria in one of the five soil gas samples. TCE was detected in SG-3 at a concentration of 6.13 µg/m^3, just above the NYSDOH SVI Matrix value of 6 µg/m^3. Sample SG-3 is located west of former Building 38, approximately 560 feet north of the VVRC. Sample SG-27 is located west of former Building 4, approximately 590 feet southeast of the VVRC. Soil gas samples collected at locations surrounding SG-3 (SG-9, SG-10, SG-11, SG-12) and SG-27 (SG-28, SG-30, SG-34, SG-36) did not indicate the presence of soil gas above AGV criteria.

4.0 DESCRIPTION OF REMEDIAL ACTION RELATED TO POTENTIAL VAPOR INTRUSION

4.1 Soil Vapor Barrier and Sub-Slab Depressurization System (SSDS)

A 15 ml thick soil vapor barrier with soil vapor sampling points was installed beneath the Site Data Center and VVRC buildings during construction to eliminate potential exposure to impacted soil vapor. Soil vapor samples were collected from the sampling points to provide the

data to evaluate the quality of sub-slab soil vapor. Piping for an SSDS was installed beneath the Data Center building but was not activated. No SSDS piping was installed beneath the VVRC. Plans and Specifications for the vapor barrier, the vapor sampling points, and the SSDS are provided in **Appendix E**.

5.0 POST-REMEDIATION SOIL VAPOR INTRUSION INVESTIGATION

As specified in the approved Remedial Action Work Plan (RAWP), 15 ml thick vapor barriers and a total of 10 permanent vapor sampling points were installed in the Data Center (9 points) and the VVRC (1 point) during construction. GZA performed sampling of soil vapor beneath these two structures via the sampling points to assess the potential for vapor intrusion.

5.1 December 2019 Data Center and VVRC Soil Vapor Sampling

GZA conducted a pre-sampling survey and chemical inventory of the Data Center and VVRC buildings on December 3, 2019, prior to sampling. On December 4th and 5th, 2019, GZA collected 10 grab soil vapor samples from the Data Center (VP-1 through VP-9) and the VVRC (VP-10), one indoor air sample from the VVRC (IAA), and one ambient air background sample from outside the VVRC (OAA). As conveyed to GZA by NYSDEC, the New York State Department of Health (NYSDOH) did not require indoor air sampling in the Data Center building. **Figure 6** shows the permanent vapor point locations.

Prior to soil vapor sample collection, the adequacy of each seal at the sampling point was tested using an 8-inch diameter PVC shroud placed over the sampling point. Helium tracer gas was pumped into the shroud. The above grade end of the tubing connected to the sampling point was attached to a peristaltic pump for purging. A helium gas detector was utilized to measure helium concentrations in the above grade end of the tubing. The adequacy of the seal was verified by direct helium readings (e.g. less than 15% of total helium in shroud). Following completion of the purging and the helium tracer test, dedicated Teflon™ tubing was used to connect the soil vapor sampling point to a laboratory-supplied 6.0-liter Summa canister equipped with a flow regulator calibrated for less than 0.2 liters per minute. Each soil vapor sample was collected in a Summa canister for approximately two hours. Field logs generated during sample collection are provided as **Appendix D**.

To assess outdoor ("ambient air") and the indoor air quality at the VVRC, additional samples were collected. The ambient air sample was collected outside the VVRC building and the indoor air sample was collected next to VP-10 at an open location within the room. The ambient and

indoor air samples were collected using a laboratory-supplied 6.0-liter Summa canister equipped with a flow regulator calibrated for approximately eight hours.

Summa canisters were transported via courier to Alpha and analyzed using EPA Method TO-15.

5.1.1 Results

The sub-slab sample results and indoor air/ambient air sample results are summarized in **Tables 3 and 4**, respectively. The laboratory data packages are provided in **Appendix B** and DUSRs are provided in **Appendix C**. The soil vapor sampling log is provided in **Appendix D.** The pre-survey questionnaire and chemical survey results are provided in **Appendix F**.

The Data Center sub-slab sample results did not exceed the NYSDOH AGV or trigger mitigation action per the NYSDOH decision matrices.

TCE was detected at 41.6 µg /m3, 67.2 µg /m3 and 0.21 µg /m3 in VVRC sub-slab soil gas (VP-10), indoor air (IAA) and ambient air (OAA), respectively. These concentrations exceed the NYSDOH Decision Matrix mitigation level for sub-slab soil vapor (6 µg /m3) and indoor air (0.2 µg /m3) and the NYSDOH AGV (2 µg /m3).

No other TO-15 compounds were detected in the VVRC samples above applicable standards except for carbon tetrachloride. Carbon tetrachloride was detected at a concentration of 0.484 µg/m3 in the indoor air sample and 0.497 µg /m3 in the ambient air sample and is, therefore, considered to be background and not a representative of indoor air conditions.

Building construction activities were suspected to have contributed to the elevated levels of TCE in the indoor air and VP-10 samples in the VVRC. The indoor air concentration measured as higher than the sub-slab vapor sample. Indoor painting at the VVRC had been completed a few days prior to the sampling which involved the use of oil-based paint and latex paint. In addition, adhesives and caulks had been used in the VVRC prior to sampling (see **Appendix F**). Odors were identified by the sampler during sample collection and the door to the sampling area was closed during sampling. VP-10 and the indoor air at the VVRC were resampled once construction activities were complete; after ventilating the construction area; and after returning to normal ventilation conditions to confirm whether the initial round of vapor intrusion sampling was representative of actual conditions.

5.2 Late December 2019 and January-February 2020 VVRC Soil Vapor Sampling

Following the December 2019 report, the area surrounding VP-10 in the VVRC was re-surveyed to evaluate the potential for cross-contamination and to develop a ventilation strategy.

GZA performed a detailed survey of construction activities at the Site. GZA observed oil-based paints for metal surfaces, paint thinners, adhesives and surface preparation cleaners, each of which contained volatile organic compounds (VOCs). Interviews with Site personal indicated that the room in which VP-10 was located had been used for storing painting supplies and adhesives, and for cleaning brushes and equipment. In addition, laminates had recently been glued to countertops and walls. Based on this information, GZA recommended ventilating the room where VP-10 was located and purging VP-10 prior to resampling. Prior to ventilation, painting supplies were moved from this room and placed away from the sampling area to the distal corner of the vehicle bay in the VVRC.

In order to evaluate the effectiveness of the ventilation prior to a second round of VI sampling, GZA collected two indoor air samples (IAA 1 and IAA 2) from the VVRC on December 26, 2019; one from the room containing VP-10 and the second from another room within this building (see **Figure 7**). Sampling was performed after ventilation was ceased for a minimum of 24 hours. The ambient and indoor air samples were collected using a laboratory-supplied 6.0-liter Summa canister equipped with a flow regulator calibrated for approximately eight hours. Summa canisters were transported via courier to Alpha and analyzed using EPA Method TO-15. As summarized in **Table 6**, IAA 1 and IAA 2 contained TCE at concentrations of 38.9 µg /m3 and 32.8 µg /m3, respectively.

Following the December 26th sampling event, ventilation was again initiated in the VVRC building to further reduce TCE concentrations resulting from the storage of construction-related materials inside this room. On January 13, 2020, after a minimum of 24 hours had elapsed following cessation of ventilation, another indoor air sample (VISITORS BLDG-IAA-01) was collected in the VVRC near VP-10 to re-assess the indoor air conditions following the second round of ventilation. The sample was collected using the same methods outlined above. This sample contained TCE at a concentration of 18.8 µg /m3

On January 17, 2020, leak testing was performed on VP-10 to evaluate the seal on this vapor sampling point. VP-10 failed the leak test. The vapor point was resealed with hydraulic cement. On January 27, 2020, one soil vapor sample was collected from VP-10 (VISITORS BLDG-VP-10), one indoor air sample was collected from the VVRC (Visitor Bldg-IAA-01), and one ambient air background sample was collected from outside the VVRC (Visitor Bldg-OAA-01). The indoor air and ambient air samples were collected as outlined above. The sample from VP-10 was collected using the following method:

Prior to soil vapor sample collection, the adequacy of the seal at the sampling point was tested using an 8-inch diameter PVC shroud placed over the sampling point. Helium tracer gas was

pumped into the shroud. The above grade end of the tubing connected to the sampling point was attached to a peristaltic pump for purging. A helium gas detector was utilized to measure helium concentrations in the above grade end of the tubing. The adequacy of the seal was verified by direct helium readings (e.g. less than 15% of total helium in the shroud). Following completion of the purging and the helium tracer test, dedicated Teflon™ tubing was used to connect the soil vapor sampling point to a laboratory-supplied 6.0-liter Summa canister equipped with a flow regulator calibrated for less than 0.2 liters per minute. The soil vapor sample was collected in a Summa canister for approximately two hours. Summa canisters were transported via courier to Alpha and analyzed using EPA Method TO-15.

Elevated TCE concentrations were still present in the indoor air sample and in the sample collected from VP-10 on January 27, 2020, at concentrations of 17.8 µg /m3 and 14.6 µg/m3, respectively (see **Tables 5 and 6**). Based on the similar concentrations in both the indoor air and the sub-slab vapor it appears that there was cross contamination either through a poor seal in the vapor point or through a floor drain present in the room. As a result, GZA decided to abandon the VP-10 sampling location and move the testing location to another area of the VVRC where floor drains were not present.

On February 5, 2020, GZA conducted another VI sampling event. Samples collected during this event included one sub-slab soil vapor sample from a new temporary sub-slab vapor point (VP-10A), one indoor air sample from the VVRC (VB-IAA), and one ambient air background sample from outside the VVRC (VB-OAA). **Figure 7** shows sample locations.

The vapor monitoring pin for temporary vapor point VP-10A was installed in the access way to the loading dock. It was constructed by coring a 5/8-inch diameter hole through the 8-inch thick concrete floor slab. A 3-inch long Vapor Monitoring Pin® was installed through the concrete slab and the annular space around the vapor pin was sealed with silicone. The Vapor Monitoring Pin® is self-sealing and is equipped with a capped port flush with the floor to obtain an air-tight seal. Helium integrity testing was performed on the Vapor Monitoring Pin® following installation to confirm air-tight seals around the slab penetration. Prior to soil vapor sample collection, the adequacy of the seal at the sampling point was tested using an 8-inch diameter PVC shroud placed over the sampling point. Helium tracer gas was pumped into the shroud. The above-grade end of the tubing connected to the sampling point was attached to a peristaltic pump for purging. A helium gas detector was utilized to measure helium concentrations in the above grade end of the tubing. The adequacy of the seal was verified by direct helium readings (e.g. less than 15% of total helium in shroud). Following completion of the purging and the helium tracer test, dedicated Teflon™ tubing was used to connect the soil vapor sampling point to a laboratory-supplied 6.0-liter Summa canister equipped with a flow regulator calibrated for less

than 0.2 liters per minute. Each soil vapor sample was collected in a Summa canister for approximately two hours.

The ambient air sample was collected outside the VVRC building and the indoor air sample was collected next to VP-10A at an open location within the room. These samples were collected using the methods outlined above.

The summa canister samples were transported via courier to Alpha Analytical for EPA Method TO-15 analysis.

5.2.1 Results

The sub-slab sample results and indoor air/ambient air sample results for the sampling events conducted in the VVRC are summarized in **Tables 5 and 6**, respectively. The laboratory data packages, the DUSRs, and the soil vapor sampling logs are provided in **Appendices B, C, and D**, respectively.

TCE was detected at 38.9 µg/m3 and 32.8 µg/m3 in the VVRC indoor air samples, IAA 1 and IAA 2, collected on December 26, 2019. The concentration of TCE in the indoor air had reduced by approximately half (from 67.2 µg/m3) since the December 4, 2019 sampling event. TCE was detected at 18.8 µg/m3 in the VVRC indoor air sample VISITORS BLDG-IAA-01, collected on January 13, 2020 and at 17.8 µg/m3 in indoor air sample VISITORS BLDG-IAA-02, collected on January 27, 2020. The concentration of TCE in the indoor air in January had reduced by approximately half since the December 26, 2019 sampling event. This decrease in indoor air concentrations over time and after chemical storage removal and building ventilation supports the hypothesis that initial elevated TCE concentrations were the result of chemical use and storage in the building and a poorly sealed vapor point or floor drain, and not vapor intrusion from the subsurface.

The TCE concentrations detected during the February 5, 2020 sampling event were 1.35 µg/m3 in sub-slab soil gas collected from the temporary vapor point (VP-10A), 0.57 µg/m3 in indoor air (VB-IAA) and not detected above method detection limits in ambient air (VB-OAA). The NYSDOH Decision Matrix mitigation level noted as "no further action" for TCE is less than 6 µg/m3 for sub-slab soil vapor and 0.2 µg/m3 for indoor air, and the NYSDOH AGV for TCE is 2 µg/m3. TCE was detected at concentrations below the NYSDOH Decision Matrix Mitigation level for TCE in sub-slab soil gas collected during the February 5, 2020 sampling event.

No other TO-15 compounds were detected in the VVRC samples at concentrations above applicable standards except for carbon tetrachloride and a one-time exceedance of methylene

chloride. Carbon tetrachloride was detected at concentrations ranging from 0.472 to 0.667 µg/m3 in the indoor air samples and 0.465 to 0.472 µg/m3 in the ambient air samples and is, therefore, considered to be background and not representative of indoor air conditions. Methylene chloride was detected at a concentration of 3.79 µg/m3 in indoor air sample IAA 2, collected on December 26, 2019. This concentration exceeds the NYSDOH Decision Matrix mitigation level of 3 µg/m3, however, methylene chloride was not encountered in exceeding concentrations in the sub-slab nor subsequent indoor air samples and is therefore considered to be anomalous as methylene chloride is a common lab contaminant.

In summary, building construction activities and either a poorly sealed floor drain, or vapor point are suspected to have contributed to the elevated levels of TCE in the indoor air and the sub-slab vapor samples collected in December 2019 and January 2020. Eliminating construction materials, ventilation of the VVRC and moving the vapor point to another room where less painting activities had occurred resulted in data collected in February 2020 which more accurately characterizes vapor intrusion conditions at the VVRC. Specifically, the data collected in February 2020 demonstrates that TCE concentrations in the VVRC are below action levels based on the NYSDOH Decision Matrix and, therefore, no further action per the NYSDOH Decision Matrices is required.

5.3 Summary and Conclusions

Analytical results from post-remediation soil vapor intrusion investigations indicate that the Data Center building and the VVRC building do not require any further action per the NYSDOH decision matrices and NYSDOH AGV.

TABLES

Table 1 - Supplemental Investigation
Soil Gas Analytical Data Summary
RPC – Core Area Site
Orangetown, New York

LOCATION	NYS Soil VI[1]	NYSDOH AGV[2]	Fuel Oil 2003 Upper Indoor[3]	BASE Data 90th[4]	2005 95th Percentile Indoor[5]	SG2		SG1		SG4		SG5		SG3	
SAMPLING DATE						4/4/2017		4/4/2017		4/4/2017		4/4/2017		4/4/2017	
LAB SAMPLE ID						L1710321-01		L1710321-02		L1710321-03		L1710321-04		L1710321-05	
Depth						5' bgs		5' bgs		3' bgs		3' bgs		3' bgs	
UNIT						ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
						Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Soil Vapor															
Dichlorodifluoromethane			10	16.5	-	2560		1.1		2.87		3.3	U	0.989	U
1,3-Butadiene			-	<3.0	-	10.1		9.65		6.75		11.8		0.442	U
Acetone						27.6		28.5		2.38	U	7.91	U	18.4	
Trichlorofluoromethane			12	18.1	-	697		1.17		1.41		3.75	U	1.12	U
Carbon disulfide			-	4.2	-	6.23	U	3.61		6.04		10.4		2.68	
2-Butanone			16	12	-	14.7	U	8.82		7.46		20.3		3.3	
n-Hexane			14	10.2	-	21.7		4.3		14.9		13.1		3.56	
Benzene			13	9.4	10	6.39		5.21		3.8		6.49		4.28	
Cyclohexane			6.3	-	-	6.88	U	0.74		1.85		2.3	U	0.688	U
Trichloroethene	6	2	0.5	4.2	1.36	10.7	U	1.07	U	1.07	U	3.58	U	**6.13**	
2,2,4-Trimethylpentane			5	-	-	9.34	U	0.934	U	4.34		3.12	U	4.09	
Toluene			57	43	39.8	7.54	U	3.96		14.5		8.82		32.3	
2-Hexanone			-	-	-	8.2	U	0.893		0.93		2.73	U	0.82	U
Tetrachloroethene	100	30	2.5	15.9	6.01	13.6	U	1.36	U	1.36	U	4.52	U	1.36	U
Ethylbenzene			6.4	5.7	7.62	8.69	U	0.869	U	1.72		2.9	U	4.29	
p/m-Xylene			11	22.2	22.2	17.4	U	1.89		5.91		5.78	U	17.3	
o-Xylene			7.1	7.9	7.24	8.69	U	0.977		1.92		2.9	U	6.25	
1,2,4-Trimethylbenzene			9.8	9.5		9.83	U	2.68		2.12		3.28	U	8.8	

Notes
1 - NYS Soil Vapor Instrusion Matrix
2 - NYSDOH Air Guidance Value
3 - Table C-1 2003 Upper Fence Study of Volatile Organic Chemicals in air of Fuel Oil Heated Homes for Indoor Air
4 - Table C-2 2001 USEPA BASE 90th Percentile for Indoor Air
5 - Table C-5 2005 Health Effects Institute 95th Percentile for Indoor Air
6 This value exceeds NYSDOH AGV
4 This value exceeds the indoor air background value
Qual - Laboratory data qualifier.
U - The compound was not detected at the indicated concentration.

Table 2 - Remedial Investigation Soil Gas Analytical Data Summary
RPC – Core Area Site
Orangetown, New York

LOCATION ID						SG-01		SG-02		SG-03		SG-04		SG-05		SG-06		SG-07		SG-08		SG-09		SG-10		SG-11		SG-12		SG-13		SG-13		SG-14		SG-15		SG-16		SG-17		SG-18		SG-19		SG-20	
SAMPLE ID						SG1		SG2		SG3		SG4		SG5		SG-6		SG-7		SG-8		SG-9		SG-10		SG-11		SG-12		DUP-SG-2		SG-13		SG-14		SG-15		SG-16		SG-17		SG-18		SG-19		SG-20	
SAMPLING DATE	NYS Soil VI[1]	NYSDOH AGV[2]	Fuel Oil 2003 Upper Indoor[3]	Base Data 90th[4]	2005 95th Indoor[5]	4/4/2017		4/4/2017		4/4/2017		4/4/2017		4/4/2017		9/27/2017		9/29/2017		9/28/2017		9/28/2017		9/28/2017		9/28/2017		9/28/2017		9/29/2017		9/29/2017		9/29/2017		9/29/2017		9/28/2017		9/27/2017		9/27/2017		9/27/2017		9/27/2017	
LAB SAMPLE ID						L1710321-02		L1710321-01		L1710321-05		L1710321-03		L1710321-04		L1734616-05		L1735174-01		L1734903-01		L1734903-02		L1734903-03		L1734903-04		L1734903-05		L1735174-05		L1735174-02		L1735174-03		L1735174-04		L1734903-06		L1734616-01		L1734616-07		L1734616-02		L1734616-03	
UNIT						ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
						Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds																																																
1,1,1-Trichloroethane	100	NS	2.5	20.6	NS	< 1.09	U	< 10.9	U	< 1.09	U	< 1.09	U	< 3.64	U	< 17.1	U	< 1.09	U	< 1.09	U	< 1.09	U	< 2.18	U	< 1.09	U	< 10.9	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 3.64	U	< 1.09	U	< 1.09	U	7.86		< 177	U
1,1,2,2-Tetrachloroethane	NS	NS	0.4	NS	NS	< 1.37	U	< 13.7	U	< 1.37	U	< 1.37	U	< 4.58	U	< 21.5	U	< 1.37	U	< 1.37	U	< 1.37	U	< 2.75	U	< 1.37	U	< 13.7	U	< 1.37	U	< 1.37	U	< 1.37	U	< 1.37	U	< 4.58	U	< 1.37	U	< 1.37	U	< 3.43	U	< 223	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	2.5	3.5	NS	< 1.53	U	< 15.3	U	< 1.53	U	< 1.53	U	< 5.11	U	< 24.0	U	< 1.53	U	< 1.53	U	< 1.53	U	< 3.07	U	< 1.53	U	< 15.3	U	< 1.53	U	< 1.53	U	< 1.53	U	< 1.53	U	< 5.11	U	< 1.53	U	< 1.53	U	< 3.83	U	< 249	U
1,1,2-Trichloroethane	NS	NS	0.4	1.5	NS	< 1.09	U	< 10.9	U	< 1.09	U	< 1.09	U	< 3.64	U	< 17.1	U	< 1.09	U	< 1.09	U	< 1.09	U	< 2.18	U	< 1.09	U	< 10.9	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 3.64	U	< 1.09	U	< 1.09	U	< 2.73	U	< 177	U
1,1-Dichloroethane	NS	NS	0.4	0.7	NS	< 0.809	U	< 8.09	U	< 0.809	U	< 0.809	U	< 2.70	U	< 12.7	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.62	U	< 0.809	U	< 8.09	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 2.7	U	< 0.809	U	< 0.809	U	< 2.02	U	< 132	U
1,1-Dichloroethene	6	NS	0.4	1.4	NS	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 2.64	U	< 12.4	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 2.64	U	< 0.793	U	< 0.793	U	< 1.98	U	< 129	U
1,2,4-Trichlorobenzene	NS	NS	0.5	6.8	NS	< 1.48	U	< 14.8	U	< 1.48	U	< 1.48	U	< 4.95	U	< 23.2	U	< 1.48	U	< 1.48	U	< 1.48	U	< 2.97	U	< 1.48	U	< 14.8	U	< 1.48	U	< 1.48	U	< 1.48	U	< 1.48	U	< 4.95	U	< 1.48	U	< 1.48	U	< 3.71	U	< 241	U
1,2,4-Trimethylbenzene	NS	NS	9.8	9.5	NS	2.68		< 9.83	U	8.80		2.12		< 3.28	U	< 15.4	U	< 0.983	U	1.59		1.11		2.89		2.42		< 9.83	U	< 0.983	U	3.55		1.15		2.78		4.18		3.22		2.29		3.94		< 160	U
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.4	1.5	NS	< 1.54	U	< 15.4	U	< 1.54	U	< 1.54	U	< 5.13	U	< 24.1	U	< 1.54	U	< 1.54	U	< 1.54	U	< 3.07	U	< 1.54	U	< 15.4	U	< 1.54	U	< 1.54	U	< 1.54	U	< 1.54	U	< 5.13	U	< 1.54	U	< 1.54	U	< 3.84	U	< 250	U
1,2-Dichlorobenzene	NS	NS	0.5	1.2	NS	< 1.20	U	< 12.0	U	< 1.20	U	< 1.20	U	< 4.01	U	< 18.8	U	< 1.2	U	< 1.2	U	< 1.2	U	< 2.4	U	< 1.2	U	< 12	U	< 1.2	U	< 1.2	U	< 1.2	U	< 1.2	U	< 4.01	U	< 1.20	U	< 1.20	U	< 3.01	U	< 195	U
1,2-Dichloroethane	NS	NS	0.4	0.9	NS	< 0.809	U	< 8.09	U	< 0.809	U	< 0.809	U	< 2.70	U	< 12.7	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.62	U	< 0.809	U	< 8.09	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 2.7	U	< 0.809	U	< 0.809	U	< 2.02	U	< 132	U
1,2-Dichloropropane	NS	NS	0.4	1.6	NS	< 0.924	U	< 9.24	U	< 0.924	U	< 0.924	U	< 3.08	U	< 14.5	U	< 0.924	U	< 0.924	U	< 0.924	U	< 1.85	U	< 0.924	U	< 9.24	U	< 0.924	U	< 0.924	U	< 0.924	U	< 0.924	U	< 3.08	U	< 0.924	U	< 0.924	U	< 2.31	U	< 150	U
1,2-Dichlorotetrafluoroethane	NS	NS	0.4	6.8	NS	< 1.40	U	< 14.0	U	< 1.40	U	< 1.40	U	< 4.66	U	< 21.9	U	< 1.4	U	< 1.4	U	< 1.4	U	< 2.8	U	< 1.4	U	< 14	U	< 1.4	U	< 1.4	U	< 1.4	U	< 1.4	U	< 4.66	U	< 1.40	U	< 1.40	U	< 3.49	U	< 227	U
1,3,5-Trimethylbenzene (Mesitylene)	NS	NS	3.9	3.7	NS	< 0.983	U	< 9.83	U	2.78		< 0.983	U	< 3.28	U	< 15.4	U	< 0.983	U	< 0.983	U	< 0.983	U	< 1.97	U	< 0.983	U	< 9.83	U	< 0.983	U	< 0.983	U	< 0.983	U	< 0.983	U	3.79		1.04		< 0.983	U	< 2.46	U	< 160	U
1,3-Butadiene	NS	NS	NS	3.0	NS	9.65		10.1		< 0.442	U	6.75		11.8		< 6.92	U	3.41		6.86		2.09		2.61		0.785		< 4.42	U	0.515		1.68		7.46		3.3		12		21.0		3.27		32.3		< 71.9	U
1,3-Dichlorobenzene	NS	NS	0.5	2.4	NS	< 1.20	U	< 12.0	U	< 1.20	U	< 1.20	U	< 4.01	U	< 18.8	U	< 1.2	U	< 1.2	U	< 1.2	U	< 2.4	U	< 1.2	U	< 12	U	< 1.2	U	< 1.2	U	< 1.2	U	< 1.2	U	< 4.01	U	< 1.20	U	< 1.20	U	< 3.01	U	< 195	U
1,4-Dichlorobenzene	NS	NS	1.2	5.5	344	< 1.20	U	< 12.0	U	< 1.20	U	< 1.20	U	< 4.01	U	< 18.8	U	< 1.2	U	< 1.2	U	< 1.2	U	< 2.4	U	< 1.2	U	< 12	U	< 1.2	U	< 1.2	U	< 1.2	U	< 1.2	U	< 4.01	U	< 1.20	U	< 1.20	U	< 3.01	U	< 195	U
1,4-Dioxane (P-Dioxane)	NS	NS	NS	NS	NS	< 0.721	U	< 7.21	U	< 0.721	U	< 0.721	U	< 2.40	U	< 11.3	U	< 0.721	U	< 0.721	U	< 0.721	U	< 1.44	U	< 0.721	U	< 7.21	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 2.4	U	< 0.721	U	< 0.721	U	< 1.80	U	< 117	U
2,2,4-Trimethylpentane	NS	NS	5.0	NS	NS	< 0.934	U	< 9.34	U	4.09		4.34		< 3.12	U	< 14.6	U	1.21		< 0.934	U	< 0.934	U	3.72		< 0.934	U	< 9.34	U	< 0.934	U	< 0.934	U	< 0.934	U	< 0.934	U	< 3.12	U	4.66		3.90		< 2.34	U	< 152	U
2-Hexanone	NS	NS	NS	NS	NS	0.893		< 8.20	U	< 0.820	U	0.930		< 2.73	U	< 12.8	U	< 0.82	U	1.38		< 0.82	U	< 1.64	U	< 0.82	U	< 8.2	U	< 0.82	U	< 0.82	U	< 0.82	U	1.02		< 0.82	U	< 2.73	U	< 0.820	U	< 0.820	U	< 2.05	U	< 133	U
4-Ethyltoluene	NS	NS	NS	3.6	NS	< 0.983	U	< 9.83	U	2.14		< 0.983	U	< 3.28	U	< 15.4	U	< 0.983	U	< 0.983	U	< 0.983	U	< 1.97	U	< 0.983	U	< 9.83	U	< 0.983	U	< 0.983	U	< 0.983	U	< 0.983	U	< 3.28	U	1.90		< 0.983	U	< 2.46	U	< 160	U
Acetone	NS	NS	115	98.9	45.8	28.5		27.6		18.4		< 2.38	U	< 7.91	U	185		9.17		117		62.7		82.2		98.3		< 23.8	U	6.68		7.41		64.6		134		1600		< 2.38	U	356		81.5		< 385	U
Allyl Chloride (3-Chloropropene)	NS	NS	NS	NS	NS	< 0.626	U	< 6.26	U	< 0.626	U	< 0.626	U	< 2.09	U	< 9.80	U	< 0.626	U	< 0.626	U	< 0.626	U	< 1.25	U	< 0.626	U	< 6.26	U	< 0.626	U	< 0.626	U	< 0.626	U	< 0.626	U	< 2.09	U	< 0.626	U	< 0.626	U	< 1.57	U	< 102	U
Benzene	NS	NS	13	9.4	10	5.21		6.39		4.28		3.80		6.49		< 10.0	U	2.97		14.2		2.99		4.95		1.87		< 6.39	U	< 0.639	U	1.01		5.49		2.65		69		16.0		3.26		33.2		703	
Benzyl Chloride	NS	NS	NS	6.8	NS	< 1.04	U	< 10.4	U	< 1.04	U	< 1.04	U	< 3.45	U	< 16.2	U	< 1.04	U	< 1.04	U	< 1.04	U	< 2.07	U	< 1.04	U	< 10.4	U	< 1.04	U	< 1.04	U	< 1.04	U	< 1.04	U	< 3.45	U	< 1.04	U	< 1.04	U	< 2.59	U	< 168	U
Bromodichloromethane	NS	NS	NS	NS	NS	< 1.34	U	< 13.4	U	< 1.34	U	< 1.34	U	< 4.47	U	< 21.0	U	< 1.34	U	< 1.34	U	< 1.34	U	< 2.68	U	< 1.34	U	< 13.4	U	< 1.34	U	< 1.34	U	< 1.34	U	< 1.34	U	< 4.47	U	< 1.34	U	< 1.34	U	< 3.35	U	< 218	U
Bromoform	NS	NS	NS	NS	NS	< 2.07	U	< 20.7	U	< 2.07	U	< 2.07	U	< 6.90	U	< 32.4	U	< 2.07	U	< 2.07	U	< 2.07	U	< 4.14	U	< 2.07	U	< 20.7	U	< 2.07	U	< 2.07	U	< 2.07	U	< 2.07	U	< 6.9	U	< 2.07	U	< 2.07	U	< 5.17	U	< 336	U
Bromomethane	NS	NS	0.5	1.7	NS	< 0.777	U	< 7.77	U	< 0.777	U	< 0.777	U	< 2.59	U	< 12.2	U	< 0.777	U	< 0.777	U	< 0.777	U	< 1.55	U	< 0.777	U	< 7.77	U	< 0.777	U	< 0.777	U	< 0.777	U	< 0.777	U	< 2.59	U	< 0.777	U	< 0.777	U	< 1.94	U	< 126	U
Carbon Disulfide	NS	NS	NS	4.2	NS	3.61		< 6.23	U	2.68		6.04		10.4		< 9.75	U	5.39		15.4		4.27		3.58		11.9		< 6.23	U	< 0.623	U	1.34		41.1		3		10		3.95		19.9		14.5		< 101	U
Carbon Tetrachloride	6	NS	1.3	1.3	1.1	< 1.26	U	< 12.6	U	< 1.26	U	< 1.26	U	< 4.20	U	< 19.7	U	< 1.26	U	< 1.26	U	< 1.26	U	< 2.52	U	< 1.26	U	< 12.6	U	< 1.26	U	< 1.26	U	< 1.26	U	< 1.26	U	< 4.2	U	< 1.26	U	< 1.26	U	< 3.15	U	< 204	U
Chlorobenzene	NS	NS	0.4	0.9	NS	< 0.921	U	< 9.21	U	< 0.921	U	< 0.921	U	< 3.07	U	< 14.4	U	< 0.921	U	< 0.921	U	< 0.921	U	< 1.84	U	< 0.921	U	< 9.21	U	< 0.921	U	< 0.921	U	< 0.921	U	< 0.921	U	< 3.07	U	< 0.921	U	< 0.921	U	< 2.30	U	< 150	U
Chloroethane	NS	NS	0.4	1.1	NS	< 0.528	U	< 5.28	U	< 0.528	U	< 0.528	U	< 1.76	U	< 8.26	U	< 0.528	U	< 0.528	U	< 0.528	U	< 1.06	U	< 0.528	U	< 5.28	U	< 0.528	U	< 0.528	U	< 0.528	U	< 0.528	U	< 1.76	U	< 0.528	U	< 0.528	U	< 1.32	U	< 85.8	U
Chloroform	NS	NS	1.2	1.1	6.34	< 0.977	U	< 9.77	U	< 0.977	U	< 0.977	U	< 3.26	U	20.4		1.25		< 0.977	U	< 0.977	U	< 1.95	U	< 0.977	U	< 9.77	U	< 0.977	U	< 0.977	U	< 0.977	U	< 0.977	U	4		2.16		< 0.977	U	4.15		< 159	U
Chloromethane	NS	NS	4.2	3.7	NS	0.465		< 4.13	U	< 0.413	U	1.65		1.58		< 6.46	U	< 0.413	U	0.902		< 0.413	U	< 0.826	U	< 0.413	U	< 4.13	U	0.913		0.843		< 0.413	U	< 0.413	U	< 1.38	U	0.684		< 0.413	U	1.26		< 67.1	U
Cis-1,2-Dichloroethylene	6	NS	0.4	1.9	NS	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 2.64	U	< 12.4	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 2.64	U	< 0.793	U	< 0.793	U	< 1.98	U	< 129	U
Cis-1,3-Dichloropropene	NS	NS	0.4	2.3	NS	< 0.908	U	< 9.08	U	< 0.908	U	< 0.908	U	< 3.03	U	< 14.2	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.82	U	< 0.908	U	< 9.08	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 3.03	U	< 0.908	U	< 0.908	U	< 2.27	U	< 148	U
Cyclohexane	NS	NS	6.3	NS	NS	0.740		< 6.88	U	< 0.688	U	1.85		< 2.30	U	< 10.8	U	< 0.688	U	0.826		1.07		2.46		1.41		10.1		< 0.688	U	< 0.688	U	2.03		< 0.688	U	< 0.688	U	6.75		9.81		3.92		9.81		< 112	U
Dibromochloromethane	NS	NS	NS	NS	NS	< 1.70	U	< 17.0	U	< 1.70	U	< 1.70	U	< 5.68	U	< 26.7	U	< 1.7	U	< 1.7	U	< 1.7	U	< 3.41	U	< 1.7	U	< 17	U	< 1.7	U	< 1.7	U	< 1.7	U	< 1.7	U	< 1.7	U	< 5.68	U	< 1.70	U	< 1.70	U	< 4.26	U	< 277	U
Dichlorodifluoromethane	NS	NS	10	16.5	NS	1.10		2560		< 0.989	U	2.87		< 3.30	U	< 15.5	U	2.24		1.89		2.59		2.81		3.17		< 9.89	U	2.76		2.68		2.35		2.35		< 3.3	U	1.83		2.39		3.31		< 161	U
Ethanol	NS	NS	1300	210.0	NS	< 9.42	U	< 94.2	U	< 9.42	U	< 9.42	U	< 31.5	U	< 148	U	< 9.42	U	12.2		12.5		< 18.8	U	11.3		< 94.2	U	< 9.42	U	< 9.42	U	< 9.42	U	< 9.42	U	< 31.5	U	< 9.42	U	< 9.42	U	< 23.6	U	< 1530	U
Ethyl Acetate	NS	NS	NS	5.4	NS	< 1.80	U	< 18.0	U	< 1.80	U	< 1.80	U	< 6.02	U	< 28.3	U	< 1.8	U	< 1.8	U	< 1.8	U	< 3.6	U	< 1.8	U	< 18	U	< 1.8	U	< 1.8	U	< 1.8	U	< 1.8	U	< 6.02	U	< 1.80	U	< 1.80	U	< 4.50	U	< 293	U
Ethylbenzene	NS	NS	6.4	5.7	7.62	< 0.869	U	< 8.69	U	4.29		1.72		< 2.90	U	< 13.6	U	< 0.869	U	5.6		< 0.869	U	2.05		0.899		< 8.69	U	< 0.869	U	1.01		1.52		< 0.869	U	19.9		3.01		2.35		7.73		232	
Hexachlorobutadiene	NS	NS	0.5	6.8	NS	< 2.13	U	< 21.3	U	< 2.13	U	< 2.13	U	< 7.11	U	< 33.4	U	< 2.13	U	< 2.13	U	< 2.13	U	< 4.27	U	< 2.13	U	< 21.3	U	< 2.13	U	< 2.13	U	< 2.13	U	< 2.13	U	< 7.11	U	< 2.13	U	< 2.13	U	< 5.33	U	< 347	U
Isopropanol	NS	NS	NS	250.0	NS	< 1.23	U	< 12.3	U	< 1.23	U	< 1.23	U	< 4.10	U	< 19.3	U	< 1.23	U	2.48		1.44		2.65		2.83		< 12.3	U	< 1.23	U	< 1.23	U	2.3		6.15		40.8		< 1.23	U	16.7		< 3.07	U	< 200	U
m,p-Xylene	NS	NS	11	22.2	22.2	1.89		< 17.4	U	17.3		5.91		< 5.78	U	< 27.2	U	1.85		20.1		1.83		5.6		3.02		< 17.4	U	< 1.74	U	3.44		3.68		2.19		16.3		8.08		5.82		16.2		< 282	U
Methyl Ethyl Ketone (2-Butanone)	NS	NS	16	12.0	NS	8.82		< 14.7	U	3.30		7.46		20.3		< 23.1	U	< 1.47	U	22.1		6.28		8.46		7.93		< 14.7	U	< 1.47	U	< 1.47	U	11.5		11.6		86.7		1.74		11.6		15.9		< 239	U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	1.9	6.0	NS	< 2.05	U	< 20.5	U	< 2.05	U	< 2.05	U	< 6.84	U	< 32.1	U	< 2.05	U	< 2.05	U	< 2.05	U	< 4.1	U	< 2.05	U	< 20.5	U	< 2.05	U	< 2.05	U	< 2.05	U	< 2.05	U	< 6.84	U	< 2.05	U	< 2.05	U	< 5.12	U	< 333	U
Methylene Chloride	100	60	16	10.0	7.5	< 1.74	U	< 17.4	U	< 1.74	U	< 1.74	U	< 5.80	U	< 27.2	U	< 1.74	U	< 1.74	U	< 1.74	U	< 3.47	U	< 1.74	U	< 17.4	U	< 1.74	U	< 1.74	U	< 1.74	U	< 1.74	U	< 5.8	U	< 1.74	U	< 1.74	U	< 4.34	U	< 282	U
N-Heptane	NS	NS	18	NS	NS	2.40		8.61		4.18		10.5		9.06		13.7		1.73		5.78		2.06		3.5		1.12		30.9		< 0.82	U	0.902		3.29		1.36		7.54		12.5		4.55		10.7		18700	
N-Hexane	NS	NS	14	10.2	NS	4.30		21.7		3.56		14.9		13.1		23.2		3.05		7.79		2.83		4.37		1.98		19.9		< 0.705	U	1.32		4.86		2.72		14.9		15.1		6.80		14.6		43000	
O-Xylene (1,2-Dimethylbenzene)	NS	NS	7.1	7.9	7.24	0.977		< 8.69	U	6.25		1.92		< 2.90	U	< 13.6	U	0.886		7.04		< 0.869	U	2.87		1.52		54.3		< 0.869	U	1.59		1.79		1.12		7.04		6.12		2.51		10.6		< 141	U
Styrene	NS	NS	1.4	1.9	5.13	< 0.852	U	< 8.52	U	< 0.852	U	< 0.852	U	< 2.84	U	< 13.3	U	< 0.852	U	< 0.852	U	< 0.852	U	< 1.7	U	< 0.852	U	< 8.52	U	< 0.852	U	< 0.852	U	< 0.852	U	< 0.852	U	< 2.84	U	< 0.852	U	< 0.852	U	< 2.13	U	< 138	U
Tert-Butyl Alcohol	NS	NS	NS	NS	NS	< 1.52	U	< 15.2	U	< 1.52	U	< 1.52	U	< 5.06	U	< 23.8	U	< 1.52	U	< 1.52	U	< 1.52	U	< 3.03	U	< 1.52	U	< 15.2	U	< 1.52	U	< 1.52	U	< 1.52	U	< 1.52	U	< 5.06	U	< 1.52	U	< 1.52	U	< 3.79	U	< 246	U
Tert-Butyl Methyl Ether	NS	NS	14	11.5	36	< 0.721	U	< 7.21	U	< 0.721	U	< 0.721	U	< 2.40	U	< 11.3	U	< 0.721	U	< 0.721	U	< 0.721	U	< 1.44	U	< 0.721	U	< 7.21	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 2.4	U	< 0.721	U	< 0.721	U	< 1.80	U	< 117	U
Tetrachloroethylene (PCE)	100	30	2.5	15.9	6.01	< 1.36	U	< 13.6	U	< 1.36	U	< 1.36	U	< 4.52	U	< 21.2	U	< 1.36	U	< 1.36	U	< 1.36	U	3.02		< 1.36	U	< 13.6	U	< 1.36	U	< 1.36	U	< 1.36	U	< 1.36	U	< 4.52	U	< 1.36	U	1.42		< 3.39	U	< 220	U
Tetrahydrofuran	NS	NS	0.8	NS	NS	< 1.47	U	< 14.7	U	< 1.47	U	< 1.47	U	< 4.93	U	< 23.1	U	< 1.47	U	< 1.47	U	< 1.47	U	< 2.95	U	< 1.47	U	< 14.7	U	< 1.47	U	< 1.47	U	< 1.47	U	< 1.47	U	< 4.93	U	< 1.47	U	< 1.47	U	< 3.69	U	< 239	U
Toluene	NS	NS	57	43.0	39.8	3.96		< 7.54	U	32.3		14.5		8.82		16.9		4.48		10.9		3.14		10.6		2.51		< 7.54	U	< 0.754	U	1.8		5.92		2.8		39.2		13.1		7.61		41.8		482	
Trans-1,2-Dichloroethene	NS	NS	NS	NS	NS	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 2.64	U	< 12.4	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 7.93	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 2.64	U	< 0.793	U	< 0.793	U	< 1.98	U	< 129	U
Trans-1,3-Dichloropropene	NS	NS	NS	1.3	NS	< 0.908	U	< 9.08	U	< 0.908	U	< 0.908	U	< 3.03	U	< 14.2	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.82	U	< 0.908	U	< 9.08	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 3.03	U	< 0.908	U	< 0.908	U	< 2.27	U	< 148	U
Trichloroethylene (TCE)	6	2	0.5	4.2	1.36	< 1.07	U	< 10.7	U	**6.13**		< 1.07	U	< 3.58	U	< 16.8	U	< 1.07	U	< 1.07	U	< 1.07	U	< 2.15	U	< 1.07	U	< 10.7	U	< 1.07	U	< 1.07	U	< 1.07	U	< 1.07	U	< 3.58	U	< 1.07	U	< 1.07	U	< 2.69	U	< 175	U
Trichlorofluoromethane	NS	NS	12	18.1	NS	1.17		697		< 1.12	U	1.41		< 3.75	U	< 17.6	U	1.57		1.21		1.42		< 2.25	U	< 1.12	U	< 11.2	U	1.21		1.14		< 1.12	U	1.28		< 3.75	U	1.35		< 1.12	U	< 2.81	U	< 183	U
Vinyl Bromide	NS	NS	NS	NS	NS	< 0.874	U	< 8.74	U	< 0.874	U	< 0.874	U	< 2.92	U	< 13.7	U	< 0.874	U	< 0.874	U	< 0.874	U	< 1.75	U	< 0.874	U	< 8.74	U	< 0.874	U	< 0.874	U	< 0.874	U	< 0.874	U	< 2.92	U	< 0.874	U	< 0.874	U	< 2.19	U	< 142	U
Vinyl Chloride	6	NS	0.4	1.9	NS	< 0.511	U	< 5.11	U	< 0.511	U	< 0.511	U	< 1.71	U	< 8.00	U	< 0.511	U	< 0.511	U	< 0.511	U	< 1.02	U	< 0.511	U	< 5.11	U	< 0.511	U	< 0.511	U	< 0.511	U	< 0.511	U	< 1.71	U	< 0.511	U	< 0.511	U	< 1.28	U	< 83.1	U

Notes:

1 - NYS Soil Vapor Instrusion Matrix.
2 - NYSDOH Air Guidance Value.
3 - Table C-1 2003 Upper Fence Study of Volatile Organic Chemicals in air of Fuel Oil Heated Homes for Indoor Air.
4 - Table C-2 2001 USEPA BASE 90th Percentile for Indoor Air.
5 - Table C-5 2005 Health Effects Institute 95th Percentile for Indoor Air.

6.13 This value exceeds NYSDOH AGV.
ug/m3 Micrograms per cubic meter.
Qual - Laboratory data qualifier.
U - The compound was not detected at the indicated concentration.
J - Data indicates the presence of a compound that meets the identification criteria, The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
NS - No Standard.

Table 2 - Remedial Investigation Soil Gas Analytical Data Summary
RPC – Core Area Site
Orangetown, New York

LOCATION ID						SG-21		SG-22		SG-23		SG-24		SG-25		SG-26		SG-27		SG-28		SG-29		SG-30		SG-30		SG-31		SG-32		SG-33		SG-34		SG-35		SG-36		SG-37	
SAMPLE ID						SG-21		SG-22		SG-23		SG-24		SG-25		SG-26		SG-27		SG-28		SG-29		DUP-SG-1		SG-30		SG-31		SG-32		SG-33		SG-34		SG-35		SG-36		SG-37	
SAMPLING DATE	NYS Soil VI[1]	NYSDOH AGV[2]	Fuel Oil 2003 Upper Indoor[3]	Base Data 90th[4]	2005 95th Indoor[5]	9/27/2017		9/27/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/26/2017		9/25/2017		9/25/2017		9/25/2017		9/25/2017		9/25/2017		9/25/2017		9/25/2017	
LAB SAMPLE ID						L1734616-04		L1734616-06		L1734430-01		L1734430-02		L1734430-03		L1734430-04		L1734430-05		L1734430-06		L1734430-07		L1734430-09		L1734430-08		L1734219-01		L1734219-02		L1734219-03		L1734219-04		L1734219-05		L1734219-06		L1734219-07	
UNIT						ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
						Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organic Compounds																																								
1,1,1-Trichloroethane	100	NS	2.5	20.6	NS	< 1.09	U	< 17.1	U	2.42		< 1.09	U	4.00		< 1.09	U	< 2.18	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.36	U	< 1.09	U	< 1.09	U	< 2.18	U	< 3.64	U
1,1,2,2-Tetrachloroethane	NS	NS	0.4	NS	NS	< 1.37	U	< 21.5	U	< 2.75	U	< 1.37	U	< 1.37	U	< 1.37	U	< 2.75	U	< 1.37	U	< 1.37	U	< 1.37	U	< 1.37	U	< 1.37	U	< 1.37	U	< 1.72	U	< 1.37	U	< 1.37	U	< 2.75	U	< 4.58	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	2.5	3.5	NS	< 1.53	U	< 24.0	U	< 3.07	U	< 1.53	U	< 1.53	U	< 1.53	U	< 3.07	U	< 1.53	U	< 1.53	U	< 1.53	U	< 1.53	U	< 1.53	U	< 1.53	U	< 1.92	U	< 1.53	U	< 1.53	U	< 3.07	U	< 5.11	U
1,1,2-Trichloroethane	NS	NS	0.4	1.5	NS	< 1.09	U	< 17.1	U	< 2.18	U	< 1.09	U	< 1.09	U	< 1.09	U	< 2.18	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.09	U	< 1.36	U	< 1.09	U	< 1.09	U	< 2.18	U	< 3.64	U
1,1-Dichloroethane	NS	NS	0.4	0.7	NS	< 0.809	U	< 12.7	U	< 1.62	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.62	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.01	U	< 0.809	U	< 0.809	U	< 1.62	U	< 2.7	U
1,1-Dichloroethene	6	NS	0.4	1.4	NS	< 0.793	U	< 12.4	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.991	U	< 0.793	U	< 0.793	U	< 1.59	U	< 2.64	U
1,2,4-Trichlorobenzene	NS	NS	0.5	6.8	NS	< 1.48	U	< 23.2	U	< 2.97	U	< 1.48	U	< 1.48	U	< 1.48	U	< 2.97	U	< 1.48	U	< 1.48	U	< 1.48	U	< 1.48	U	< 1.48	U	< 1.48	U	< 1.86	U	< 1.48	U	< 1.48	U	< 2.97	U	< 4.95	U
1,2,4-Trimethylbenzene	NS	NS	9.8	9.5	NS	< 0.983	U	< 15.4	U	3.20		< 0.983	U	2.98		9.64		13.4		12.8		2.71		3.67		2.56		77.2		29.6		12.9		15.2		81.1		16.7		13	
1,2-Dibromoethane (Ethylene Dibromide)	NS	NS	0.4	1.5	NS	< 1.54	U	< 24.1	U	< 3.07	U	< 1.54	U	< 1.54	U	< 1.54	U	< 3.07	U	< 1.54	U	< 1.54	U	< 1.54	U	< 1.54	U	< 1.54	U	< 1.54	U	< 1.92	U	< 1.54	U	< 1.54	U	< 3.07	U	< 5.13	U
1,2-Dichlorobenzene	NS	NS	0.5	1.2	NS	< 1.20	U	< 18.8	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 1.20	U	< 1.2	U	< 1.2	U	< 1.5	U	< 1.2	U	< 1.2	U	< 2.4	U	< 4.01	U
1,2-Dichloroethane	NS	NS	0.4	0.9	NS	< 0.809	U	< 12.7	U	< 1.62	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.62	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 0.809	U	< 1.01	U	< 0.809	U	< 0.809	U	< 1.62	U	< 2.7	U
1,2-Dichloropropane	NS	NS	0.4	1.6	NS	< 0.924	U	< 14.5	U	< 1.85	U	< 0.924	U	< 0.924	U	< 0.924	U	< 1.85	U	< 0.924	U	< 0.924	U	< 0.924	U	< 0.924	U	< 0.924	U	< 0.924	U	< 1.16	U	< 0.924	U	< 0.924	U	< 1.85	U	< 3.08	U
1,2-Dichlorotetrafluoroethane	NS	NS	0.4	6.8	NS	< 1.40	U	< 21.9	U	< 2.80	U	< 1.40	U	< 1.40	U	< 1.40	U	< 2.80	U	< 1.40	U	< 1.40	U	< 1.40	U	< 1.40	U	< 1.4	U	< 1.4	U	< 1.75	U	< 1.4	U	< 1.4	U	< 2.8	U	< 4.66	U
1,3,5-Trimethylbenzene (Mesitylene)	NS	NS	3.9	3.7	NS	< 0.983	U	< 15.4	U	< 1.97	U	< 0.983	U	1.25		2.48		3.64		3.35		< 0.983	U	< 0.983	U	< 0.983	U	15.8		6.39		3.83		4.06		16.9		4.72		3.85	
1,3-Butadiene	NS	NS	NS	3.0	NS	2.50		< 6.92	U	5.07		11.0		30.8		6.13		10.4		8.92		9.71		< 0.442	U	1.22		4.56		4.11		3.47		6.99		15.4		1.23		29.6	
1,3-Dichlorobenzene	NS	NS	0.5	2.4	NS	< 1.20	U	< 18.8	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 1.20	U	3.08		1.88		2.77		19.1		1.49		11.4		< 4.01	U
1,4-Dichlorobenzene	NS	NS	1.2	5.5	344	< 1.20	U	< 18.8	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 2.40	U	< 1.20	U	< 1.20	U	< 1.20	U	< 1.20	U	< 1.2	U	< 1.2	U	< 1.5	U	< 1.2	U	< 1.2	U	< 2.4	U	< 4.01	U
1,4-Dioxane (P-Dioxane)	NS	NS	NS	NS	NS	< 0.721	U	< 11.3	U	< 1.44	U	< 0.721	U	< 0.721	U	< 0.721	U	< 1.44	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.901	U	< 0.721	U	< 0.721	U	< 1.44	U	< 2.4	U
2,2,4-Trimethylpentane	NS	NS	5.0	NS	NS	1.23		< 14.6	U	< 1.87	U	2.72		3.39		1.99		< 1.87	U	1.23		7.10		1.39		< 0.934	U	6.87		4.9		< 1.17	U	3.53		9.2		3.12		< 3.12	U
2-Hexanone	NS	NS	NS	NS	NS	< 0.820	U	< 12.8	U	< 1.64	U	< 0.820	U	0.836		42.6		48.8		50.8		< 0.820	U	< 0.820	U	< 0.820	U	3.7		3.91		66.8		36		< 0.82	U	65.6		95.5	
4-Ethyltoluene	NS	NS	NS	3.6	NS	< 0.983	U	< 15.4	U	< 1.97	U	< 0.983	U	1.10		< 0.983	U	< 1.97	U	2.73		< 0.983	U	< 0.983	U	< 0.983	U	9.39		3.53		2.24		3.19		10.8		3.24		< 3.28	U
Acetone	NS	NS	115	98.9	45.8	193		< 37.3	U	55.6		219		836		49.9		89.8		67.9		266		15.3		20.5		106		94.5		204		77.4		217		480		392	
Allyl Chloride (3-Chloropropene)	NS	NS	NS	NS	NS	< 0.626	U	< 9.80	U	< 1.25	U	< 0.626	U	< 0.626	U	< 0.626	U	< 1.25	U	< 0.626	U	< 0.626	U	< 0.626	U	< 0.626	U	< 0.626	U	< 0.626	U	< 0.783	U	< 0.626	U	< 0.626	U	< 1.25	U	< 2.09	U
Benzene	NS	NS	13	9.4	10	2.90		< 10.0	U	4.73		16.8		35.1		3.64		18.0		9.52		11.1		0.719		1.62		9.94		5.97		6.58		10.6		14.3		3.58		14.4	
Benzyl Chloride	NS	NS	NS	6.8	NS	< 1.04	U	< 16.2	U	< 2.07	U	< 1.04	U	< 1.04	U	< 1.04	U	< 2.07	U	< 1.04	U	< 1.04	U	< 1.04	U	< 1.04	U	< 1.04	U	< 1.04	U	< 1.29	U	< 1.04	U	< 1.04	U	< 2.07	U	< 3.45	U
Bromodichloromethane	NS	NS	NS	NS	NS	< 1.34	U	< 21.0	U	< 2.68	U	< 1.34	U	< 1.34	U	< 1.34	U	< 2.68	U	< 1.34	U	< 1.34	U	< 1.34	U	< 1.34	U	< 1.34	U	< 1.34	U	< 1.67	U	2.26		< 1.34	U	< 2.68	U	< 4.47	U
Bromoform	NS	NS	NS	NS	NS	< 2.07	U	< 32.4	U	< 4.14	U	< 2.07	U	< 2.07	U	< 2.07	U	< 4.14	U	< 2.07	U	< 2.07	U	< 2.07	U	< 2.07	U	< 2.07	U	< 2.07	U	< 2.58	U	< 2.07	U	< 2.07	U	< 4.14	U	< 6.9	U
Bromomethane	NS	NS	0.5	1.7	NS	< 0.777	U	< 12.2	U	< 1.55	U	< 0.777	U	< 0.777	U	< 0.777	U	< 1.55	U	< 0.777	U	< 0.777	U	< 0.777	U	< 0.777	U	< 0.777	U	< 0.777	U	< 0.971	U	< 0.777	U	< 0.777	U	< 1.55	U	< 2.59	U
Carbon Disulfide	NS	NS	NS	4.2	NS	2.13		< 9.75	U	260		18.5		12.4		19.2		45.8		18.8		8.84		< 0.623	U	1.48		1.83		4.73		7.22		7.72		4.36		1.73		14.2	
Carbon Tetrachloride	6	NS	1.3	1.3	1.1	< 1.26	U	< 19.7	U	< 2.52	U	< 1.26	U	< 1.26	U	< 1.26	U	< 2.52	U	< 1.26	U	< 1.26	U	< 1.26	U	< 1.26	U	< 1.26	U	< 1.26	U	< 1.57	U	< 1.26	U	< 1.26	U	< 2.52	U	< 4.2	U
Chlorobenzene	NS	NS	0.4	0.9	NS	< 0.921	U	< 14.4	U	< 1.84	U	< 0.921	U	< 0.921	U	< 0.921	U	< 1.84	U	< 0.921	U	< 0.921	U	< 0.921	U	< 0.921	U	< 0.921	U	< 0.921	U	< 1.15	U	< 0.921	U	< 0.921	U	< 1.84	U	< 3.07	U
Chloroethane	NS	NS	0.4	1.1	NS	< 0.528	U	< 8.26	U	< 1.06	U	< 0.528	U	< 0.528	U	< 0.528	U	< 1.06	U	< 0.528	U	< 0.528	U	< 0.528	U	< 0.528	U	< 0.528	U	< 0.528	U	< 0.66	U	0.839		< 0.528	U	< 1.06	U	< 1.76	U
Chloroform	NS	NS	1.2	1.1	6.34	< 0.977	U	< 15.3	U	< 1.95	U	< 0.977	U	1.22		< 0.977	U	< 1.95	U	< 0.977	U	< 0.977	U	< 0.977	U	< 0.977	U	< 0.977	U	< 0.977	U	< 1.22	U	11.7		< 0.977	U	< 1.95	U	< 3.26	U
Chloromethane	NS	NS	4.2	3.7	NS	< 0.413	U	< 6.46	U	< 0.826	U	< 0.413	U	2.23		< 0.413	U	2.33		1.77		0.690		1.07		0.940		< 0.413	U	< 0.413	U	< 0.516	U	1		0.461		< 0.826	U	< 1.38	U
Cis-1,2-Dichloroethylene	6	NS	0.4	1.9	NS	< 0.793	U	< 12.4	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.991	U	< 0.793	U	< 0.793	U	< 1.59	U	< 2.64	U
Cis-1,3-Dichloropropene	NS	NS	0.4	2.3	NS	< 0.908	U	< 14.2	U	< 1.82	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.82	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.13	U	< 0.908	U	< 0.908	U	< 1.82	U	< 3.03	U
Cyclohexane	NS	NS	6.3	NS	NS	< 0.688	U	< 10.8	U	9.57		3.55		4.89		2.74		5.16		7.06		2.65		< 0.688	U	< 0.688	U	2.04		2.05		3.99		1.51		3.99		2		3.99	
Dibromochloromethane	NS	NS	NS	NS	NS	< 1.70	U	< 26.7	U	< 3.41	U	< 1.70	U	< 1.70	U	< 1.70	U	< 3.41	U	< 1.70	U	< 1.70	U	< 1.70	U	< 1.70	U	< 1.7	U	< 1.7	U	< 2.13	U	< 1.7	U	< 1.7	U	< 3.41	U	< 5.68	U
Dichlorodifluoromethane	NS	NS	10	16.5	NS	2.53		< 15.5	U	2.50		2.20		2.19		2.45		5.93		2.60		2.66		3.18		5.74		1.21		2		2.03		2.2		2.28		< 1.98	U	< 3.3	U
Ethanol	NS	NS	1300	210.0	NS	< 9.42	U	< 148	U	< 18.8	U	< 9.42	U	36.6		37.1		70.8		58.8		< 9.42	U	< 9.42	U	< 9.42	U	162		190		83.1		89.7		211		107		115	
Ethyl Acetate	NS	NS	NS	5.4	NS	< 1.80	U	< 28.3	U	< 3.60	U	< 1.80	U	< 1.80	U	< 1.80	U	< 3.60	U	< 1.80	U	< 1.80	U	< 1.80	U	< 1.80	U	< 1.8	U	< 1.8	U	< 2.25	U	< 1.8	U	< 1.8	U	< 3.6	U	< 6.02	U
Ethylbenzene	NS	NS	6.4	5.7	7.62	< 0.869	U	< 13.6	U	3.14		1.77		7.73		3.67		6.47		5.69		2.48		1.75		< 0.869	U	7.38		3.33		4.19		5.56		8.73		5.39		4.65	
Hexachlorobutadiene	NS	NS	0.5	6.8	NS	< 2.13	U	< 33.4	U	< 4.27	U	< 2.13	U	< 2.13	U	< 2.13	U	< 4.27	U	< 2.13	U	< 2.13	U	< 2.13	U	< 2.13	U	< 2.13	U	< 2.13	U	< 2.67	U	< 2.13	U	< 2.13	U	< 4.27	U	< 7.11	U
Isopropanol	NS	NS	NS	250.0	NS	9.27		< 19.3	U	< 2.46	U	16.9		50.6		< 1.23	U	2.85		2.23		20.6		< 1.23	U	1.39		6.15		5.21		8.28		4.57		13.5		45.2		40.8	
m,p-Xylene	NS	NS	11	22.2	22.2	< 1.74	U	< 27.2	U	9.82		3.30		12.2		12.9		19.1		17.0		5.47		6.30		2.36		25.9		11.5		15		19.5		31.4		20		14.4	
Methyl Ethyl Ketone (2-Butanone)	NS	NS	16	12.0	NS	14.2		< 23.1	U	18.3		26.8		73.4		259		252		271		17.8		< 1.47	U	2.35		140		108		280		168		70.2		439		711	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	NS	1.9	6.0	NS	< 2.05	U	< 32.1	U	< 4.10	U	< 2.05	U	< 2.05	U	< 2.05	U	< 4.10	U	2.49		< 2.05	U	< 2.05	U	< 2.05	U	< 2.05	U	< 2.05	U	< 2.56	U	< 2.05	U	< 2.05	U	< 4.1	U	< 6.84	U
Methylene Chloride	100	60	16	10.0	7.5	< 1.74	U	< 27.2	U	< 3.47	U	< 1.74	U	< 1.74	U	< 1.74	U	< 3.47	U	3.82		< 1.74	U	< 1.74	U	< 1.74	U	< 1.74	U	7.26		2.26		9.94		1.9		< 3.47	U	< 5.8	U
N-Heptane	NS	NS	18	NS	NS	1.40		< 12.8	U	5.16		5.82		16.6		7.29		10.2		59.8		6.64		< 0.820	U	1.10		7.38		4.22		7.54		7.34		10		4.59		10.8	
N-Hexane	NS	NS	14	10.2	NS	2.25		< 11.0	U	5.29		11.5		42.3		11.4		17.2		147		14.2		< 0.705	U	1.56		8.04		8.21		16.2		11.1		16.2		8.04		34.9	
O-Xylene (1,2-Dimethylbenzene)	NS	NS	7.1	7.9	7.24	< 0.869	U	< 13.6	U	4.07		1.72		5.47		6.04		8.86		8.25		2.43		2.69		1.05		11.5		5.21		7.69		8.86		12.8		9.51		7.56	
Styrene	NS	NS	1.4	1.9	5.13	< 0.852	U	< 13.3	U	< 1.70	U	< 0.852	U	2.03		< 0.852	U	< 1.70	U	0.954		1.04		< 0.852	U	< 0.852	U	1.56		< 0.852	U	< 1.06	U	0.92		2.01		< 1.7	U	< 2.84	U
Tert-Butyl Alcohol	NS	NS	NS	NS	NS	< 1.52	U	< 23.8	U	< 3.03	U	< 1.52	U	< 1.52	U	< 1.52	U	< 3.03	U	< 1.52	U	< 1.52	U	< 1.52	U	< 1.52	U	33		34.6		< 1.89	U	< 1.52	U	21.6		< 3.03	U	< 5.06	U
Tert-Butyl Methyl Ether	NS	NS	14	11.5	36	< 0.721	U	< 11.3	U	< 1.44	U	< 0.721	U	< 0.721	U	< 0.721	U	< 1.44	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.721	U	< 0.901	U	< 0.721	U	< 0.721	U	< 1.44	U	< 2.4	U
Tetrachloroethylene (PCE)	100	30	2.5	15.9	6.01	< 1.36	U	< 21.2	U	< 2.71	U	< 1.36	U	< 1.36	U	1.79		2.73		2.03		< 1.36	U	< 1.36	U	< 1.36	U	< 1.36	U	< 1.36	U	2.64		2.2		< 1.36	U	< 2.71	U	< 4.52	U
Tetrahydrofuran	NS	NS	0.8	NS	NS	< 1.47	U	< 23.1	U	< 2.95	U	< 1.47	U	< 1.47	U	< 1.47	U	< 2.95	U	< 1.47	U	< 1.47	U	< 1.47	U	< 1.47	U	27.2		15.4		< 1.84	U	< 1.47	U	36.9		< 2.95	U	< 4.93	U
Toluene	NS	NS	57	43.0	39.8	2.85		< 11.8	U	11.0		13.1		42.2		24.6		41.5		36.8		14.2		5.95		3.92		17.8		10.4		17.7		31.8		26		16.4		17.5	
Trans-1,2-Dichloroethene	NS	NS	NS	NS	NS	< 0.793	U	< 12.4	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 1.59	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.793	U	< 0.991	U	< 0.793	U	< 0.793	U	< 1.59	U	< 2.64	U
Trans-1,3-Dichloropropene	NS	NS	NS	1.3	NS	< 0.908	U	< 14.2	U	< 1.82	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.82	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 0.908	U	< 1.13	U	< 0.908	U	< 0.908	U	< 1.82	U	< 3.03	U
Trichloroethylene (TCE)	6	2	0.5	4.2	1.36	< 1.07	U	< 16.8	U	< 2.15	U	< 1.07	U	< 1.07	U	< 1.07	U	**2.35**		< 1.07	U	< 1.07	U	< 1.07	U	< 1.07	U	< 1.07	U	< 1.07	U	< 1.34	U	< 1.07	U	< 1.07	U	< 2.15	U	< 3.58	U
Trichlorofluoromethane	NS	NS	12	18.1	NS	1.24		< 17.6	U	< 2.25	U	1.37		1.30		1.58		< 2.25	U	1.52		1.58		1.99		2.73		2.76		2.1		1.83		1.82		6.8		< 2.25	U	< 3.75	U
Vinyl Bromide	NS	NS	NS	NS	NS	< 0.874	U	< 13.7	U	< 1.75	U	< 0.874	U	< 0.874	U	< 0.874	U	< 1.75	U	< 0.874	U	< 0.874	U	< 0.874	U	< 0.874	U	< 0.874	U	< 0.874	U	< 1.09	U	< 0.874	U	< 0.874	U	< 1.75	U	< 2.92	U
Vinyl Chloride	6	NS	0.4	1.9	NS	< 0.511	U	< 8.00	U	< 1.02	U	< 0.511	U	< 0.511	U	< 0.511	U	< 1.02	U	0.695		< 0.511	U	< 0.511	U	< 0.511	U	< 0.511	U	< 0.511	U	< 0.639	U	< 0.511	U	< 0.511	U	< 1.02	U	< 1.71	U

Notes:

1 - NYS Soil Vapor Instrusion Matrix.
2 - NYSDOH Air Guidance Value.
3 - Table C-1 2003 Upper Fence Study of Volatile Organic Chemicals in air of Fuel Oil Heated Homes for Indoor Air.
4 - Table C-2 2001 USEPA BASE 90th Percentile for Indoor Air.
5 - Table C-5 2005 Health Effects Institute 95th Percentile for Indoor Air.

6.13 This value exceeds NYSDOH AGV.

ug/m3 Micrograms per cubic meter.

Qual - Laboratory data qualifier.

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria, The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

NS - No Standard.

Table 3
Post-Remediation Soil Gas Analytical Results Summary – December 4-5, 2019
Rockland Psychiatric Center BCP C344080

							LOCATION	VP-1		VP-2		VP-3		VP-4		VP-5		VP-6		VP-7		VP-8		VP-9		VP-10	
							SAMPLING DATE	12/4/2019		12/4/2019		12/5/2019		12/4/2019		12/4/2019		12/5/2019		12/4/2019		12/4/2019		12/5/2019		12/4/2019	
							LAB SAMPLE ID	L1958249-01		L1958249-02		L1958249-03		L1958249-04		L1958249-05		L1958249-06		L1958249-07		L1958249-08		L1958249-09		L1958249-10	
							SAMPLE TYPE	SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR	
	CasNum	NYSDOH AGV	NY-SSC-A	NY-SSC-B	NY-SSC-C	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics in Air																											
1,1,1-Trichloroethane	71-55-6			100			µg/m3	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5						µg/m3	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U
1,1,2-Trichloroethane	79-00-5						µg/m3	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,1-Dichloroethane	75-34-3						µg/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,1-Dichloroethene	75-35-4		6				µg/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
1,2,4-Trichlorobenzene	120-82-1						µg/m3	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6						µg/m3	19.9		17.8		19.4		12.8		8.16		23.4		18.7		14.1		14.9		18.8	
1,2-Dibromoethane	106-93-4						µg/m3	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U
1,2-Dichlorobenzene	95-50-1						µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2						µg/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,2-Dichloropropane	78-87-5						µg/m3	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U
1,3,5-Trimethylbenzene	108-67-8						µg/m3	3.65		3.39		3.69		2.39		1.54		4.29		3.42		2.55		2.83		3.73	
1,3-Butadiene	106-99-0						µg/m3	0.442	U	0.442	U	0.442	U	0.442	U	1.07		0.442	U	0.442	U	0.442	U	0.442	U	0.442	U
1,3-Dichlorobenzene	541-73-1						µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	106-46-7						µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane	123-91-1						µg/m3	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
2,2,4-Trimethylpentane	540-84-1						µg/m3	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U
2-Butanone	78-93-3						µg/m3	7.55		9.05		7.37		4.95		4.19		7.14		5.54		3.69		4.34		6.34	
2-Hexanone	591-78-6						µg/m3	0.82	U	0.836		0.82	U	0.82	U	0.82	U	0.996		0.885		0.82	U	0.82	U	0.82	U
3-Chloropropene	107-05-1						µg/m3	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U
4-Ethyltoluene	622-96-8						µg/m3	1.92		1.84		2.05		1.37		0.983	U	2.14		1.72		1.27		1.76		2.3	
4-Methyl-2-pentanone	108-10-1						µg/m3	2.05	U	2.05	U	2.05	U	2.05	U	2.4		2.05	U	2.05	U	2.05	U	2.05	U	2.05	U
Acetone	67-64-1						µg/m3	12.1		27.3		19.2		8.6		15.6		10.6		9.29		5.99		11.9		12.1	
Benzene	71-43-2						µg/m3	0.754		1.25		0.952		1.24		3.13		0.93		1.07		0.639	U	0.722		1.21	
Benzyl chloride	100-44-7						µg/m3	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U
Bromodichloromethane	75-27-4						µg/m3	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U
Bromoform	75-25-2						µg/m3	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U
Bromomethane	74-83-9						µg/m3	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U
Carbon disulfide	75-15-0						µg/m3	1.08		0.623	U	0.623	U	0.623	U	0.713		1.95		1.19		1.05		0.623	U	1.33	
Carbon tetrachloride	56-23-5		6				µg/m3	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U
Chlorobenzene	108-90-7						µg/m3	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U
Chloroethane	75-00-3						µg/m3	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U
Chloroform	67-66-3						µg/m3	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	1.87	
Chloromethane	74-87-3						µg/m3	0.574		1.52		0.785		1.02		1.16		0.572		0.661		0.413	U	1.05		1.2	
cis-1,2-Dichloroethene	156-59-2		6				µg/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
cis-1,3-Dichloropropene	10061-01-5						µg/m3	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Cyclohexane	110-82-7						µg/m3	0.688	U	0.688	U	0.688	U	0.688	U	0.688	U	1.81		0.688	U	0.688	U	0.688	U	0.688	U
Dibromochloromethane	124-48-1						µg/m3	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	75-71-8						µg/m3	3.58		3.08		2.48		2.57		2.52		15.6		9		173		2.35		7.76	
Ethanol	64-17-5						µg/m3	9.42	U	31.1		13.5		9.42	U	12.8		9.42	U	12.3		9.42	U	9.53		9.42	U
Ethyl Acetate	141-78-6						µg/m3	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Ethylbenzene	100-41-4						µg/m3	2.25		3.01		2.15		1.52		2		2.42		2.53		1.53		1.53		18.8	
Freon-113	76-13-1						µg/m3	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U
Freon-114	76-14-2						µg/m3	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Heptane	142-82-5						µg/m3	0.82	U	1.49		0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	1.67	
Hexachlorobutadiene	87-68-3						µg/m3	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U
Isopropanol	67-63-0						µg/m3	2.68		4.1		20.5		2.4		4.77		2.28		3.64		3.02		2.31		1.78	
Methyl tert butyl ether	1634-04-4						µg/m3	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
Methylene chloride	75-09-2	60		100			µg/m3	1.74	U	1.74	U	1.74	U	1.74	U	2.59		1.74	U	1.74	U	2.28		1.84		2.17	
n-Hexane	110-54-3						µg/m3	1.29		1.98		1.59		1.31		1.12		2.73		1.64		0.828		1.2		1.3	
o-Xylene	95-47-6						µg/m3	4.33		4.47		4.12		2.75		3		4.78		4.18		2.94		2.95		12.6	
p/m-Xylene	179601-23-1						µg/m3	9.73		11.7		9.47		6.52		8.3		10.9		10.4		6.6		6.69		53	
Styrene	100-42-5						µg/m3	1.22		1.09		1.25		0.852	U	1.52		1.49		1.25		0.954		0.932		1.19	
Tertiary butyl Alcohol	75-65-0						µg/m3	2.3		3.15		1.78		1.81		1.52	U	2.08		1.85		1.52	U	1.52	U	3.36	
Tetrachloroethene	127-18-4	30		100			µg/m3	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	3.7		1.36	U	1.36	U	1.36	U	1.36	U

Table 3
Post-Remediation Soil Gas Analytical Results Summary – December 4-5, 2019
Rockland Psychiatric Center BCP C344080

							LOCATION	VP-1		VP-2		VP-3		VP-4		VP-5		VP-6		VP-7		VP-8		VP-9		VP-10	
							SAMPLING DATE	12/4/2019		12/4/2019		12/5/2019		12/4/2019		12/4/2019		12/5/2019		12/4/2019		12/4/2019		12/5/2019		12/4/2019	
							LAB SAMPLE ID	L1958249-01		L1958249-02		L1958249-03		L1958249-04		L1958249-05		L1958249-06		L1958249-07		L1958249-08		L1958249-09		L1958249-10	
							SAMPLE TYPE	SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR	
		CasNum	NYSDOH AGV	NY-SSC-A	NY-SSC-B	NY-SSC-C	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics in Air																											
	Tetrahydrofuran	109-99-9					µg/m3	8.76		9		10.4		6.84		4.48		9.79		7.28		4.95		5.75		7.93	
	Toluene	108-88-3					µg/m3	7.54		9.04		8.71		7.61		5.2		10.3		7.73		5.39		7.12		10.4	
	trans-1,2-Dichloroethene	156-60-5					µg/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
	trans-1,3-Dichloropropene	10061-02-6					µg/m3	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
	Trichloroethene	79-01-6	2	6			µg/m3	1.07	U	1.07	U	2.07		1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	41.6	
	Trichlorofluoromethane	75-69-4					µg/m3	1.78		1.49		1.58		1.42		1.35		8.09		4.89		38.7		1.29		1.63	
	Vinyl bromide	593-60-2					µg/m3	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U
	Vinyl chloride	75-01-4				6	µg/m3	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U

Notes:
NYSDOH AGV: New York DOH Air Guidance Value.
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-C: New York DOH Matrix C Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
Yellow highlight indicates an exceedance of the NYSDOH Sub-Slab Matrices or NYSDOH Air Guidance Value
U: Not detected at the reported detection limit for the sample.
µg/m3: Micrograms per cubic meter.

Table 4
Post-Remediatio Indoor Air and Ambient Air Analytical Results Summary
December 4-5, 2019
Rockland Psychiatric Center BCP C344080

						LOCATION	**OAA**		**IAA**	
						SAMPLING DATE	**12/4/2019**		**12/4/2019**	
						LAB SAMPLE ID	**L1958249-11**		**L1958249-12**	
						SAMPLE TYPE	**AIR**		**AIR**	
	CasNum	**NYSDOH AGV**	**NY-IAC-A**	**NY-IAC-B**	**NY-IAC-C**	**Units**	**Results**	**Qual**	**Results**	**Qual**
Volatile Organics in Air										
1,1,2,2-Tetrachloroethane	79-34-5					µg/m3	1.37	U	1.37	U
1,1,2-Trichloroethane	79-00-5					µg/m3	1.09	U	1.09	U
1,1-Dichloroethane	75-34-3					µg/m3	0.809	U	0.809	U
1,2,4-Trichlorobenzene	120-82-1					µg/m3	1.48	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6					µg/m3	0.983	U	15.7	
1,2-Dibromoethane	106-93-4					µg/m3	1.54	U	1.54	U
1,2-Dichlorobenzene	95-50-1					µg/m3	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2					µg/m3	0.809	U	0.809	U
1,2-Dichloropropane	78-87-5					µg/m3	0.924	U	0.924	U
1,3,5-Trimethylbenzene	108-67-8					µg/m3	0.983	U	3.78	
1,3-Butadiene	106-99-0					µg/m3	0.442	U	0.442	U
1,3-Dichlorobenzene	541-73-1					µg/m3	1.2	U	1.2	U
1,4-Dichlorobenzene	106-46-7					µg/m3	1.2	U	1.2	U
1,4-Dioxane	123-91-1					µg/m3	0.721	U	0.721	U
2,2,4-Trimethylpentane	540-84-1					µg/m3	0.934	U	0.934	U
2-Butanone	78-93-3					µg/m3	1.47	U	4.93	
2-Hexanone	591-78-6					µg/m3	0.82	U	0.82	U
3-Chloropropene	107-05-1					µg/m3	0.626	U	0.626	U
4-Ethyltoluene	622-96-8					µg/m3	0.983	U	1.96	
4-Methyl-2-pentanone	108-10-1					µg/m3	2.05	U	2.05	U
Acetone	67-64-1					µg/m3	3.97		200	
Benzene	71-43-2					µg/m3	0.744		0.952	
Benzyl chloride	100-44-7					µg/m3	1.04	U	1.04	U
Bromodichloromethane	75-27-4					µg/m3	1.34	U	1.34	U
Bromoform	75-25-2					µg/m3	2.07	U	2.07	U
Bromomethane	74-83-9					µg/m3	0.777	U	0.777	U
Carbon disulfide	75-15-0					µg/m3	0.623	U	1.14	
Chlorobenzene	108-90-7					µg/m3	0.921	U	0.921	U
Chloroethane	75-00-3					µg/m3	0.528	U	0.528	U
Chloroform	67-66-3					µg/m3	0.977	U	0.977	U
Chloromethane	74-87-3					µg/m3	1.06		1.1	
cis-1,3-Dichloropropene	10061-01-5					µg/m3	0.908	U	0.908	U
Cyclohexane	110-82-7					µg/m3	0.688	U	0.688	U
Dibromochloromethane	124-48-1					µg/m3	1.7	U	1.7	U
Dichlorodifluoromethane	75-71-8					µg/m3	2.43		6.03	
Ethanol	64-17-5					µg/m3	9.42	U	21.5	
Ethyl Acetate	141-78-6					µg/m3	1.8	U	1.8	U
Ethylbenzene	100-41-4					µg/m3	0.869	U	51.3	
Freon-113	76-13-1					µg/m3	1.53	U	1.53	U
Freon-114	76-14-2					µg/m3	1.4	U	1.4	U
Heptane	142-82-5					µg/m3	0.82	U	1.41	
Hexachlorobutadiene	87-68-3					µg/m3	2.13	U	2.13	U
Isopropanol	67-63-0					µg/m3	1.23	U	8.11	
Methyl tert butyl ether	1634-04-4					µg/m3	0.721	U	0.721	U
Methylene chloride	75-09-2	60		3		µg/m3	1.74	U	2.87	
n-Hexane	110-54-3					µg/m3	0.705	U	0.705	U
o-Xylene	95-47-6					µg/m3	0.869	U	52.6	
p/m-Xylene	179601-23-1					µg/m3	1.74	U	184	
Styrene	100-42-5					µg/m3	0.852	U	2.97	
Tertiary butyl Alcohol	75-65-0					µg/m3	1.52	U	1.52	U
Tetrahydrofuran	109-99-9					µg/m3	1.47	U	1.47	U
Toluene	108-88-3					µg/m3	1.23		4.9	
trans-1,2-Dichloroethene	156-60-5					µg/m3	0.793	U	0.793	U
trans-1,3-Dichloropropene	10061-02-6					µg/m3	0.908	U	0.908	U

Table 4
Post-Remediatio Indoor Air and Ambient Air Analytical Results Summary
December 4-5, 2019
Rockland Psychiatric Center BCP C344080

						LOCATION	**OAA**		**IAA**	
						SAMPLING DATE	**12/4/2019**		**12/4/2019**	
						LAB SAMPLE ID	**L1958249-11**		**L1958249-12**	
						SAMPLE TYPE	**AIR**		**AIR**	
	CasNum	**NYSDOH AGV**	**NY-IAC-A**	**NY-IAC-B**	**NY-IAC-C**	**Units**	**Results**	**Qual**	**Results**	**Qual**
Volatile Organics in Air										
Trichlorofluoromethane	75-69-4					µg/m3	1.17		1.39	
Vinyl bromide	593-60-2					µg/m3	0.874	U	0.874	U
Volatile Organics in Air by SIM										
1,1,1-Trichloroethane	71-55-6			3		µg/m3	0.109	U	0.109	U
1,1-Dichloroethene	75-35-4		0.2			µg/m3	0.079	U	0.079	U
Carbon tetrachloride	56-23-5		0.2			µg/m3	0.497		0.484	
cis-1,2-Dichloroethene	156-59-2		0.2			µg/m3	0.079	U	0.079	U
Tetrachloroethene	127-18-4	30		3		µg/m3	0.292		0.305	
Trichloroethene	79-01-6	2	0.2			µg/m3	0.21		67.2	
Vinyl chloride	75-01-4				0.2	µg/m3	0.051	U	0.051	U

Notes:

NYSDOH AGV: New York DOH Air Guidance Value.

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-IAC-B: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

NY-IAC-C: New York DOH Matrix C Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

Yellow highlight indicates an exceedance of the NYSDOH Sub-Slab Matrices or NYSDOH Air Guidance Value

U: Not detected at the reported detection limit for the sample.

µg/m3: Micrograms per cubic meter.

Table 5
Post-Remediation Soil Gas Analytical Results Summary
January and February 2020
Rockland Psychiatric Center BCP C344080

						LOCATION	VISITORS BLDG-VP-10		VP-10A	
						SAMPLING DATE	1/27/2020		2/5/2020	
						LAB SAMPLE ID	L2003767-03		L2005280-03	
						SAMPLE TYPE	SOIL_VAPOR		SOIL_VAPOR	
	CasNum	NYSDOH AGV	NY-SSC-A	NY-SSC-B	NY-SSC-C	Units	Results	Qual	Results	Qual
Volatile Organics in Air										
1,1,1-Trichloroethane	71-55-6			100		µg/m3	1.09	U	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5					µg/m3	1.37	U	1.37	U
1,1,2-Trichloroethane	79-00-5					µg/m3	1.09	U	1.09	U
1,1-Dichloroethane	75-34-3					µg/m3	0.809	U	0.809	U
1,1-Dichloroethene	75-35-4		6			µg/m3	0.793	U	0.793	U
1,2,4-Trichlorobenzene	120-82-1					µg/m3	1.48	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6					µg/m3	12.1		0.983	U
1,2-Dibromoethane	106-93-4					µg/m3	1.54	U	1.54	U
1,2-Dichlorobenzene	95-50-1					µg/m3	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2					µg/m3	0.809	U	0.809	U
1,2-Dichloropropane	78-87-5					µg/m3	0.924	U	0.924	U
1,3,5-Trimethylbenzene	108-67-8					µg/m3	2.7		0.983	U
1,3-Butadiene	106-99-0					µg/m3	0.442	U	0.442	U
1,3-Dichlorobenzene	541-73-1					µg/m3	1.2	U	1.2	U
1,4-Dichlorobenzene	106-46-7					µg/m3	1.2	U	1.2	U
1,4-Dioxane	123-91-1					µg/m3	0.721	U	0.721	U
2,2,4-Trimethylpentane	540-84-1					µg/m3	0.934	U	0.934	U
2-Butanone	78-93-3					µg/m3	2.65		3.89	
2-Hexanone	591-78-6					µg/m3	0.82	U	0.82	U
3-Chloropropene	107-05-1					µg/m3	0.626	U	0.626	U
4-Ethyltoluene	622-96-8					µg/m3	1		0.983	U
4-Methyl-2-pentanone	108-10-1					µg/m3	2.05	U	2.05	U
Acetone	67-64-1					µg/m3	19.5		40.6	
Benzene	71-43-2					µg/m3	1.38		0.716	
Benzyl chloride	100-44-7					µg/m3	1.04	U	1.04	U
Bromodichloromethane	75-27-4					µg/m3	1.34	U	1.34	U
Bromoform	75-25-2					µg/m3	2.07	U	2.07	U
Bromomethane	74-83-9					µg/m3	0.777	U	0.777	U
Carbon disulfide	75-15-0					µg/m3	0.828		0.623	U
Carbon tetrachloride	56-23-5		6			µg/m3	1.26	U	1.26	U
Chlorobenzene	108-90-7					µg/m3	0.921	U	0.921	U
Chloroethane	75-00-3					µg/m3	0.528	U	0.528	U
Chloroform	67-66-3					µg/m3	1.54		0.977	U
Chloromethane	74-87-3					µg/m3	1.1		0.927	
cis-1,2-Dichloroethene	156-59-2		6			µg/m3	0.793	U	0.793	U
cis-1,3-Dichloropropene	10061-01-5					µg/m3	0.908	U	0.908	U
Cyclohexane	110-82-7					µg/m3	0.688	U	0.688	U
Dibromochloromethane	124-48-1					µg/m3	1.7	U	1.7	U
Dichlorodifluoromethane	75-71-8					µg/m3	14.1		3.38	
Ethanol	64-17-5					µg/m3	13.1		61.2	
Ethyl Acetate	141-78-6					µg/m3	1.8	U	1.8	U
Ethylbenzene	100-41-4					µg/m3	8.12		2.29	
Freon-113	76-13-1					µg/m3	1.53	U	1.53	U
Freon-114	76-14-2					µg/m3	1.4	U	1.4	U
Heptane	142-82-5					µg/m3	0.951		0.82	U
Hexachlorobutadiene	87-68-3					µg/m3	2.13	U	2.13	U
Isopropanol	67-63-0					µg/m3	1.23	U	1.85	
Methyl tert butyl ether	1634-04-4					µg/m3	0.721	U	0.721	U
Methylene chloride	75-09-2	60		100		µg/m3	1.74	U	1.74	U
n-Hexane	110-54-3					µg/m3	1.78		0.705	U
o-Xylene	95-47-6					µg/m3	11.5		3.03	
p/m-Xylene	179601-23-1					µg/m3	32.6		10.2	
Styrene	100-42-5					µg/m3	1.46		1.45	
Tertiary butyl Alcohol	75-65-0					µg/m3	1.84		2.73	
Tetrachloroethene	127-18-4	30		100		µg/m3	1.36	U	1.36	U
Tetrahydrofuran	109-99-9					µg/m3	1.47	U	2.6	
Toluene	108-88-3					µg/m3	7.05		1.29	
trans-1,2-Dichloroethene	156-60-5					µg/m3	0.793	U	0.793	U
trans-1,3-Dichloropropene	10061-02-6					µg/m3	0.908	U	0.908	U
Trichloroethene	79-01-6	2	6			µg/m3	14.6		1.35	
Trichlorofluoromethane	75-69-4					µg/m3	1.43		1.29	
Vinyl bromide	593-60-2					µg/m3	0.874	U	0.874	U
Vinyl chloride	75-01-4				6	µg/m3	0.511	U	0.511	U

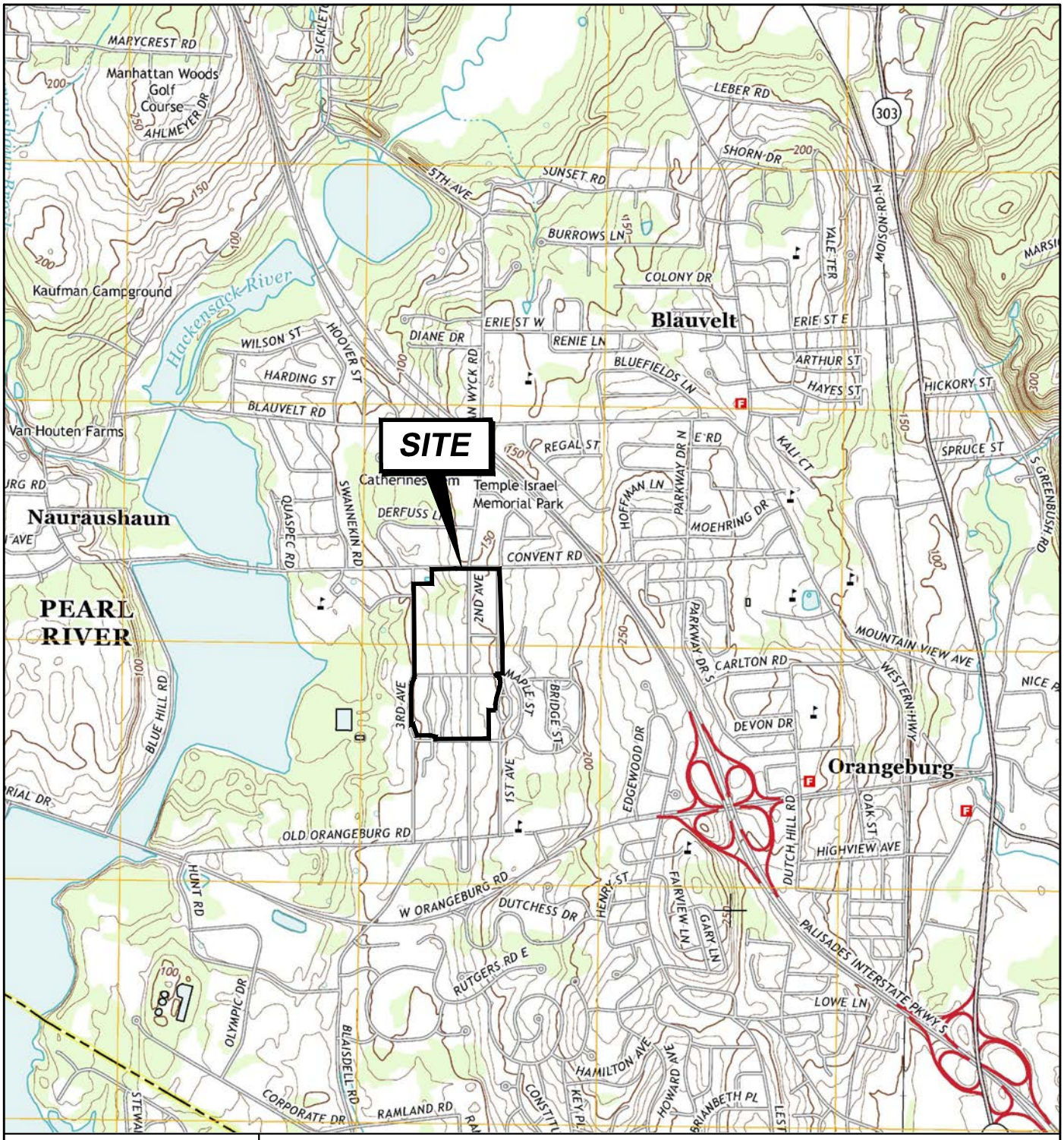
Notes:
NYSDOH AGV: New York DOH Air Guidance Value.
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-C: New York DOH Matrix C Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
Yellow highlight indicates an exceedance of the NYSDOH Sub-Slab Matrices or NYSDOH Air Guidance Value
U: Not detected at the reported detection limit for the sample.
µg/m3: Micrograms per cubic meter.

Table 6
Post-Remediation Indoor Air and Ambient Air Analytical Results
Late December 2019-February 2020
Rockland Psychiatric Center BCP C344080

							LOCATION	IAA 1		IAA 2		VISITORS BLDG-IAA-01		VISITORS BLDG-OAA-01		VISITORS BLDG-IAA-02		VB-OAA		VB-IAA	
							SAMPLING DATE	12/26/2019		12/26/2019		1/13/2020		1/27/2020		1/27/2020		2/5/2020		2/5/2020	
							LAB SAMPLE ID	L1961731-01		L1961731-02		L2001552-01		L2003767-01		L2003767-02		L2005280-01		L2005280-02	
							SAMPLE TYPE	AIR		AIR		AIR		AIR		AIR		AIR		AIR	
	CasNum	NYSDOH AGV	NY-IAC-A	NY-IAC-B	NY-IAC-C	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	
Volatile Organics in Air																					
1,1,2,2-Tetrachloroethane	79-34-5					µg/m3	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U	
1,1,2-Trichloroethane	79-00-5					µg/m3	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	
1,1-Dichloroethane	75-34-3					µg/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	
1,2,4-Trichlorobenzene	120-82-1					µg/m3	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U	
1,2,4-Trimethylbenzene	95-63-6					µg/m3	18.5		6.69		19.9		0.983	U	8.26		0.983	U	0.983	U	
1,2-Dibromoethane	106-93-4					µg/m3	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U	
1,2-Dichlorobenzene	95-50-1					µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	
1,2-Dichloroethane	107-06-2					µg/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	
1,2-Dichloropropane	78-87-5					µg/m3	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U	
1,3,5-Trimethylbenzene	108-67-8					µg/m3	4.24		1.72		3.24		0.983	U	1.91		0.983	U	0.983	U	
1,3-Butadiene	106-99-0					µg/m3	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U	
1,3-Dichlorobenzene	541-73-1					µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	
1,4-Dichlorobenzene	106-46-7					µg/m3	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U	
1,4-Dioxane	123-91-1					µg/m3	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	
2,2,4-Trimethylpentane	540-84-1					µg/m3	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	0.934	U	
2-Butanone	78-93-3					µg/m3	4.25		7.82		1.47	U	1.47	U	1.53		1.47	U	1.47	U	
2-Hexanone	591-78-6					µg/m3	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	
3-Chloropropene	107-05-1					µg/m3	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U	
4-Ethyltoluene	622-96-8					µg/m3	2.08		1.17		2.03		0.983	U	0.983	U	0.983	U	0.983	U	
4-Methyl-2-pentanone	108-10-1					µg/m3	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U	
Acetone	67-64-1					µg/m3	43.2		91.2		8.58		4.39		16.1		2.38	U	13.3		
Benzene	71-43-2					µg/m3	1.47		2.06		0.639	U	0.639	U	0.722		0.639	U	0.639	U	
Benzyl chloride	100-44-7					µg/m3	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U	
Bromodichloromethane	75-27-4					µg/m3	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U	
Bromoform	75-25-2					µg/m3	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U	
Bromomethane	74-83-9					µg/m3	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U	
Carbon disulfide	75-15-0					µg/m3	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U	
Chlorobenzene	108-90-7					µg/m3	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U	
Chloroethane	75-00-3					µg/m3	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U	
Chloroform	67-66-3					µg/m3	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	0.977	U	
Chloromethane	74-87-3					µg/m3	1.14		1.14		0.882		1.02		1.08		0.89		0.882		
cis-1,3-Dichloropropene	10061-01-5					µg/m3	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	
Cyclohexane	110-82-7					µg/m3	0.688	U	0.995		0.688	U	0.688	U	0.688	U	0.688	U	0.688	U	
Dibromochloromethane	124-48-1					µg/m3	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U	
Dichlorodifluoromethane	75-71-8					µg/m3	5.39		9.59		4.19		2.6		5.74		2.46		3.36		
Ethanol	64-17-5					µg/m3	14.8		25.2		14.4		9.42	U	37.3		9.42	U	27.9		
Ethyl Acetate	141-78-6					µg/m3	1.8	U	1.8	U	1.8	U	1.8	U	2.36		1.8	U	1.8	U	
Ethylbenzene	100-41-4					µg/m3	25.5		20.1		22.9		0.869	U	6.12		0.869	U	1.67		
Freon-113	76-13-1					µg/m3	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U	
Freon-114	76-14-2					µg/m3	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U	
Heptane	142-82-5					µg/m3	1.29		1.98		0.82	U	0.82	U	0.82	U	0.82	U	0.82	U	
Hexachlorobutadiene	87-68-3					µg/m3	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U	
Isopropanol	67-63-0					µg/m3	5.83		8.14		1.44		1.23	U	1.63		1.23	U	1.23	U	
Methyl tert butyl ether	1634-04-4					µg/m3	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U	
Methylene chloride	75-09-2	60		3		µg/m3	2.25		3.79		1.74	U	1.74	U	1.74	U	1.74	U	1.74	U	
n-Hexane	110-54-3					µg/m3	2.94		0.793		0.705	U	0.705	U	0.705	U	0.705	U	0.705	U	
o-Xylene	95-47-6					µg/m3	32.6		25.2		28.9		0.869	U	8.73		0.869	U	2.29		
p/m-Xylene	179601-23-1					µg/m3	104		83.4		88.2		1.74	U	25.9		1.74	U	7.73		
Styrene	100-42-5					µg/m3	2.59		4.94		1.24		0.852	U	1.12		0.852	U	1.08		
Tertiary butyl Alcohol	75-65-0					µg/m3	1.52	U	2.24		1.52	U	1.52	U	1.52	U	1.52	U	1.52	U	
Tetrahydrofuran	109-99-9					µg/m3	1.47	U	1.71		1.47	U	1.47	U	1.47	U	1.47	U	1.47	U	
Toluene	108-88-3					µg/m3	4.67		9.5		1.75		0.754	U	2.38		0.754	U	0.754	U	
trans-1,2-Dichloroethene	156-60-5					µg/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	
trans-1,3-Dichloropropene	10061-02-6					µg/m3	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U	
Trichlorofluoromethane	75-69-4					µg/m3	1.48		1.59		1.13		1.15		1.35		1.16		1.43		
Vinyl bromide	593-60-2					µg/m3	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U	
Volatile Organics in Air by SIM																					
1,1,1-Trichloroethane	71-55-6			3		µg/m3	0.109	U	0.109	U	0.109	U	0.109	U	0.109	U	0.109	U	0.109	U	
1,1-Dichloroethene	75-35-4		0.2			µg/m3	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	
Carbon tetrachloride	56-23-5		0.2			µg/m3	0.667		0.56		0.503		0.465		0.472		0.472		0.491		
cis-1,2-Dichloroethene	156-59-2		0.2			µg/m3	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	0.079	U	
Tetrachloroethene	127-18-4	30		3		µg/m3	0.278		0.203		0.136	U	0.136	U	0.136	U	0.136	U	0.136	U	
Trichloroethene	79-01-6	2	0.2			µg/m3	38.9		32.8		18.8		0.355		17.8		0.107	U	0.57		
Vinyl chloride	75-01-4				0.2	µg/m3	0.051	U	0.051	U	0.051	U	0.051	U	0.051	U	0.051	U	0.051	U	

Notes:
NYSDOH AGV: New York DOH Air Guidance Value.
NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-IAC-B: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-IAC-C: New York DOH Matrix C Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
Yellow highlight indicates an exceedance of the NYSDOH Sub-Slab Matrices or NYSDOH Air Guidance Value
U: Not detected at the reported detection limit for the sample.
µg/m3: Micrograms per cubic meter.

FIGURES



NEW YORK

QUADRANGLE LOCATION

SOURCE:
USGS TOPOGRAPHIC MAP: NYACK, NY-NJ (2013).
CONTOUR INTERVAL 10 FT., NAVD-1988, ORIGINAL
SCALE 1:24,000 (1" = 2,000 FT.).

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140 OLD ORANGEBURG ROAD
ORANGETOWN, NEW YORK

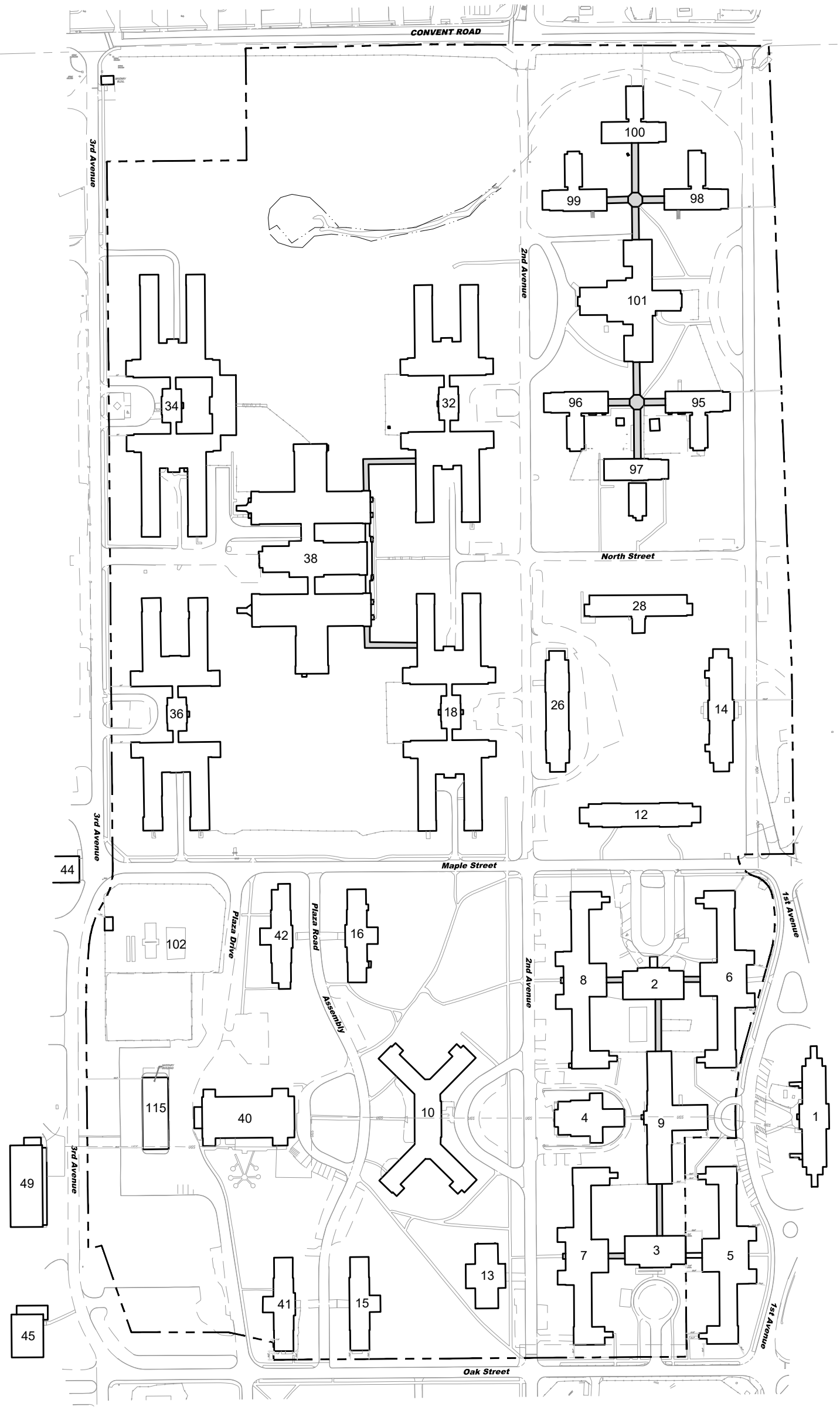
PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
JP MORGAN CHASE BANK, NA

SITE LOCATION PLAN

PROJ MGR: MS	REVIEWED BY: ZS	CHECKED BY: ZS	FIGURE 1
DESIGNED BY: ZS	DRAWN BY: MT	SCALE: 1" = 2,000'	
DATE: JUNE 2018	PROJECT NO. 12.0076555.00	REVISION NO.	SHEET NO.

© 2018 – GZA GeoEnvironmental, Inc. GZA–J:\76500's\12.0076555.00\Figures\CAD\2017\76555.00.003 F1–SLM.dwg [1] June 06, 2018 – 2:14pm miguel.torres



NOTES:

SITE BOUNDARY

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 4/20/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300.

N W E S

0 100 200 400

SCALE IN FEET

©2017 – GZA GeoEnvironmental, Inc. GZA–J:\76500's\12.0076555.00\FIGURES\CAD\76555.00.002.DWG 2 SEPTEMBER 8, 2017 MIGUEL TORRES

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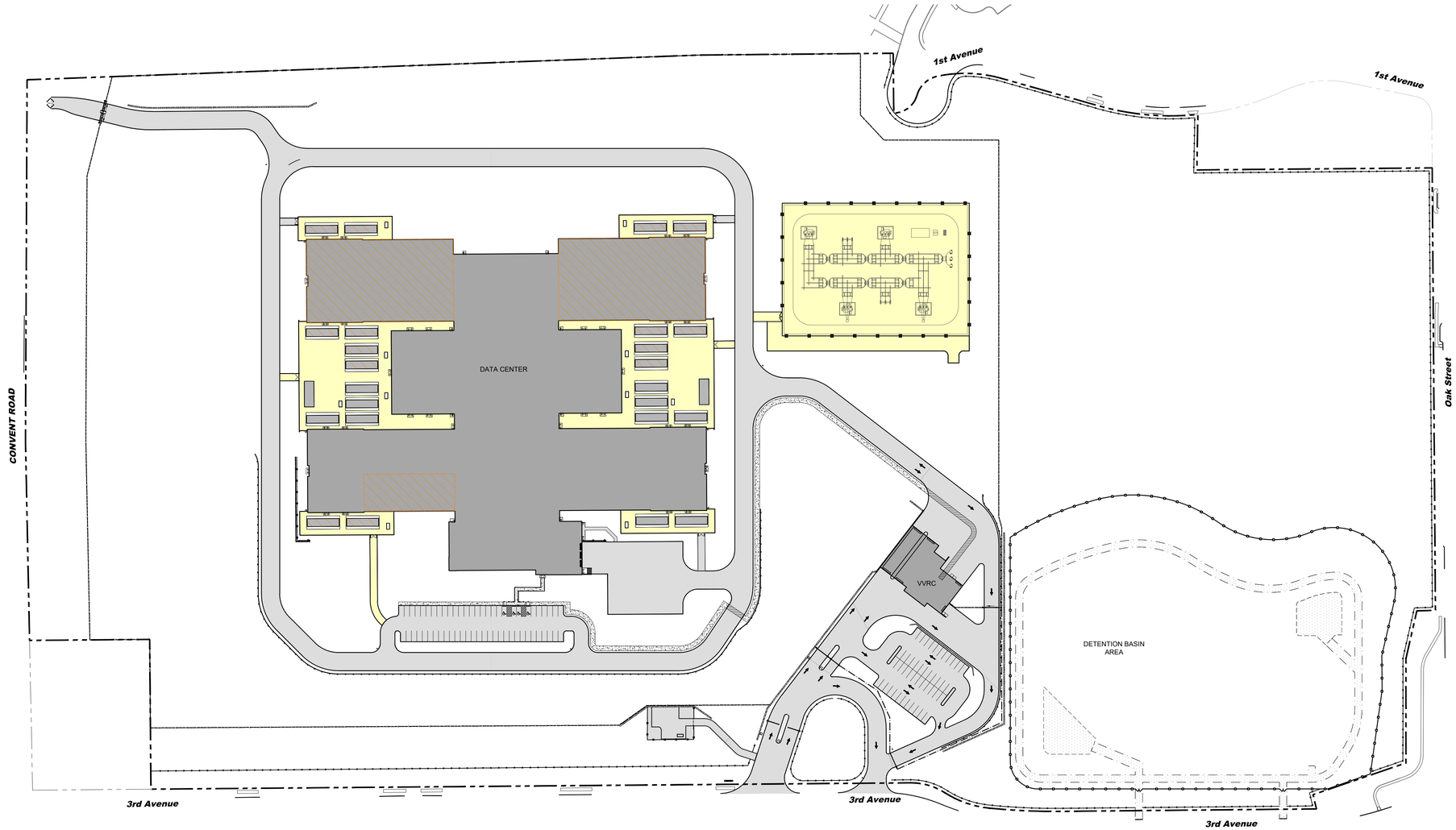
RPC - CORE AREA SITE - 140 OLD ORANGEBURG ROAD (PARCEL BOUNDED BY CONVENT ROAD, THIRD AVENUE, OAK STREET AND FIRST AVENUE) SECTION 73.08, BLOCK 1, LOT 1
ORANGETOWN, NEW YORK

FORMER SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: JP MORGAN CHASE BANK, NA	
PROJ MGR: MS	REVIEWED BY: MS	CHECKED BY: ZS	FIGURE 2
DESIGNED BY: MS	DRAWN BY: MT	SCALE: 1" = 200'	SHEET NO.
DATE: JUNE 2018	PROJECT NO. 12.0076555.00	REVISION NO.	



LEGEND:

- SITE BOUNDARY
- SITE FENCING
- SITE BUILDINGS
- PAVED AREAS
- GRAVEL AREAS
- AREA TO BE CONSTRUCTED
- BASIN ROADWAY
- SIDEWALK
- GUARD RAIL

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 4/20/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300.

N E S W

0 50' 100' 200' 300'

SCALE IN FEET 1" = 100'

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140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: JP MORGAN CHASE AND COMPANY	
PROJ MGR: MS	REVIEWED BY: DW	CHECKED BY: LD	FIGURE 3
DESIGNED BY: DW	DRAWN BY: LN	SCALE: 1" = 100'	
DATE: APRIL 2020	PROJECT NO. 12.0076555.02	REVISION NO.	SHEET NO.

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	Soil Vapor Instrusion Matrix in the State of New York State	NYSDOH Air Guidance Value[1]	Fuel Oil 2003 Upper Indoor[2]	BASE Data 90th[3]	2005 95th Percentile Indoor[4]	SG4 4/4/2017 3' bgs µg/m³
Soil Vapor						
1,3-Butadiene			-	<3.0	-	6.75
1,1,1-Trichloroethane	100	-	2.5	20.6	-	<1.09
Carbon tetrachloride	5	-	1.3	<1.3	1.1	<1.26
Trichloroethene	5	5	0.5	4.2	1.36	<1.07
Tetrachloroethene	100	30	2.5	15.9	6.01	<1.36
p/m-Xylene	-	-	11	22.2	22.2	5.91

	Soil Vapor Instrusion Matrix in the State of New York State	NYSDOH Air Guidance Value[1]	Fuel Oil 2003 Upper Indoor[2]	BASE Data 90th[3]	2005 95th Percentile Indoor[4]	SG5 4/4/2017 3' bgs µg/m³
Soil Vapor						
1,3-Butadiene		-	-	<3.0	-	11.8
1,1,1-Trichloroethane	100	-	2.5	20.6	-	<3.64
Carbon tetrachloride	5	-	1.3	<1.3	1.1	<4.2
Trichloroethene	5	5	0.5	4.2	1.36	<3.58
Tetrachloroethene	100	30	2.5	15.9	6.01	<4.52
p/m-Xylene	-	-	11	22.2	22.2	<5.78

	Soil Vapor Instrusion Matrix in the State of New York State	NYSDOH Air Guidance Value[1]	Fuel Oil 2003 Upper Indoor[2]	BASE Data 90th[3]	2005 95th Percentile Indoor[4]	SG1 4/4/2017 5' bgs µg/m³
Soil Vapor						
1,3-Butadiene				<3.0	-	9.65
1,1,1-Trichloroethane	100	-	2.5	20.6	-	<1.09
Carbon tetrachloride	5	-	1.3	<1.3	1.1	<1.26
Trichloroethene	5	5	0.5	4.2	1.36	<1.07
Tetrachloroethene	100	30	2.5	15.9	6.01	<1.36
p/m-Xylene	-	-	11	22.2	22.2	1.89

	Soil Vapor Instrusion Matrix in the State of New York State	NYSDOH Air Guidance Value[1]	Fuel Oil 2003 Upper Indoor[2]	BASE Data 90th[3]	2005 95th Percentile Indoor[4]	SG2 4/4/2017 5' bgs µg/m³
Soil Vapor						
Dichlorodifluoromethane			10	16.5	-	2560
1,3-Butadiene			-	<3.0	-	10.1
Trichlorofluoromethane			12	18.1	-	697
1,1,1-Trichloroethane	100	-	2.5	20.6	-	<10.9
Carbon tetrachloride	5	-	1.3	<1.3	1.1	<12.6
Trichloroethene	5	5	0.5	4.2	1.36	<10.7
Tetrachloroethene	100	30	2.5	15.9	6.01	<13.6
p/m-Xylene	-	-	11	22.2	22.2	<17.4

	Soil Vapor Instrusion Matrix in the State of New York State	NYSDOH Air Guidance Value[1]	Fuel Oil 2003 Upper Indoor[2]	BASE Data 90th[3]	2005 95th Percentile Indoor[4]	SG3 4/4/2017 3' bgs µg/m³
Soil Vapor						
1,1,1-Trichloroethane	100	-	2.5	20.6	-	<1.09
Carbon tetrachloride	5	-	1.3	<1.3	1.1	<1.26
Trichloroethene	5	5	0.5	4.2	1.36	6.13
Tetrachloroethene	100	30	2.5	15.9	6.01	<1.36
p/m-Xylene	-	-	11	22.2	22.2	17.3

LEGEND:

- SITE BOUNDARY
- SITE FENCING
- SITE BUILDINGS
- PAVED AREAS
- GRAVEL AREAS
- FORMER SITE BUILDINGS
- AREA TO BE CONSTRUCTED
- BASIN ROADWAY
- SIDEWALK
- GUARD RAIL
- SOIL GAS SAMPLE LOCATION
- 6.75 EXCEEDS ONE OR MORE STANDARD OTHER THAN THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) AIR GUIDANCE VALUE (AGV)
- 6.13 EXCEEDS NYSDOH AGV
- µg/m³ MICROGRAMS PER METER CUBED
- bgs BELOW GROUND SURFACE

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 4/20/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300.
2. COMPOUNDS PRESENTED ARE CONTAMINANTS OF CONCERN WITH RESPECT TO ADJACENT SITE SOURCES AND THOSE WITH EXCEEDANCES ABOVE ONE OR MORE STANDARD.

N E S W

0 50' 100' 200' 300'

SCALE IN FEET 1" = 100'

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140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

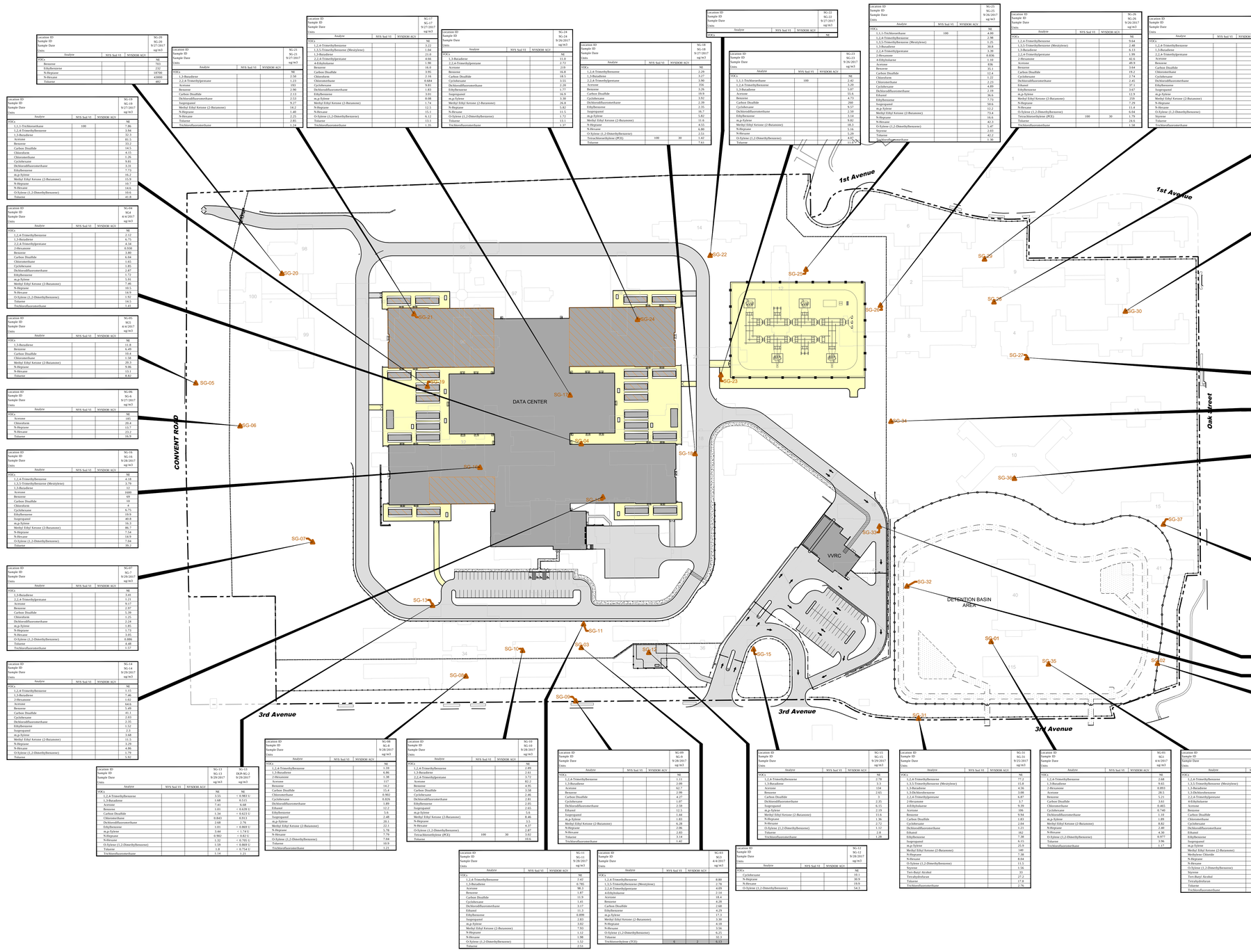
SUPPLEMENTAL INVESTIGATION
SOIL GAS ANALYTICAL RESULTS SUMMARY

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
JP MORGAN CHASE AND COMPANY

PROJ MGR: MS	REVIEWED BY: DW	CHECKED BY: LD	FIGURE 4
DESIGNED BY: DW	DRAWN BY: LN	SCALE: 1" = 100'	
DATE: APRIL 2020	PROJECT NO. 12.0076555.02	REVISION NO.	SHEET NO.

©2020 – GZA GeoEnvironmental, Inc. G:\ZA\76551 TO 76600\76555. ROCKLAND COUNTY PYSCHIATRIC CENTER\POST-REMEDIATION SOIL VAPOR SAMPLING\COMPREHENSIVE REPORT\FIGURES\76555.02_2.DWG 51 APRIL 20, 2020 5:12 PM LINDSAY NUNES



Location ID	SG-19
Sample ID	SG-19
Sample Date	9/27/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,1,1-Trichloroethane	100		7.06
1,2,4-Trimethylbenzene			3.94
1,3-Butadiene			57.3
Acetone			81.5
Benzene			12.2
Carbon Disulfide			14.5
Chloroform			0.63
Chloromethane			1.26
Cyclohexane			9.81
Dichlorodifluoromethane			3.31
Ethylbenzene			7.73
m,p-Xylene			26.2
Methyl Ethyl Ketone (2-Butanone)			15.9
N-Heptane			19.7
N-Hexane			14.6
O-Xylene (1,2-Dimethylbenzene)			10.6
Toluene			41.8

Location ID	SG-20
Sample ID	SG-20
Sample Date	9/27/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
Benzene			793
Ethylbenzene			232
N-Heptane			16700
N-Hexane			42000
Toluene			482

Location ID	SG-21
Sample ID	SG-21
Sample Date	9/27/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,3-Butadiene			2.30
2,4-Trimethylpentane			1.23
Acetone			190
Benzene			3.83
Carbon Disulfide			2.13
Dichlorodifluoromethane			2.53
Isopropanol			9.27
Methyl Ethyl Ketone (2-Butanone)			14.2
N-Heptane			1.40
N-Hexane			2.25
Toluene			2.85
Trichlorofluoromethane			1.74

Location ID	SG-22
Sample ID	SG-22
Sample Date	9/27/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			3.32
1,3,5-Trimethylbenzene (Mesitylene)			1.04
1,3-Butadiene			21.0
2,2,4-Trimethylpentane			4.66
4-Ethyltoluene			1.90
Benzene			16.0
Carbon Disulfide			3.95
Chloroform			2.76
Chloromethane			0.684
Cyclohexane			9.85
Dichlorodifluoromethane			3.26
Ethylbenzene			3.81
m,p-Xylene			8.08
Methyl Ethyl Ketone (2-Butanone)			1.74
N-Heptane			12.5
N-Hexane			15.1
O-Xylene (1,2-Dimethylbenzene)			6.12
Toluene			13.1
Trichlorofluoromethane			1.35

Location ID	SG-23
Sample ID	SG-23
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,3-Butadiene			11.0
2,2,4-Trimethylpentane			2.72
Acetone			219
Benzene			16.8
Carbon Disulfide			19.5
Cyclohexane			3.55
Dichlorodifluoromethane			2.59
Ethylbenzene			3.26
Heptane			19.9
Isopropanol			5.30
m,p-Xylene			26.8
Methyl Ethyl Ketone (2-Butanone)			5.82
N-Heptane			11.5
N-Hexane			1.72
Toluene			13.1
Trichlorofluoromethane			1.37

Location ID	SG-24
Sample ID	SG-24
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,3-Butadiene			2.29
Acetone			3.27
Benzene			3.95
Carbon Disulfide			2.16
Chloromethane			0.684
Cyclohexane			2.29
Dichlorodifluoromethane			3.26
Ethylbenzene			3.81
Isopropanol			16.9
m,p-Xylene			5.38
Methyl Ethyl Ketone (2-Butanone)			26.8
N-Heptane			5.82
N-Hexane			11.5
O-Xylene (1,2-Dimethylbenzene)			5.02
Toluene			13.1
Trichlorofluoromethane			1.37

Location ID	SG-25
Sample ID	SG-25
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,1,1-Trichloroethane	100		4.00
1,2,4-Trimethylbenzene			2.98
1,3,5-Trimethylbenzene (Mesitylene)			1.25
1,3-Butadiene			30.8
2,2,4-Trimethylpentane			3.39
2-Hexanone			1.99
4-Ethyltoluene			1.30
Acetone			836
Benzene			35.1
Carbon Disulfide			12.4
Chloroform			1.22
Chloromethane			2.23
Cyclohexane			4.89
Dichlorodifluoromethane			2.19
Ethanol			36.1
Ethylbenzene			7.73
Isopropanol			12.3
m,p-Xylene			19.4
Methyl Ethyl Ketone (2-Butanone)			78.4
N-Heptane			16.6
N-Hexane			42.3
O-Xylene (1,2-Dimethylbenzene)			5.47
Styrene			2.03
Toluene			42.2
Trichlorofluoromethane			1.36

Location ID	SG-26
Sample ID	SG-26
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			9.84
1,3,5-Trimethylbenzene (Mesitylene)			2.48
1,3-Butadiene			9.71
2,2,4-Trimethylpentane			7.10
2-Hexanone			266
Acetone			49.9
Benzene			3.64
Carbon Disulfide			19.2
Cyclohexane			2.74
Dichlorodifluoromethane			2.45
Ethanol			2.47
Ethylbenzene			3.13
m,p-Xylene			11.9
Methyl Ethyl Ketone (2-Butanone)			210
N-Heptane			7.29
N-Hexane			11.4
O-Xylene (1,2-Dimethylbenzene)			3.43
Tetrachloroethylene (PCE)	190	30	1.78
Toluene			24.5
Trichlorofluoromethane			1.58

Location ID	SG-27
Sample ID	SG-27
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			13.4
1,3,5-Trimethylbenzene (Mesitylene)			3.84
1,3-Butadiene			10.4
2-Hexanone			89.8
Acetone			18.0
Carbon Disulfide			43.8
Chloromethane			2.33
Cyclohexane			5.16
Dichlorodifluoromethane			5.93
Ethanol			70.8
Ethylbenzene			8.47
Isopropanol			2.85
m,p-Xylene			19.1
Methyl Ethyl Ketone (2-Butanone)			10.2
N-Heptane			17.2
O-Xylene (1,2-Dimethylbenzene)			8.06
Tetrachloroethylene (PCE)	100	30	2.73
Toluene			41.5
Trichlorofluoromethane (TCE)	6	2	2.35

Location ID	SG-28
Sample ID	SG-28
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			12.8
1,3,5-Trimethylbenzene (Mesitylene)			3.35
1,3-Butadiene			8.92
2,2,4-Trimethylpentane			1.23
2-Hexanone			50.8
4-Ethyltoluene			2.73
Acetone			67.9
Benzene			9.52
Carbon Disulfide			10.8
Chloromethane			1.70
Cyclohexane			2.60
Dichlorodifluoromethane			2.60
Ethanol			58.8
Ethylbenzene			5.69
Isopropanol			2.23
m,p-Xylene			17.0
Methyl Ethyl Ketone (2-Butanone)			271
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)			2.49
Methylene Chloride	100	60	3.82
N-Heptane			10.8
N-Hexane			8.97
O-Xylene (1,2-Dimethylbenzene)			5.69
Styrene			8.05
Tetrachloroethylene (PCE)	100	30	2.03
Toluene			36.8
Trichlorofluoromethane			1.52
Vinyl Chloride	6		0.486

Location ID	SG-29
Sample ID	SG-29
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			2.71
1,3,5-Trimethylbenzene (Mesitylene)			1.00
1,3-Butadiene			2.75
2,2,4-Trimethylpentane			1.40
2-Hexanone			7.10
Acetone			266
Benzene			11.1
Carbon Disulfide			19.2
Chloromethane			0.690
Cyclohexane			2.65
Dichlorodifluoromethane			2.66
Ethanol			2.48
Ethylbenzene			3.47
m,p-Xylene			11.9
Methyl Ethyl Ketone (2-Butanone)			17.8
N-Heptane			6.64
N-Hexane			14.2
O-Xylene (1,2-Dimethylbenzene)			3.43
Styrene			1.04
Toluene			18.2
Trichlorofluoromethane			1.58

Location ID	SG-30
Sample ID	SG-30
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			2.56
1,3-Butadiene			< 2.21
2,2,4-Trimethylpentane			< 0.934 U
2-Hexanone			0.82
Benzene			0.82
Carbon Disulfide			1.48
Chloromethane			0.948
Dichlorodifluoromethane			5.74
Ethylbenzene			< 0.889 U
Isopropanol			1.39
m,p-Xylene			2.36
Methyl Ethyl Ketone (2-Butanone)			2.35
N-Heptane			< 0.80 U
N-Hexane			1.56
O-Xylene (1,2-Dimethylbenzene)			< 0.705 U
Toluene			2.66
Trichlorofluoromethane			1.93

Location ID	SG-90
Sample ID	DUP-SG-1
Sample Date	9/26/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			3.67
1,3-Butadiene			< 0.442 U
2,2,4-Trimethylpentane			1.39
2-Hexanone			0.82
Benzene			0.719
Carbon Disulfide			< 0.623 U
Chloromethane			0.948
Dichlorodifluoromethane			5.74
Ethylbenzene			< 0.889 U
Isopropanol			< 1.23 U
m,p-Xylene			2.36
Methyl Ethyl Ketone (2-Butanone)			< 1.47 U
N-Heptane			< 0.80 U
N-Hexane			< 0.705 U
O-Xylene (1,2-Dimethylbenzene)			2.66
Toluene			2.73
Trichlorofluoromethane			1.96

Location ID	SG-31
Sample ID	SG-31
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			17.2
1,3,5-Trimethylbenzene (Mesitylene)			15.8
1,3-Butadiene			4.56
1,3-Dichlorobenzene			3.08
2,2,4-Trimethylpentane			6.87
2-Hexanone			3.7
4-Ethyltoluene			9.95
Acetone			1,760
Benzene			9.94
Carbon Disulfide			1.81
Cyclohexane			2.64
Dichlorodifluoromethane			1.21
Ethanol			162
Ethylbenzene			7.38
Isopropanol			8.55
m,p-Xylene			25.9
Methyl Ethyl Ketone (2-Butanone)			140
N-Heptane			7.38
N-Hexane			11.5
O-Xylene (1,2-Dimethylbenzene)			11.9
Styrene			1.56
Tert-Butyl Alcohol			33
Tetrahydrofuran			27.2
Toluene			17.8
Trichlorofluoromethane			2.79

Location ID	SG-32
Sample ID	SG-32
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			4.72
1,3,5-Trimethylbenzene (Mesitylene)			1.23
1,3-Dichlorobenzene			11.4
2,2,4-Trimethylpentane			3.12
2-Hexanone			82.6
4-Ethyltoluene			3.24
Acetone			480
Benzene			3.58
Carbon Disulfide			1.73
Cyclohexane			2
Ethanol			1.39
Ethylbenzene			1.39
Isopropanol			45.2
m,p-Xylene			20
Methyl Ethyl Ketone (2-Butanone)			410
N-Heptane			4.59
N-Hexane			8.04
O-Xylene (1,2-Dimethylbenzene)			9.31
Toluene			16.4

Location ID	SG-33
Sample ID	SG-33
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			12.9
1,3,5-Trimethylbenzene (Mesitylene)			3.82
1,3-Butadiene			3.47
1,3-Dichlorobenzene			2.77
2-Hexanone			66.8
4-Ethyltoluene			2.24
Acetone			206
Benzene			6.58
Carbon Disulfide			1.66
Cyclohexane			1.98
Dichlorodifluoromethane			2.03
Ethanol			83.1
Ethylbenzene			4.19
Isopropanol			8.28
m,p-Xylene			15
Methyl Ethyl Ketone (2-Butanone)			286
Methylene Chloride	100	60	2.26
N-Heptane			7.54
N-Hexane			16.2
O-Xylene (1,2-Dimethylbenzene)			5.64
Tetrachloroethylene (PCE)	100	30	1.68
Toluene			17.7
Trichlorofluoromethane			1.83

Location ID	SG-34
Sample ID	SG-34
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			15.2
1,3,5-Trimethylbenzene (Mesitylene)			4.66
1,3-Butadiene			6.95
1,3-Dichlorobenzene			19.1
2,2,4-Trimethylpentane			3.52
2-Hexanone			35
4-Ethyltoluene			3.78
Acetone			1,140
Benzene			10.6
Bromodichloromethane			2.26
Carbon Disulfide			7.72
Chloroform			0.878
Chloroform			11.7
Chloromethane			1
Cyclohexane			1.72
Dichlorodifluoromethane			2.2
Ethanol			89.2
Ethylbenzene			5.59
Isopropanol			3.72
m,p-Xylene			19.5
Methyl Ethyl Ketone (2-Butanone)			168
Methylene Chloride	100	60	9.54
N-Heptane			7.34
N-Hexane			11.1
O-Xylene (1,2-Dimethylbenzene)			8.86
Styrene			0.92
Tetrachloroethylene (PCE)	100	30	2.2
Toluene			31.6
Trichlorofluoromethane			1.82

Location ID	SG-35
Sample ID	SG-35
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			3.81
1,3-Butadiene			3.47
1,3-Dichlorobenzene			2.77
2-Hexanone			66.8
4-Ethyltoluene			2.24
Acetone			206
Benzene			6.58
Carbon Disulfide			1.66
Cyclohexane			1.98
Dichlorodifluoromethane			2.03
Ethanol			83.1
Ethylbenzene			4.19
Isopropanol			8.28
m,p-Xylene			15
Methyl Ethyl Ketone (2-Butanone)			286
Methylene Chloride	100	60	2.26
N-Heptane			7.54
N-Hexane			16.2
O-Xylene (1,2-Dimethylbenzene)			5.64
Tetrachloroethylene (PCE)	100	30	1.68
Toluene			17.7
Trichlorofluoromethane			1.83

Location ID	SG-36
Sample ID	SG-36
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			4.72
1,3,5-Trimethylbenzene (Mesitylene)			1.23
1,3-Butadiene			11.4
2,2,4-Trimethylpentane			3.12
2-Hexanone			82.6
4-Ethyltoluene			3.24
Acetone			480
Benzene			3.58
Carbon Disulfide			1.73
Cyclohexane			2
Ethanol			1.39
Ethylbenzene			1.39
Isopropanol			45.2
m,p-Xylene			20
Methyl Ethyl Ketone (2-Butanone)			410
N-Heptane			4.59
N-Hexane			8.04
O-Xylene (1,2-Dimethylbenzene)			9.31
Toluene			16.4

Location ID	SG-37
Sample ID	SG-37
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			3.81
1,3,5-Trimethylbenzene (Mesitylene)			1.00
1,3-Butadiene			29.6
2-Hexanone			90.5
Acetone			382
Benzene			14.4
Carbon Disulfide			14.2
Cyclohexane			3.39
Dichlorodifluoromethane			2.03
Ethanol			1,160
Ethylbenzene			5.49
Isopropanol			2.23
m,p-Xylene			17.0
Methyl Ethyl Ketone (2-Butanone)			271
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)			2.49
Methylene Chloride	100	60	3.82
N-Heptane			10.8
N-Hexane			8.97
O-Xylene (1,2-Dimethylbenzene)			5.69
Styrene			8.05
Tetrachloroethylene (PCE)	100	30	2.03
Toluene			36.8
Trichlorofluoromethane			1.52
Vinyl Chloride	6		0.486

Location ID	SG-07
Sample ID	SG-7
Sample Date	9/29/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,3-Butadiene			5.41
2,2,4-Trimethylpentane			1.21
Acetone			9.17
Benzene			2.97
Carbon Disulfide			5.39
Chloroform			1.25
Dichlorodifluoromethane			2.24
m,p-Xylene			3.85
N-Heptane			1.73
N-Hexane			2.66
O-Xylene (1,2-Dimethylbenzene)			0.886
Tetrachloroethylene			4.48
Toluene			1.57

Location ID	SG-08
Sample ID	SG-8
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			1.59
1,3-Butadiene			6.86
2-Hexanone			1.98
Acetone			117
Benzene			14.2
Carbon Disulfide			3.95
Chloromethane			0.902
Cyclohexane			0.826
Dichlorodifluoromethane			1.89
Ethanol			12.2
Ethylbenzene			5.6
Isopropanol			2.48
m,p-Xylene			20.1
Methyl Ethyl Ketone (2-Butanone)			22.1
N-Heptane			5.78
N-Hexane			7.04
O-Xylene (1,2-Dimethylbenzene)			7.28
Toluene			10.9
Trichlorofluoromethane			1.21

Location ID	SG-09
Sample ID	SG-9
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			1.15
1,3-Butadiene			2.05
Acetone			62.7
Benzene			2.99
Carbon Disulfide			4.27
Dichlorodifluoromethane			1.97
Ethanol			2.59
Ethylbenzene			1.64
Isopropanol			1.83
m,p-Xylene			6.28
Methyl Ethyl Ketone (2-Butanone)			2.06
N-Heptane			2.83
N-Hexane			3.14
Toluene			7.42
Trichlorofluoromethane			1.42

Location ID	SG-10
Sample ID	SG-10
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			2.89
1,3-Butadiene			2.91
Acetone			3.72
Benzene			82.3
Carbon Disulfide			4.95
Chloromethane			2.99
Cyclohexane			2.46
Dichlorodifluoromethane			2.81
Ethanol			2.65
Ethylbenzene			5.6
Isopropanol			8.46
m,p-Xylene			3.5
Methyl Ethyl Ketone (2-Butanone)			4.37
N-Heptane			2.87
N-Hexane			2.83
Tetrachloroethylene (PCE)	100	30	3.02
Toluene			19.9
Trichlorofluoromethane			1.21

Location ID	SG-11
Sample ID	SG-11
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			2.42
1,3-Butadiene			0.781
Acetone			98.5
Benzene			11.8
Carbon Disulfide			11.9
Cyclohexane			1.41
Dichlorodifluoromethane			3.17
Ethanol			11.3
Ethylbenzene			0.899
Isopropanol			2.83
m,p-Xylene			3.82
Methyl Ethyl Ketone (2-Butanone)			7.93
N-Heptane			1.12
N-Hexane			1.98
O-Xylene (1,2-Dimethylbenzene)			1.12
Toluene			2.11

Location ID	SG-12
Sample ID	SG-12
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
Cyclohexane			10.1
N-Heptane			30.9
N-Hexane			19.5
O-Xylene (1,2-Dimethylbenzene)			54.3

Location ID	SG-13
Sample ID	SG-13
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,1,2,2-Tetrachloroethane			3.51
1,2,4-Trimethylbenzene			7.41
Ethanol			6.16
Benzene			1.01
Carbon Disulfide			1.34
Chloromethane			0.843
Dichlorodifluoromethane			2.68
Ethylbenzene			1.01
m,p-Xylene			3.44
N-Heptane			0.902
N-Hexane			1.32
O-Xylene (1,2-Dimethylbenzene)			1.19
Toluene			1.4
Trichlorofluoromethane			1.14

Location ID	SG-DUP-1
Sample ID	SG-DUP-1
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,1,2,2-Tetrachloroethane			< 0.983 U
1,2,4-Trimethylbenzene			6.64
Ethanol			< 0.639 U
Benzene			< 0.623 U
Carbon Disulfide			0.843
Chloromethane			0.913
Dichlorodifluoromethane			2.66
Ethylbenzene			< 0.869 U
m,p-Xylene			< 1.74 U
N-Heptane			< 0.82 U
N-Hexane			< 0.705 U
O-Xylene (1,2-Dimethylbenzene)			< 0.869 U
Toluene			< 0.754 U
Trichlorofluoromethane			1.21

Location ID	SG-14
Sample ID	SG-14
Sample Date	9/29/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			1.15
1,3-Butadiene			7.46
2-Hexanone			1.02
Acetone			58.6
Benzene			5.49
Carbon Disulfide			4.63
Dichlorodifluoromethane			2.35
Ethylbenzene			1.52
Isopropanol			2.3
m,p-Xylene			3.68
Methyl Ethyl Ketone (2-Butanone)			11.5
N-Heptane			3.29
N-Hexane			4.86
O-Xylene (1,2-Dimethylbenzene)			1.79
Toluene			5.82

Location ID	SG-04
Sample ID	SG4
Sample Date	4/4/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			3.72
1,3-Butadiene			6.75
2,2,4-Trimethylpentane			4.14
2-Hexanone			8.930
Benzene			3.80
Carbon Disulfide			6.84
Chloromethane			1.65
Cyclohexane			1.85
Dichlorodifluoromethane			2.47
Ethylbenzene			3.72
m,p-Xylene			7.46
Methyl Ethyl Ketone (2-Butanone)			10.5
N-Heptane			14.9
N-Hexane			1.92
O-Xylene (1,2-Dimethylbenzene)			3.72
Toluene			14.5
Trichlorofluoromethane			1.41

Location ID	SG-05
Sample ID	SG5
Sample Date	4/4/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,3-Butadiene			11.8
Benzene			6.49
Carbon Disulfide			10.4
Chloromethane			1.58
Methyl Ethyl Ketone (2-Butanone)			29.3
N-Heptane			13.1
N-Hexane			13.1
Toluene			8.82

Location ID	SG-06
Sample ID	SG-6
Sample Date	9/27/2017
Units	ug/m3

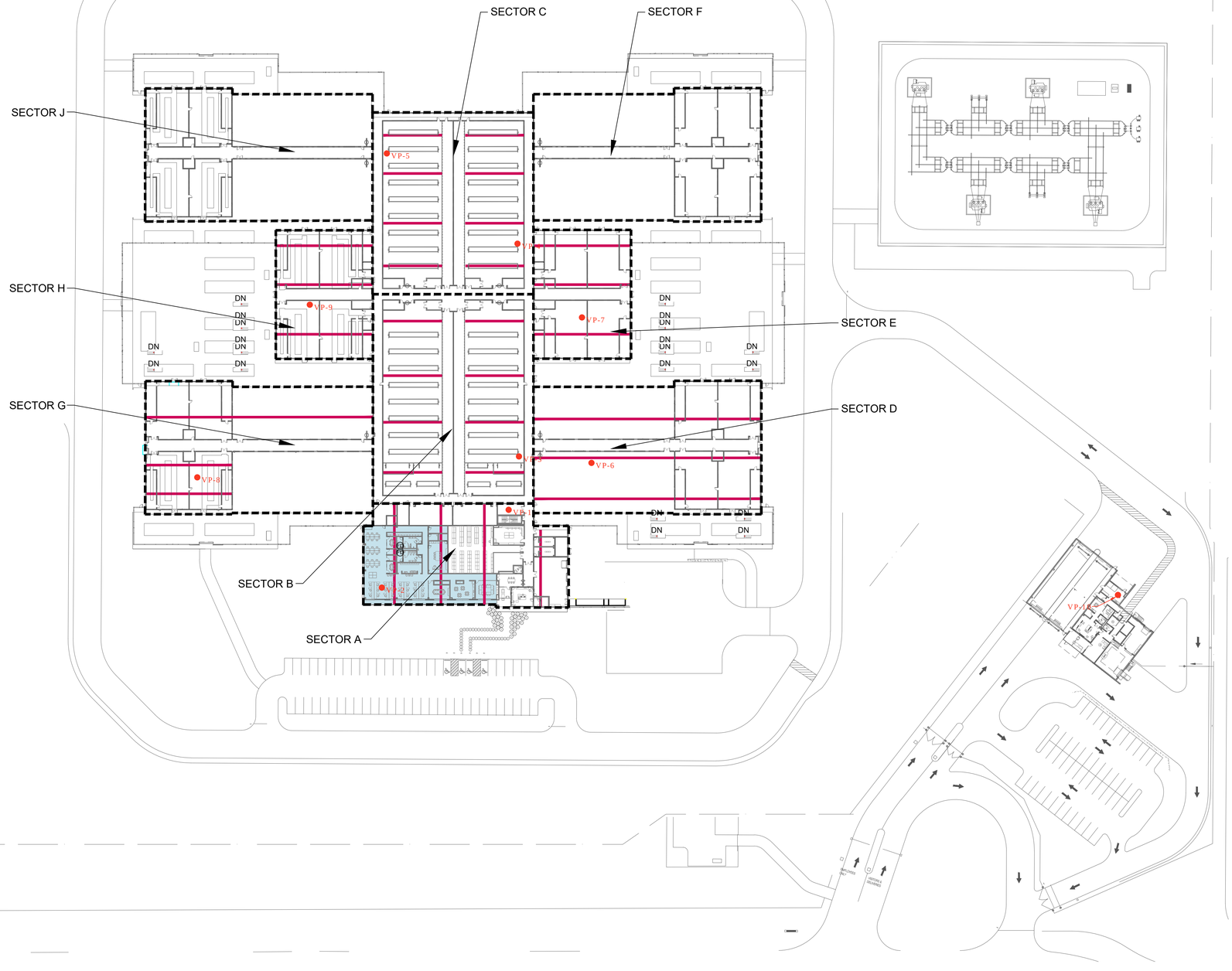
Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
Acetone			185
Chloroform			20.4
N-Heptane			13.7
N-Hexane			23.2
Toluene			16.9

Location ID	SG-16
Sample ID	SG-16
Sample Date	9/28/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			4.18
1,3,5-Trimethylbenzene (Mesitylene)			1.79
1,3-Butadiene			12
Acetone			1680
Benzene			10
Carbon Disulfide			10
Chloroform			4
Cyclohexane			6.75
Ethylbenzene			19.9
Isopropanol			40.8
m,p-Xylene			86.7
Methyl Ethyl Ketone (2-Butanone)			59.7
N-Heptane			7.54
N-Hexane			14.9
O-Xylene (1,2-Dimethylbenzene)			7.04
Toluene			26.2

Location ID	SG-15
Sample ID	SG-15
Sample Date	9/25/2017
Units	ug/m3

Analyte	NYS Sol VI	NYSDOH AGV	
VOCs			NE
1,2,4-Trimethylbenzene			2.78
1,3-Butadiene			3.3
Acetone			134
Benzene			2.85
Carbon Disulfide			3
Cyclohexane			2



LEGEND:

- VP-1 — VAPOR MONITORING POINT
- SECTOR BOUNDARY
- LATERALS TO BE CONNECTED BETWEEN HEADER PIPE AND VENT PIPE BELOW SLAB. LOCATION OF THE VENT PIPE TO BE FINALIZED BY THE PROJECT ARCHITECT. VENT PIPES TO EXIT THE ROOF WITH A GOOSE NECK ON TOP. LATERALS TO BE CONSTRUCTED OF 3" SCHEDULE 40 PVC CASING
- AREAS OF NORMALLY OCCUPIED SPACES

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 12/5/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300
2. REFER TO FOR THE EXACT LOCATION OF THE HEADER AND LATERAL PIPING, AND VAPOR MONITORING POINTS.
3. REFER TO FIGURE 2 FOR SPECIFICATIONS AND INSTRUCTION ON INSTALLATION OF VAPOR BARRIER.
4. GZA BELIEVES VAPOR BARRIER WILL BE SUFFICIENT TO PREVENT ANY POTENTIAL VAPOR INTRUSION (IF ANY) INTO THE BUILDING. PASSIVE SUB-SLAB VENTING SYSTEM IS BEING PLACED AS A PRO-ACTIVE MEASURE, TO PREVENT FUTURE DISRUPTIONS TO THE OPERATIONS IF ANY EXCEEDANCES ARE ENCOUNTERED.
5. BASED UPON THE CURRENT SOIL GAS SAMPLING RESULTS IT IS UNLIKELY THE PASSIVE SUB-SLAB VENTING SYSTEM WILL BE RETROFITTED TO AN ACTIVE SYSTEM.
6. IF IT IS DEEMED NECESSARY TO CONVERT PASSIVE TO AN ACTIVE SYSTEM THEN GZA WILL DESIGN AND SIZE APPROPRIATE BLOWERS TO OVERCOME THE NECESSARY FRICTION LOSS AND ACHIEVE A RADIUS OF INFLUENCE OF 25 TO 30 FEET.
7. BASED UPON THE AVAILABLE SPACING IN A BUILDING SECTOR LATERAL PERFORATED PIPING RUNS ARE SPACED BETWEEN 50 AND 60 FEET ON CENTER IN THE DESIGN.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

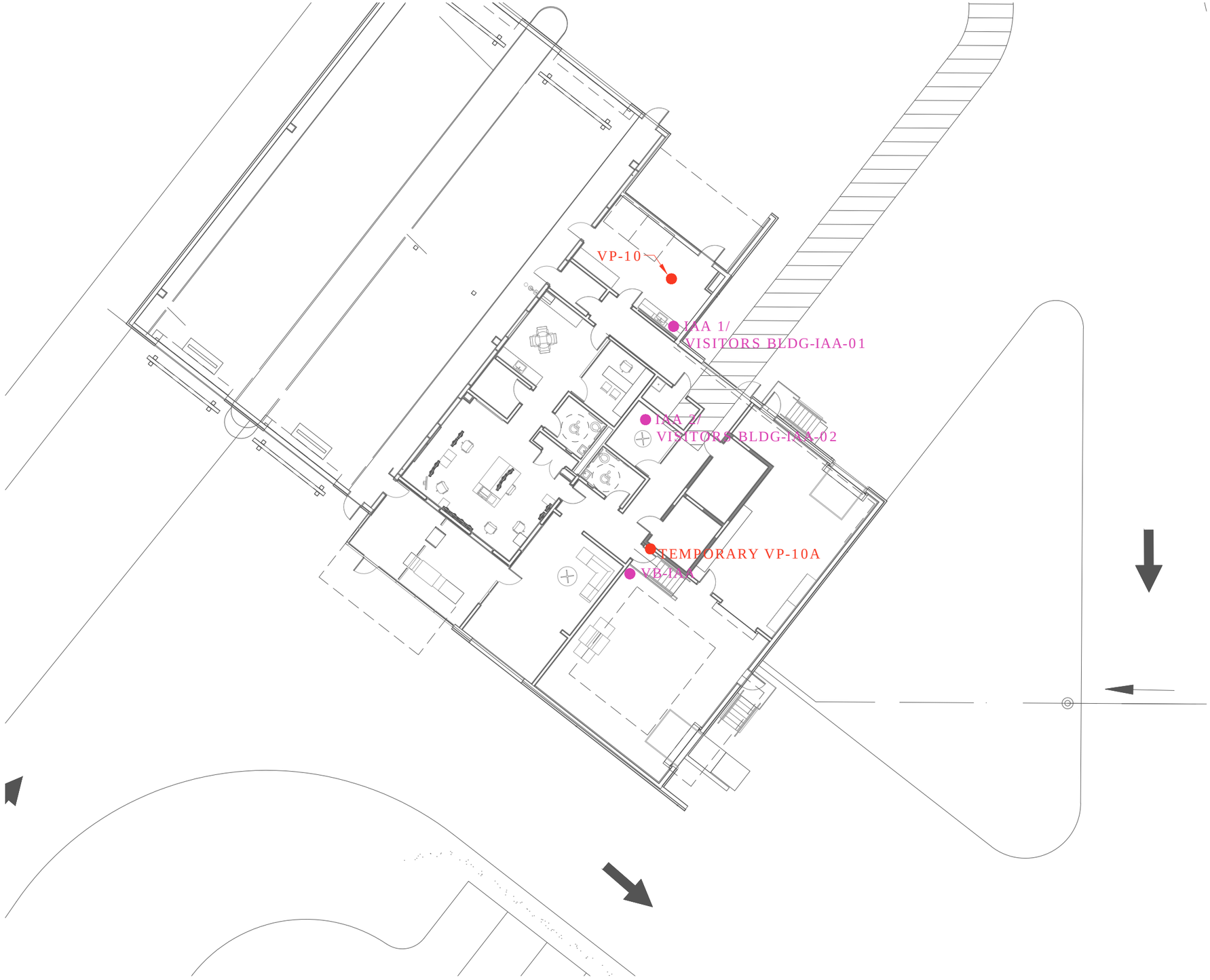
140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

POST-REMEDIATION VI INVESTIGATION
SAMPLE LOCATIONS - DECEMBER 4-5, 2019

PREPARED BY:	PREPARED FOR:
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	JP MORGAN CHASE AND COMPANY

PROJ MGR: MS	REVIEWED BY: BP	CHECKED BY: MS	FIGURE 6
DESIGNED BY: BP	DRAWN BY: LN	SCALE: NTS	
DATE: APRIL 2020	PROJECT NO. 12.0076555.02	REVISION NO.	SHEET NO.

©2018 - GZA GeoEnvironmental, Inc. - G:\76500's\12.0076555.00\FIGURES\CAD\SGS\[C002-SITE PLAN - LN.DWG FIGURE 1 SEPTEMBER 19, 2018 3:10 PM MIGUEL TORRES



LEGEND:

VP-10 ● VAPOR MONITORING POINT

IAA 1 ● INDOOR AIR SAMPLE

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 12/5/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300

NO.	ISSUE/DESCRIPTION	BY	DATE

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140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

POST-REMEDIATION VI INVESTIGATION SAMPLE LOCATIONS LATE DECEMBER 2019 - FEBRUARY 2020

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
JP MORGAN AND CHASE COMPANY

PROJ MGR: MS	REVIEWED BY: MS	CHECKED BY: DW	FIGURE 7
DESIGNED BY: LN	DRAWN BY: LN	SCALE: NTS	
DATE: APRIL 2020	PROJECT NO. 12.0076555.02	REVISION NO.	SHEET NO.

©2020 – GZA GeoEnvironmental, Inc. GZA–J:\76551 to 76600\76555, Rockland County Pysichiatric Center\Post-Remediation Soil Vapor Sampling\Comprehensive Report\Figures\WRC VP.dwg April 01, 2020 lindsay.nunes

APPENDICES

APPENDIX A – LIMITATIONS

Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

GZA GeoEnvironmental of NY
104 West 29th Street
10th Floor
New York, NY 10001
T: 212.594.8140
F: 212.279.8180
www.gza.com

LIMITATIONS

The following Limitations are in reference to the Remedial Investigation Report-Remedial Action Work Plan, produced and provided at the request of the JPMorgan Chase Bank (JPMC), National Association 10 South Dearborn, Chicago, Illinois 60603, prepared for the property located at the RPC - Core Area Site, 140 Old Orangeburg Road, Orangeburg, New York (the Site).

1. The conclusions and recommendations submitted in this report are based in part upon the data obtained from a limited number of soil samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation. If variations or other latent conditions then appear evident, it will be necessary to re-evaluate the recommendations of this report.

2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.

3. Water level readings have been made in the test pits, borings, and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

4. Where quantitative laboratory 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.

5. The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data may be considered preliminary or "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA, and the conclusions and recommendations presented therein modified accordingly.

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6. Chemical analyses have been performed for specific parameters during the course of this study, as detailed in the text. It must be noted that additional constituents not searched for during the current study may be present in soil and groundwater at the site.

7. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with agreed upon Terms and Conditions.

8. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the data gathered during the course of the study. No other warranty, expressed 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 the study.

9.

Use of Report

10. This report has been prepared for the exclusive use of the **JPMC** for specific application to the real property located at **RPC – Core Area Site, 140 Old Orangeburg Road, [parcel bounded by Convent Road/Third Avenue/Oak Street/First Avenue (Section 73.08, Block 1, Lot 1)], Orangetown, New York** (the Site), in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made.

11. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the **JPMC**. The work described in this report was carried out in accordance with agreed upon Terms and Conditions.

12. This study was performed in accordance with generally accepted environmental and geotechnical engineering practices. Additionally, GZA makes no warranty that the findings of the study will be approved by the overseeing regulatory authorities.

13. This report has been prepared for this project by GZA and is for planning purposes only. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to design considerations only.

APPENDIX B - LABORATORY REPORTS

ANALYTICAL REPORT

Lab Number:	L1710321
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Mindy Sayres
Phone:	(973) 774-3300
Project Name:	ROCKLAND PSYCHIATRIC CENTER
Project Number:	76555
Report Date:	04/11/17

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

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

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

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1710321-01	SG2	SOIL_VAPOR	140 OLD ORANGEBURG ROAD, ORANGEBURG, NY	04/04/17 10:17	04/04/17
L1710321-02	SG1	SOIL_VAPOR	140 OLD ORANGEBURG ROAD, ORANGEBURG, NY	04/04/17 10:50	04/04/17
L1710321-03	SG4	SOIL_VAPOR	140 OLD ORANGEBURG ROAD, ORANGEBURG, NY	04/04/17 13:43	04/04/17
L1710321-04	SG5	SOIL_VAPOR	140 OLD ORANGEBURG ROAD, ORANGEBURG, NY	04/04/17 14:33	04/04/17
L1710321-05	SG3	SOIL_VAPOR	140 OLD ORANGEBURG ROAD, ORANGEBURG, NY	04/04/17 15:35	04/04/17

Project Name:	ROCKLAND PSYCHIATRIC CENTER	**Lab Number:**	L1710321
Project Number:	76555	**Report Date:**	04/11/17

Case Narrative

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

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

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

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

HOLD POLICY

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

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

Project Name:	ROCKLAND PSYCHIATRIC CENTER	**Lab Number:**	L1710321
Project Number:	76555	**Report Date:**	04/11/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on April 3, 2017. The canister certification results are provided as an addendum.

Sample L1710321-01 and -02 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Sample L1710321-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Sample L1710321-03 and -04 The presence of Acetone could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.

Sample L1710321-04: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Sample L1710321-04 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound

Sample Receipt

The canister ID number for the sample designated SG1 (L1710321-02) is listed on the CoC as 388 but should be 383.

.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/11/17

AIR

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-01 D
Client ID: SG2
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/08/17 23:32
Analyst: MB

Date Collected: 04/04/17 10:17
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	518	2.00	--	2560	9.89	--		10
Chloromethane	ND	2.00	--	ND	4.13	--		10
Freon-114	ND	2.00	--	ND	14.0	--		10
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
1,3-Butadiene	4.55	2.00	--	10.1	4.42	--		10
Bromomethane	ND	2.00	--	ND	7.77	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
Ethanol	ND	50.0	--	ND	94.2	--		10
Vinyl bromide	ND	2.00	--	ND	8.74	--		10
Acetone	11.6	10.0	--	27.6	23.8	--		10
Trichlorofluoromethane	124	2.00	--	697	11.2	--		10
Isopropanol	ND	5.00	--	ND	12.3	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
Tertiary butyl Alcohol	ND	5.00	--	ND	15.2	--		10
Methylene chloride	ND	5.00	--	ND	17.4	--		10
3-Chloropropene	ND	2.00	--	ND	6.26	--		10
Carbon disulfide	ND	2.00	--	ND	6.23	--		10
Freon-113	ND	2.00	--	ND	15.3	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	ND	2.00	--	ND	8.09	--		10
Methyl tert butyl ether	ND	2.00	--	ND	7.21	--		10
2-Butanone	ND	5.00	--	ND	14.7	--		10
cis-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
Ethyl Acetate	ND	5.00	--	ND	18.0	--		10

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-01 D
Client ID: SG2
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 10:17
Date Received: 04/04/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	2.00	--	ND	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	6.15	2.00	--	21.7	7.05	--		10
1,1,1-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Benzene	2.00	2.00	--	6.39	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	ND	2.00	--	ND	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	ND	2.00	--	ND	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	2.10	2.00	--	8.61	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-01 D
Client ID: SG2
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 10:17
Date Received: 04/04/17
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	81		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-02
Client ID: SG1
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/09/17 00:04
Analyst: MB

Date Collected: 04/04/17 10:50
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.222	0.200	--	1.10	0.989	--		1
Chloromethane	0.225	0.200	--	0.465	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	4.36	0.200	--	9.65	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	12.0	1.00	--	28.5	2.38	--		1
Trichlorofluoromethane	0.209	0.200	--	1.17	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.16	0.200	--	3.61	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.99	0.500	--	8.82	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-02
Client ID: SG1
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 10:50
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.22	0.200	--	4.30	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.63	0.200	--	5.21	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.215	0.200	--	0.740	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.585	0.200	--	2.40	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	1.05	0.200	--	3.96	0.754	--		1
2-Hexanone	0.218	0.200	--	0.893	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.434	0.400	--	1.89	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-02
Client ID: SG1
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 10:50
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.225	0.200	--	0.977	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	0.545	0.200	--	2.68	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-03
Client ID: SG4
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/09/17 00:37
Analyst: MB

Date Collected: 04/04/17 13:43
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.580	0.200	--	2.87	0.989	--		1
Chloromethane	0.801	0.200	--	1.65	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	3.05	0.200	--	6.75	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	0.251	0.200	--	1.41	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.94	0.200	--	6.04	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.53	0.500	--	7.46	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-03
Client ID: SG4
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 13:43
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	4.24	0.200	--	14.9	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.19	0.200	--	3.80	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.537	0.200	--	1.85	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.930	0.200	--	4.34	0.934	--		1
Heptane	2.56	0.200	--	10.5	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	3.85	0.200	--	14.5	0.754	--		1
2-Hexanone	0.227	0.200	--	0.930	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.395	0.200	--	1.72	0.869	--		1
p/m-Xylene	1.36	0.400	--	5.91	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-03
Client ID: SG4
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 13:43
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.441	0.200	--	1.92	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	0.432	0.200	--	2.12	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	95		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	98		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-04 D
Client ID: SG5
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/09/17 01:07
Analyst: MB

Date Collected: 04/04/17 14:33
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	0.766	0.667	--	1.58	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
1,3-Butadiene	5.35	0.667	--	11.8	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
Ethanol	ND	16.7	--	ND	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	ND	3.33	--	ND	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	ND	1.67	--	ND	4.10	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Tertiary butyl Alcohol	ND	1.67	--	ND	5.06	--		3.333
Methylene chloride	ND	1.67	--	ND	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	3.34	0.667	--	10.4	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	6.88	1.67	--	20.3	4.93	--		3.333
cis-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-04 D
Client ID: SG5
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 14:33
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.667	--	ND	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	3.72	0.667	--	13.1	2.35	--		3.333
1,1,1-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Benzene	2.03	0.667	--	6.49	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	ND	0.667	--	ND	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	ND	0.667	--	ND	3.58	--		3.333
2,2,4-Trimethylpentane	ND	0.667	--	ND	3.12	--		3.333
Heptane	2.21	0.667	--	9.06	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	2.34	0.667	--	8.82	2.51	--		3.333
2-Hexanone	ND	0.667	--	ND	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	ND	0.667	--	ND	2.90	--		3.333
p/m-Xylene	ND	1.33	--	ND	5.78	--		3.333
Bromoform	ND	0.667	--	ND	6.90	--		3.333
Styrene	ND	0.667	--	ND	2.84	--		3.333

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-04 D
Client ID: SG5
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 14:33
Date Received: 04/04/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.667	--	ND	4.58	--		3.333
o-Xylene	ND	0.667	--	ND	2.90	--		3.333
4-Ethyltoluene	ND	0.667	--	ND	3.28	--		3.333
1,3,5-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
1,2,4-Trimethylbenzene	ND	0.667	--	ND	3.28	--		3.333
Benzyl chloride	ND	0.667	--	ND	3.45	--		3.333
1,3-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,4-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2,4-Trichlorobenzene	ND	0.667	--	ND	4.95	--		3.333
Hexachlorobutadiene	ND	0.667	--	ND	7.11	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-05
Client ID: SG3
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/09/17 01:40
Analyst: MB

Date Collected: 04/04/17 15:35
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	7.74	1.00	--	18.4	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.861	0.200	--	2.68	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.12	0.500	--	3.30	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-05
Client ID: SG3
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 15:35
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.01	0.200	--	3.56	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.34	0.200	--	4.28	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	1.14	0.200	--	6.13	1.07	--		1
2,2,4-Trimethylpentane	0.875	0.200	--	4.09	0.934	--		1
Heptane	1.02	0.200	--	4.18	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	8.56	0.200	--	32.3	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.988	0.200	--	4.29	0.869	--		1
p/m-Xylene	3.98	0.400	--	17.3	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555
Lab Number: L1710321
Report Date: 04/11/17

SAMPLE RESULTS

Lab ID: L1710321-05
Client ID: SG3
Sample Location: 140 OLD ORANGEBURG ROAD, ORANG
Date Collected: 04/04/17 15:35
Date Received: 04/04/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.44	0.200	--	6.25	0.869	--		1
4-Ethyltoluene	0.436	0.200	--	2.14	0.983	--		1
1,3,5-Trimethylbenzene	0.566	0.200	--	2.78	0.983	--		1
1,2,4-Trimethylbenzene	1.79	0.200	--	8.80	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	87		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER **Lab Number:** L1710321

Project Number: 76555 **Report Date:** 04/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/08/17 14:04

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): 01-05 Batch: WG992418-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER **Lab Number:** L1710321

Project Number: 76555 **Report Date:** 04/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/08/17 14:04

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): 01-05 Batch: WG992418-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: ROCKLAND PSYCHIATRIC CENTER **Lab Number:** L1710321

Project Number: 76555 **Report Date:** 04/11/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/08/17 14:04

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): 01-05 Batch: WG992418-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG992418-3								
Chlorodifluoromethane	94		-		70-130	-		
Propylene	103		-		70-130	-		
Propane	88		-		70-130	-		
Dichlorodifluoromethane	82		-		70-130	-		
Chloromethane	105		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		
Methanol	97		-		70-130	-		
Vinyl chloride	96		-		70-130	-		
1,3-Butadiene	101		-		70-130	-		
Butane	96		-		70-130	-		
Bromomethane	90		-		70-130	-		
Chloroethane	88		-		70-130	-		
Ethyl Alcohol	108		-		70-130	-		
Dichlorofluoromethane	88		-		70-130	-		
Vinyl bromide	88		-		70-130	-		
Acrolein	80		-		70-130	-		
Acetone	122		-		70-130	-		
Acetonitrile	94		-		70-130	-		
Trichlorofluoromethane	110		-		70-130	-		
iso-Propyl Alcohol	105		-		70-130	-		
Acrylonitrile	93		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER

Project Number: 76555

Lab Number: L1710321

Report Date: 04/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG992418-3								
Pentane	91		-		70-130	-		
Ethyl ether	98		-		70-130	-		
1,1-Dichloroethene	99		-		70-130	-		
tert-Butyl Alcohol	88		-		70-130	-		
Methylene chloride	111		-		70-130	-		
3-Chloropropene	113		-		70-130	-		
Carbon disulfide	83		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	95		-		70-130	-		
trans-1,2-Dichloroethene	84		-		70-130	-		
1,1-Dichloroethane	84		-		70-130	-		
Methyl tert butyl ether	79		-		70-130	-		
Vinyl acetate	107		-		70-130	-		
2-Butanone	87		-		70-130	-		
cis-1,2-Dichloroethene	80		-		70-130	-		
Ethyl Acetate	88		-		70-130	-		
Chloroform	89		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
2,2-Dichloropropane	81		-		70-130	-		
1,2-Dichloroethane	94		-		70-130	-		
n-Hexane	98		-		70-130	-		
Isopropyl Ether	84		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER

Project Number: 76555

Lab Number: L1710321

Report Date: 04/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG992418-3								
Ethyl-Tert-Butyl-Ether	88		-		70-130	-		
1,1,1-Trichloroethane	104		-		70-130	-		
1,1-Dichloropropene	91		-		70-130	-		
Benzene	89		-		70-130	-		
Carbon tetrachloride	117		-		70-130	-		
Cyclohexane	93		-		70-130	-		
Tertiary-Amyl Methyl Ether	82		-		70-130	-		
Dibromomethane	100		-		70-130	-		
1,2-Dichloropropane	97		-		70-130	-		
Bromodichloromethane	111		-		70-130	-		
1,4-Dioxane	95		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	98		-		70-130	-		
Methyl Methacrylate	123		-		70-130	-		
Heptane	104		-		70-130	-		
cis-1,3-Dichloropropene	103		-		70-130	-		
4-Methyl-2-pentanone	116		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	97		-		70-130	-		
Toluene	78		-		70-130	-		
1,3-Dichloropropane	81		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER

Project Number: 76555

Lab Number: L1710321

Report Date: 04/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG992418-3								
2-Hexanone	100		-		70-130	-		
Dibromochloromethane	95		-		70-130	-		
1,2-Dibromoethane	85		-		70-130	-		
Butyl Acetate	76		-		70-130	-		
Octane	70		-		70-130	-		
Tetrachloroethene	80		-		70-130	-		
1,1,1,2-Tetrachloroethane	81		-		70-130	-		
Chlorobenzene	82		-		70-130	-		
Ethylbenzene	80		-		70-130	-		
p/m-Xylene	83		-		70-130	-		
Bromoform	92		-		70-130	-		
Styrene	79		-		70-130	-		
1,1,2,2-Tetrachloroethane	88		-		70-130	-		
o-Xylene	87		-		70-130	-		
1,2,3-Trichloropropane	82		-		70-130	-		
Nonane (C9)	88		-		70-130	-		
Isopropylbenzene	81		-		70-130	-		
Bromobenzene	82		-		70-130	-		
o-Chlorotoluene	78		-		70-130	-		
n-Propylbenzene	80		-		70-130	-		
p-Chlorotoluene	80		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG992418-3								
4-Ethyltoluene	85		-		70-130	-		
1,3,5-Trimethylbenzene	84		-		70-130	-		
tert-Butylbenzene	84		-		70-130	-		
1,2,4-Trimethylbenzene	91		-		70-130	-		
Decane (C10)	84		-		70-130	-		
Benzyl chloride	94		-		70-130	-		
1,3-Dichlorobenzene	89		-		70-130	-		
1,4-Dichlorobenzene	89		-		70-130	-		
sec-Butylbenzene	82		-		70-130	-		
p-Isopropyltoluene	77		-		70-130	-		
1,2-Dichlorobenzene	89		-		70-130	-		
n-Butylbenzene	90		-		70-130	-		
1,2-Dibromo-3-chloropropane	98		-		70-130	-		
Undecane	92		-		70-130	-		
Dodecane (C12)	106		-		70-130	-		
1,2,4-Trichlorobenzene	103		-		70-130	-		
Naphthalene	90		-		70-130	-		
1,2,3-Trichlorobenzene	96		-		70-130	-		
Hexachlorobutadiene	100		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG992418-5 QC Sample: L1710739-02 Client ID: DUP Sample						
Dichlorodifluoromethane	0.306	0.339	ppbV	10		25
Chloromethane	0.535	0.600	ppbV	11		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	1.87	1.97	ppbV	5		25
Trichlorofluoromethane	0.232	0.234	ppbV	1		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	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: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG992418-5 QC Sample: L1710739-02 Client ID: DUP Sample						
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG992418-5 QC Sample: L1710739-02 Client ID: DUP Sample						
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: ROCKLAND PSYCHIATRIC CENTER

Lab Number: L1710321

Project Number: 76555

Report Date: 04/11/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1710321-01	SG2	0720	Flow 1	04/03/17	239137		-	-	-	Pass	144	77	61
L1710321-01	SG2	241	2.7L Can	04/03/17	239137	L1709618-03	Pass	-30.0	-3.3	-	-	-	-
L1710321-02	SG1	0185	Flow 2	04/03/17	239137		-	-	-	Pass	143	164	14
L1710321-02	SG1	383	2.7L Can	04/03/17	239137	L1709618-03	Pass	-30.0	-2.7	-	-	-	-
L1710321-03	SG4	0319	Flow 1	04/03/17	239137		-	-	-	Pass	141	162	14
L1710321-03	SG4	368	2.7L Can	04/03/17	239137	L1709618-03	Pass	-30.0	0.6	-	-	-	-
L1710321-04	SG5	0062	Flow 2	04/03/17	239137		-	-	-	Pass	137	76	57
L1710321-04	SG5	557	2.7L Can	04/03/17	239137	L1709618-03	Pass	-30.0	-4.0	-	-	-	-
L1710321-05	SG3	0288	Flow 2	04/03/17	239137		-	-	-	Pass	144	78	59
L1710321-05	SG3	2016	2.7L Can	04/03/17	239137	L1709618-03	Pass	-30.0	-7.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03
Client ID: CAN 506 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/17 10:57
Analyst: RY

Date Collected: 03/29/17 16:00
Date Received: 03/30/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03 Date Collected: 03/29/17 16:00

Client ID: CAN 506 SHELF 8 Date Received: 03/30/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03 Date Collected: 03/29/17 16:00

Client ID: CAN 506 SHELF 8 Date Received: 03/30/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1709618
Report Date: 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03
Client ID: CAN 506 SHELF 8
Sample Location:
Date Collected: 03/29/17 16:00
Date Received: 03/30/17
Field Prep: Not Specified

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03 Date Collected: 03/29/17 16:00

Client ID: CAN 506 SHELF 8 Date Received: 03/30/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03
Client ID: CAN 506 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/17 10:57
Analyst: RY

Date Collected: 03/29/17 16:00
Date Received: 03/30/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03 Date Collected: 03/29/17 16:00

Client ID: CAN 506 SHELF 8 Date Received: 03/30/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1709618

Project Number: CANISTER QC BAT **Report Date:** 04/11/17

Air Canister Certification Results

Lab ID: L1709618-03 Date Collected: 03/29/17 16:00

Client ID: CAN 506 SHELF 8 Date Received: 03/30/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	100		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140

Project Name: ROCKLAND PSYCHIATRIC CENTER
Project Number: 76555

Lab Number: L1710321
Report Date: 04/11/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**

Cooler
N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1710321-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1710321-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1710321-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1710321-04A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)
L1710321-05A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	ROCKLAND PSYCHIATRIC CENTER	**Lab Number:**	L1710321
Project Number:	76555	**Report Date:**	04/11/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

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

Data Qualifiers

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

Report Format: Data Usability Report

Project Name:	ROCKLAND PSYCHIATRIC CENTER	**Lab Number:**	L1710321
Project Number:	76555	**Report Date:**	04/11/17

Data Qualifiers

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

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

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

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

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

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

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

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

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

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

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

Report Format: Data Usability Report

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

Alpha Analytical
320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

AIR Chain-of-Custody - NJ

Date Rec'd in Lab: 4/5/17 | ALPHA Job#: L1710321

1 of 1 COCs

Client Contact Information

Company: G&A
Address: 55 Lane Road
City/State/Zip: Fairfield NJ 07004
Phone: 973-774-3314
FAX: 973-774-3300
Email: mindy.snyres@gen.com
Site Contact: Zion Stn
Site Contact Phone: 201-213-6178

Project Information

Project Name: Rockland Psychiatric Center
Project No: 76555
Site/Location: 1210 Old Orangeburg Road Orangeburg, NY
Project Manager: Mindy Snyres

Analysis Turn-Around Time

Standard (Specify): X
Rush (Specify):

NJ DEP Information

Bureau: Division: Contract No:

Report Information - Data Deliverables:

☐ FAX:
☐ ADEx ☐ Criteria Checker:
☐ EMail (standard pdf report)

Billing Information

☐ Same as Client Info PO #:

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note1)	Batch Cert ID (Note 1)	Analysis: TO-15	Analysis: EPA 3C	Matrix: Indoor/Ambient Air	Matrix: Soil Gas
10321.01	SG2	4/4/17	10:05	1017*	-28.07	-4.37			-30		0720	241	2.7	144	L1709618	X			X
.02	SG1	4/4/17	1035	1050	-29.37	-3.63			-30		0185	388		143	-03	X			X
.03	SG4	"	1317	1343	-29.38	-0.35			-30		0319	368		141		X			X
.04	SG5	"	1404	1433	-29.17	-8.4**			-30		0062	557		137		X			X
.05	SG3	"	1516	1535	-28.40	-8.41			-30		0288	2016		144		X			X

Custody Seals:
Outgoing Seal No: (refer to crate seal) 894
Incoming Seal No: (if applicable)

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start	48			
Stop	48			

Pressure (inches of Hg)

	Ambient	Maximum	Minimum	
Start	-29.6			
Stop	-29.6			

Individual Preparing Canister/Containers and Laboratory Canister Certification
Name: Paul Walukevich
Signature: Paul Walukevich Jr.

Footnotes:
(1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Special Instructions/QC Requirements & Comments:
* 1017 stop time for SG2
** -4.39 for SG5 Stop pressure

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
Samples Relinquished by: Zion Stn	Date/Time: 4/4/17 1617	Received by: John AAL	Date/Time: 4/4/17 16:20
Relinquished by: John AAL	Date/Time: 4/4/17 18:40	Received by: Paul Magella	Date/Time: 4/4/17 1825
Paul Magella 4/5/17 1:24		4/5/17 01:24	

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

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet

ANALYTICAL REPORT

Lab Number:	L1734219
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Zhan Shu
Phone:	(201) 744-0118
Project Name:	RPC
Project Number:	12.0076555.00
Report Date:	09/29/17

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1734219-01	SG-31	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 11:40	09/25/17
L1734219-02	SG-32	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 13:40	09/25/17
L1734219-03	SG-33	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 13:55	09/25/17
L1734219-04	SG-34	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 15:40	09/25/17
L1734219-05	SG-35	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 10:58	09/25/17
L1734219-06	SG-36	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 14:41	09/25/17
L1734219-07	SG-37	SOIL_VAPOR	ORANGEBURG, NY	09/25/17 15:22	09/25/17

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Case Narrative

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

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

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

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 18, 2017. The canister certification results are provided as an addendum.

L1734219-03, -05 and -07: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

L1734219-03, -05 and -07 results for Acetone should be considered estimated due to co-elution with a non-target peak.

L1734219-03 and -07 The presence of 2,2,4-Trimethylpentane could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.

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: 09/29/17

AIR

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-01
Client ID: SG-31
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/28/17 23:57
Analyst: MB

Date Collected: 09/25/17 11:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.244	0.200	--	1.21	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	2.06	0.200	--	4.56	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	86.0	5.00	--	162	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	44.7	1.00	--	106	2.38	--		1
Trichlorofluoromethane	0.492	0.200	--	2.76	1.12	--		1
Isopropanol	2.50	0.500	--	6.15	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	10.9	0.500	--	33.0	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.589	0.200	--	1.83	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	47.6	0.500	--	140	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-01
Client ID: SG-31
Sample Location: ORANGEBURG, NY

Date Collected: 09/25/17 11:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	9.21	0.500	--	27.2	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.28	0.200	--	8.04	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	3.11	0.200	--	9.94	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.594	0.200	--	2.04	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	1.47	0.200	--	6.87	0.934	--		1
Heptane	1.80	0.200	--	7.38	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	4.72	0.200	--	17.8	0.754	--		1
2-Hexanone	0.902	0.200	--	3.70	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.70	0.200	--	7.38	0.869	--		1
p/m-Xylene	5.96	0.400	--	25.9	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.367	0.200	--	1.56	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-01
Client ID: SG-31
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 11:40
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.64	0.200	--	11.5	0.869	--		1
4-Ethyltoluene	1.91	0.200	--	9.39	0.983	--		1
1,3,5-Trimethylbenzene	3.22	0.200	--	15.8	0.983	--		1
1,2,4-Trimethylbenzene	15.7	0.200	--	77.2	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	0.512	0.200	--	3.08	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	87		60-140

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-02
Client ID: SG-32
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 00:32
Analyst: MB

Date Collected: 09/25/17 13:40
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.405	0.200	--	2.00	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.86	0.200	--	4.11	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	101	5.00	--	190	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	39.8	1.00	--	94.5	2.38	--		1
Trichlorofluoromethane	0.374	0.200	--	2.10	1.12	--		1
Isopropanol	2.12	0.500	--	5.21	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	11.4	0.500	--	34.6	1.52	--		1
Methylene chloride	2.09	0.500	--	7.26	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.52	0.200	--	4.73	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	36.6	0.500	--	108	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-02
Client ID: SG-32
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 13:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	5.22	0.500	--	15.4	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.33	0.200	--	8.21	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.87	0.200	--	5.97	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.597	0.200	--	2.05	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	1.05	0.200	--	4.90	0.934	--		1
Heptane	1.03	0.200	--	4.22	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	2.75	0.200	--	10.4	0.754	--		1
2-Hexanone	0.955	0.200	--	3.91	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.767	0.200	--	3.33	0.869	--		1
p/m-Xylene	2.64	0.400	--	11.5	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-02
Client ID: SG-32
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 13:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.20	0.200	--	5.21	0.869	--		1
4-Ethyltoluene	0.719	0.200	--	3.53	0.983	--		1
1,3,5-Trimethylbenzene	1.30	0.200	--	6.39	0.983	--		1
1,2,4-Trimethylbenzene	6.03	0.200	--	29.6	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	0.312	0.200	--	1.88	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	86		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	84		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-03 D
Client ID: SG-33
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 01:06
Analyst: MB

Date Collected: 09/25/17 13:55
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.411	0.250	--	2.03	1.24	--		1.25
Chloromethane	ND	0.250	--	ND	0.516	--		1.25
Freon-114	ND	0.250	--	ND	1.75	--		1.25
Vinyl chloride	ND	0.250	--	ND	0.639	--		1.25
1,3-Butadiene	1.57	0.250	--	3.47	0.553	--		1.25
Bromomethane	ND	0.250	--	ND	0.971	--		1.25
Chloroethane	ND	0.250	--	ND	0.660	--		1.25
Ethanol	44.1	6.25	--	83.1	11.8	--		1.25
Vinyl bromide	ND	0.250	--	ND	1.09	--		1.25
Acetone	86.0	1.25	--	204	2.97	--		1.25
Trichlorofluoromethane	0.325	0.250	--	1.83	1.40	--		1.25
Isopropanol	3.37	0.625	--	8.28	1.54	--		1.25
1,1-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
Tertiary butyl Alcohol	ND	0.625	--	ND	1.89	--		1.25
Methylene chloride	0.651	0.625	--	2.26	2.17	--		1.25
3-Chloropropene	ND	0.250	--	ND	0.783	--		1.25
Carbon disulfide	2.32	0.250	--	7.22	0.779	--		1.25
Freon-113	ND	0.250	--	ND	1.92	--		1.25
trans-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
1,1-Dichloroethane	ND	0.250	--	ND	1.01	--		1.25
Methyl tert butyl ether	ND	0.250	--	ND	0.901	--		1.25
2-Butanone	95.0	0.625	--	280	1.84	--		1.25
cis-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
Ethyl Acetate	ND	0.625	--	ND	2.25	--		1.25

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-03 D
Client ID: SG-33
Sample Location: ORANGEBURG, NY

Date Collected: 09/25/17 13:55
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.250	--	ND	1.22	--		1.25
Tetrahydrofuran	ND	0.625	--	ND	1.84	--		1.25
1,2-Dichloroethane	ND	0.250	--	ND	1.01	--		1.25
n-Hexane	4.60	0.250	--	16.2	0.881	--		1.25
1,1,1-Trichloroethane	ND	0.250	--	ND	1.36	--		1.25
Benzene	2.06	0.250	--	6.58	0.799	--		1.25
Carbon tetrachloride	ND	0.250	--	ND	1.57	--		1.25
Cyclohexane	1.16	0.250	--	3.99	0.861	--		1.25
1,2-Dichloropropane	ND	0.250	--	ND	1.16	--		1.25
Bromodichloromethane	ND	0.250	--	ND	1.67	--		1.25
1,4-Dioxane	ND	0.250	--	ND	0.901	--		1.25
Trichloroethene	ND	0.250	--	ND	1.34	--		1.25
2,2,4-Trimethylpentane	ND	0.250	--	ND	1.17	--		1.25
Heptane	1.84	0.250	--	7.54	1.02	--		1.25
cis-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
4-Methyl-2-pentanone	ND	0.625	--	ND	2.56	--		1.25
trans-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
1,1,2-Trichloroethane	ND	0.250	--	ND	1.36	--		1.25
Toluene	4.71	0.250	--	17.7	0.942	--		1.25
2-Hexanone	16.3	0.250	--	66.8	1.02	--		1.25
Dibromochloromethane	ND	0.250	--	ND	2.13	--		1.25
1,2-Dibromoethane	ND	0.250	--	ND	1.92	--		1.25
Tetrachloroethene	0.389	0.250	--	2.64	1.70	--		1.25
Chlorobenzene	ND	0.250	--	ND	1.15	--		1.25
Ethylbenzene	0.964	0.250	--	4.19	1.09	--		1.25
p/m-Xylene	3.46	0.500	--	15.0	2.17	--		1.25
Bromoform	ND	0.250	--	ND	2.58	--		1.25
Styrene	ND	0.250	--	ND	1.06	--		1.25

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-03 D
Client ID: SG-33
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 13:55
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.250	--	ND	1.72	--		1.25
o-Xylene	1.77	0.250	--	7.69	1.09	--		1.25
4-Ethyltoluene	0.456	0.250	--	2.24	1.23	--		1.25
1,3,5-Trimethylbenzene	0.779	0.250	--	3.83	1.23	--		1.25
1,2,4-Trimethylbenzene	2.62	0.250	--	12.9	1.23	--		1.25
Benzyl chloride	ND	0.250	--	ND	1.29	--		1.25
1,3-Dichlorobenzene	0.460	0.250	--	2.77	1.50	--		1.25
1,4-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2,4-Trichlorobenzene	ND	0.250	--	ND	1.86	--		1.25
Hexachlorobutadiene	ND	0.250	--	ND	2.67	--		1.25

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	90		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	88		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-04
Client ID: SG-34
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 01:41
Analyst: MB

Date Collected: 09/25/17 15:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.444	0.200	--	2.20	0.989	--		1
Chloromethane	0.485	0.200	--	1.00	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	3.16	0.200	--	6.99	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	0.318	0.200	--	0.839	0.528	--		1
Ethanol	47.6	5.00	--	89.7	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	32.6	1.00	--	77.4	2.38	--		1
Trichlorofluoromethane	0.323	0.200	--	1.82	1.12	--		1
Isopropanol	1.86	0.500	--	4.57	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	2.86	0.500	--	9.94	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.48	0.200	--	7.72	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	56.8	0.500	--	168	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-04
Client ID: SG-34
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 15:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	2.40	0.200	--	11.7	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	3.16	0.200	--	11.1	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	3.31	0.200	--	10.6	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.440	0.200	--	1.51	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	0.338	0.200	--	2.26	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	0.756	0.200	--	3.53	0.934	--		1
Heptane	1.79	0.200	--	7.34	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	8.43	0.200	--	31.8	0.754	--		1
2-Hexanone	8.78	0.200	--	36.0	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.325	0.200	--	2.20	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.28	0.200	--	5.56	0.869	--		1
p/m-Xylene	4.49	0.400	--	19.5	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.216	0.200	--	0.920	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-04
Client ID: SG-34
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 15:40
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.04	0.200	--	8.86	0.869	--		1
4-Ethyltoluene	0.649	0.200	--	3.19	0.983	--		1
1,3,5-Trimethylbenzene	0.826	0.200	--	4.06	0.983	--		1
1,2,4-Trimethylbenzene	3.10	0.200	--	15.2	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	3.17	0.200	--	19.1	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	92		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-05
Client ID: SG-35
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 02:16
Analyst: MB

Date Collected: 09/25/17 10:58
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.461	0.200	--	2.28	0.989	--		1
Chloromethane	0.223	0.200	--	0.461	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	6.94	0.200	--	15.4	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	112	5.00	--	211	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	91.3	1.00	--	217	2.38	--		1
Trichlorofluoromethane	1.21	0.200	--	6.80	1.12	--		1
Isopropanol	5.51	0.500	--	13.5	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	7.11	0.500	--	21.6	1.52	--		1
Methylene chloride	0.548	0.500	--	1.90	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.40	0.200	--	4.36	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	23.8	0.500	--	70.2	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-05
Client ID: SG-35
Sample Location: ORANGEBURG, NY

Date Collected: 09/25/17 10:58
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	12.5	0.500	--	36.9	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	4.61	0.200	--	16.2	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	4.47	0.200	--	14.3	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	1.16	0.200	--	3.99	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	1.97	0.200	--	9.20	0.934	--		1
Heptane	2.45	0.200	--	10.0	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	6.90	0.200	--	26.0	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	2.01	0.200	--	8.73	0.869	--		1
p/m-Xylene	7.22	0.400	--	31.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.473	0.200	--	2.01	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-05
Client ID: SG-35
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 10:58
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.94	0.200	--	12.8	0.869	--		1
4-Ethyltoluene	2.20	0.200	--	10.8	0.983	--		1
1,3,5-Trimethylbenzene	3.43	0.200	--	16.9	0.983	--		1
1,2,4-Trimethylbenzene	16.5	0.200	--	81.1	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	0.247	0.200	--	1.49	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	93		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-06 D
Client ID: SG-36
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 02:49
Analyst: MB

Date Collected: 09/25/17 14:41
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.400	--	ND	1.98	--		2
Chloromethane	ND	0.400	--	ND	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	0.554	0.400	--	1.23	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	56.6	10.0	--	107	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	202	2.00	--	480	4.75	--		2
Trichlorofluoromethane	ND	0.400	--	ND	2.25	--		2
Isopropanol	18.4	1.00	--	45.2	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	0.554	0.400	--	1.73	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	149	1.00	--	439	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Ethyl Acetate	ND	1.00	--	ND	3.60	--		2

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-06 D
Client ID: SG-36
Sample Location: ORANGEBURG, NY

Date Collected: 09/25/17 14:41
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.400	--	ND	1.95	--		2
Tetrahydrofuran	ND	1.00	--	ND	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	2.28	0.400	--	8.04	1.41	--		2
1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Benzene	1.12	0.400	--	3.58	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	0.580	0.400	--	2.00	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	ND	0.400	--	ND	2.15	--		2
2,2,4-Trimethylpentane	0.668	0.400	--	3.12	1.87	--		2
Heptane	1.12	0.400	--	4.59	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	4.35	0.400	--	16.4	1.51	--		2
2-Hexanone	16.0	0.400	--	65.6	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	ND	0.400	--	ND	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	1.24	0.400	--	5.39	1.74	--		2
p/m-Xylene	4.60	0.800	--	20.0	3.47	--		2
Bromoform	ND	0.400	--	ND	4.14	--		2
Styrene	ND	0.400	--	ND	1.70	--		2

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-06 D
Client ID: SG-36
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 14:41
Date Received: 09/25/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--		2
o-Xylene	2.19	0.400	--	9.51	1.74	--		2
4-Ethyltoluene	0.660	0.400	--	3.24	1.97	--		2
1,3,5-Trimethylbenzene	0.960	0.400	--	4.72	1.97	--		2
1,2,4-Trimethylbenzene	3.40	0.400	--	16.7	1.97	--		2
Benzyl chloride	ND	0.400	--	ND	2.07	--		2
1,3-Dichlorobenzene	1.89	0.400	--	11.4	2.40	--		2
1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--		2
Hexachlorobutadiene	ND	0.400	--	ND	4.27	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	115		60-140
Bromochloromethane	109		60-140
chlorobenzene-d5	106		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-07 D
Client ID: SG-37
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 07:33
Analyst: MB

Date Collected: 09/25/17 15:22
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	ND	0.667	--	ND	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
1,3-Butadiene	13.4	0.667	--	29.6	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
Ethanol	60.9	16.7	--	115	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	165	3.33	--	392	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	16.6	1.67	--	40.8	4.10	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Tertiary butyl Alcohol	ND	1.67	--	ND	5.06	--		3.333
Methylene chloride	ND	1.67	--	ND	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	4.55	0.667	--	14.2	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	241	1.67	--	711	4.93	--		3.333
cis-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-07 D
Client ID: SG-37
Sample Location: ORANGEBURG, NY

Date Collected: 09/25/17 15:22
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.667	--	ND	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	9.89	0.667	--	34.9	2.35	--		3.333
1,1,1-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Benzene	4.50	0.667	--	14.4	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	1.16	0.667	--	3.99	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	ND	0.667	--	ND	3.58	--		3.333
2,2,4-Trimethylpentane	ND	0.667	--	ND	3.12	--		3.333
Heptane	2.64	0.667	--	10.8	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	4.65	0.667	--	17.5	2.51	--		3.333
2-Hexanone	23.3	0.667	--	95.5	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	1.07	0.667	--	4.65	2.90	--		3.333
p/m-Xylene	3.32	1.33	--	14.4	5.78	--		3.333
Bromoform	ND	0.667	--	ND	6.90	--		3.333
Styrene	ND	0.667	--	ND	2.84	--		3.333

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

SAMPLE RESULTS

Lab ID: L1734219-07 D
Client ID: SG-37
Sample Location: ORANGEBURG, NY
Date Collected: 09/25/17 15:22
Date Received: 09/25/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.667	--	ND	4.58	--		3.333
o-Xylene	1.74	0.667	--	7.56	2.90	--		3.333
4-Ethyltoluene	ND	0.667	--	ND	3.28	--		3.333
1,3,5-Trimethylbenzene	0.783	0.667	--	3.85	3.28	--		3.333
1,2,4-Trimethylbenzene	2.65	0.667	--	13.0	3.28	--		3.333
Benzyl chloride	ND	0.667	--	ND	3.45	--		3.333
1,3-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,4-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2,4-Trichlorobenzene	ND	0.667	--	ND	4.95	--		3.333
Hexachlorobutadiene	ND	0.667	--	ND	7.11	--		3.333

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	127		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	116		60-140

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/28/17 16:23

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): 01-07 Batch: WG1046790-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/28/17 16:23

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): 01-07 Batch: WG1046790-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734219
Report Date: 09/29/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/28/17 16:23

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): 01-07 Batch: WG1046790-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1046790-3								
Chlorodifluoromethane	98		-		70-130	-		
Propylene	111		-		70-130	-		
Propane	94		-		70-130	-		
Dichlorodifluoromethane	117		-		70-130	-		
Chloromethane	94		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	110		-		70-130	-		
Methanol	83		-		70-130	-		
Vinyl chloride	97		-		70-130	-		
1,3-Butadiene	94		-		70-130	-		
Butane	81		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	93		-		70-130	-		
Ethyl Alcohol	91		-		70-130	-		
Dichlorofluoromethane	96		-		70-130	-		
Vinyl bromide	103		-		70-130	-		
Acrolein	81		-		70-130	-		
Acetone	108		-		70-130	-		
Acetonitrile	77		-		70-130	-		
Trichlorofluoromethane	123		-		70-130	-		
iso-Propyl Alcohol	101		-		70-130	-		
Acrylonitrile	89		-		70-130	-		
Pentane	84		-		70-130	-		
Ethyl ether	84		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734219

Report Date: 09/29/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1046790-3								
1,1-Dichloroethene	102		-		70-130	-		
tert-Butyl Alcohol	92		-		70-130	-		
Methylene chloride	107		-		70-130	-		
3-Chloropropene	105		-		70-130	-		
Carbon disulfide	96		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		-		70-130	-		
trans-1,2-Dichloroethene	95		-		70-130	-		
1,1-Dichloroethane	98		-		70-130	-		
Methyl tert butyl ether	99		-		70-130	-		
Vinyl acetate	115		-		70-130	-		
2-Butanone	93		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		
Ethyl Acetate	94		-		70-130	-		
Chloroform	110		-		70-130	-		
Tetrahydrofuran	93		-		70-130	-		
2,2-Dichloropropane	101		-		70-130	-		
1,2-Dichloroethane	114		-		70-130	-		
n-Hexane	91		-		70-130	-		
Isopropyl Ether	87		-		70-130	-		
Ethyl-Tert-Butyl-Ether	87		-		70-130	-		
1,1,1-Trichloroethane	110		-		70-130	-		
1,1-Dichloropropene	93		-		70-130	-		
Benzene	91		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1046790-3								
Carbon tetrachloride	121		-		70-130	-		
Cyclohexane	90		-		70-130	-		
Tertiary-Amyl Methyl Ether	87		-		70-130	-		
Dibromomethane	93		-		70-130	-		
1,2-Dichloropropane	92		-		70-130	-		
Bromodichloromethane	107		-		70-130	-		
1,4-Dioxane	90		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
Methyl Methacrylate	109		-		70-130	-		
Heptane	94		-		70-130	-		
cis-1,3-Dichloropropene	104		-		70-130	-		
4-Methyl-2-pentanone	98		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	86		-		70-130	-		
1,3-Dichloropropane	84		-		70-130	-		
2-Hexanone	90		-		70-130	-		
Dibromochloromethane	104		-		70-130	-		
1,2-Dibromoethane	91		-		70-130	-		
Butyl Acetate	79		-		70-130	-		
Octane	80		-		70-130	-		
Tetrachloroethene	96		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734219

Report Date: 09/29/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1046790-3								
1,1,1,2-Tetrachloroethane	93		-		70-130	-		
Chlorobenzene	91		-		70-130	-		
Ethylbenzene	92		-		70-130	-		
p/m-Xylene	93		-		70-130	-		
Bromoform	104		-		70-130	-		
Styrene	91		-		70-130	-		
1,1,2,2-Tetrachloroethane	94		-		70-130	-		
o-Xylene	96		-		70-130	-		
1,2,3-Trichloropropane	87		-		70-130	-		
Nonane (C9)	87		-		70-130	-		
Isopropylbenzene	91		-		70-130	-		
Bromobenzene	86		-		70-130	-		
o-Chlorotoluene	88		-		70-130	-		
n-Propylbenzene	92		-		70-130	-		
p-Chlorotoluene	85		-		70-130	-		
4-Ethyltoluene	93		-		70-130	-		
1,3,5-Trimethylbenzene	100		-		70-130	-		
tert-Butylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	102		-		70-130	-		
Decane (C10)	90		-		70-130	-		
Benzyl chloride	98		-		70-130	-		
1,3-Dichlorobenzene	100		-		70-130	-		
1,4-Dichlorobenzene	100		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1046790-3								
sec-Butylbenzene	93		-		70-130	-		
p-Isopropyltoluene	90		-		70-130	-		
1,2-Dichlorobenzene	102		-		70-130	-		
n-Butylbenzene	100		-		70-130	-		
1,2-Dibromo-3-chloropropane	94		-		70-130	-		
Undecane	95		-		70-130	-		
Dodecane (C12)	98		-		70-130	-		
1,2,4-Trichlorobenzene	115		-		70-130	-		
Naphthalene	99		-		70-130	-		
1,2,3-Trichlorobenzene	103		-		70-130	-		
Hexachlorobutadiene	114		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1046790-5 QC Sample: L1734605-02 Client ID: DUP Sample						
Dichlorodifluoromethane	1.05	0.839	ppbV	22		25
Chloromethane	0.565	0.602	ppbV	6		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	205	200	ppbV	2		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	29.5	29.1	ppbV	1		25
Trichlorofluoromethane	18.4	18.0	ppbV	2		25
iso-Propyl Alcohol	45.2	44.0	ppbV	3		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	1.06	1.02	ppbV	4		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
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
2-Butanone	1.85	1.96	ppbV	6		25
Ethyl Acetate	0.959	0.870	ppbV	10		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1046790-5 QC Sample: L1734605-02 Client ID: DUP Sample						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	1.79	1.84	ppbV	3		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	2.79	2.80	ppbV	0		25
Benzene	1.27	1.27	ppbV	0		25
Cyclohexane	1.02	1.04	ppbV	2		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	0.248	0.237	ppbV	5		25
2,2,4-Trimethylpentane	0.875	0.856	ppbV	2		25
Heptane	0.993	0.905	ppbV	9		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	6.34	6.25	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.828	0.847	ppbV	2		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1046790-5 QC Sample: L1734605-02 Client ID: DUP Sample						
p/m-Xylene	3.18	3.28	ppbV	3		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	0.268	0.272	ppbV	1		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	1.14	1.10	ppbV	4		25
4-Ethyltoluene	0.267	0.225	ppbV	17		25
1,3,5-Trimethylbenzene	0.256	0.250	ppbV	2		25
1,2,4-Trimethylbenzene	0.927	0.929	ppbV	0		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734219

Report Date: 09/29/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1734219-01	SG-31	0571	SV200	09/18/17	248211		-	-	-	Pass	215	206	4
L1734219-01	SG-31	1051	6.0L Can	09/18/17	248211	L1731913-02	Pass	-29.9	-5.2	-	-	-	-
L1734219-02	SG-32	0708	SV200	09/18/17	248211		-	-	-	Pass	221	211	5
L1734219-02	SG-32	1532	6.0L Can	09/18/17	248211	L1731913-02	Pass	-28.5	-5.0	-	-	-	-
L1734219-03	SG-33	0885	SV200	09/18/17	248211		-	-	-	Pass	220	211	4
L1734219-03	SG-33	1687	6.0L Can	09/18/17	248211	L1731913-02	Pass	-29.7	-5.4	-	-	-	-
L1734219-04	SG-34	0693	SV200	09/18/17	248211		-	-	-	Pass	214	204	5
L1734219-04	SG-34	757	6.0L Can	09/18/17	248211	L1731189-02	Pass	-28.1	-6.3	-	-	-	-
L1734219-05	SG-35	0603	SV200	09/18/17	248211		-	-	-	Pass	222	220	1
L1734219-05	SG-35	615	6.0L Can	09/18/17	248211	L1731913-02	Pass	-29.7	-5.1	-	-	-	-
L1734219-06	SG-36	0654	SV200	09/18/17	248211		-	-	-	Pass	210	211	0
L1734219-06	SG-36	1867	6.0L Can	09/18/17	248211	L1732039-01	Pass	-29.8	-5.7	-	-	-	-
L1734219-07	SG-37	0690	SV200	09/18/17	248211		-	-	-	Pass	219	211	4
L1734219-07	SG-37	975	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.2	-5.8	-	-	-	-

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

Lab Number: L1731189
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02
Client ID: CAN 788 SHELF 51
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/06/17 21:41
Analyst: MB

Date Collected: 09/05/17 16:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731189

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02 Date Collected: 09/05/17 16:00

Client ID: CAN 788 SHELF 51 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731189

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02 Date Collected: 09/05/17 16:00

Client ID: CAN 788 SHELF 51 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1731189
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02
Client ID: CAN 788 SHELF 51
Sample Location:
Date Collected: 09/05/17 16:00
Date Received: 09/06/17
Field Prep: Not Specified

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731189

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02 Date Collected: 09/05/17 16:00

Client ID: CAN 788 SHELF 51 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731189
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02
Client ID: CAN 788 SHELF 51
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/06/17 21:41
Analyst: MB

Date Collected: 09/05/17 16:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731189
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02
Client ID: CAN 788 SHELF 51
Sample Location:
Date Collected: 09/05/17 16:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731189
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731189-02
Client ID: CAN 788 SHELF 51
Sample Location:
Date Collected: 09/05/17 16:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/07/17 16:35
Analyst: MB

Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01 Date Collected: 09/06/17 11:00

Client ID: CAN 2070 SHELF 55 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01 Date Collected: 09/06/17 11:00

Client ID: CAN 2070 SHELF 55 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1731352
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/07/17 16:35
Analyst: MB

Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
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: L1731352
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 15:24
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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
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:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

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

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02 Date Collected: 09/08/17 16:00

Client ID: CAN 1653 SHELF 47 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

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

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 15:24
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Propylene	ND	0.500	--	ND	0.861	--		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	0.050	--	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
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		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	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		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
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.020	--	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
2-Hexanone	ND	0.200	--	ND	0.820	--		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

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
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
1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 09/29/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734219
Report Date: 09/29/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1734219-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-06A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734219-07A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1734219
Project Number:	12.0076555.00	**Report Date:**	09/29/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1734219
Project Number:	12.0076555.00	**Report Date:**	09/29/17

Data Qualifiers

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 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:	RPC	**Lab Number:**	L1734219
Project Number:	12.0076555.00	**Report Date:**	09/29/17

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/25/17

ALPHA Job #: L1734219

Client Information

Client: G2A
Address: 55 Lane Rd #401
Fairfield NJ 07004
Phone: 973-774-3300
Fax: 973-774-3350
Email: zhan.shu@g2a.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: Orangeburg NY
Project #: 12-0076555.00
Project Manager: Zhan.Shu
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)
34219.01	SG-31	9/25/17	1114	1140	-29.47	-3.12	SV	AE	6L	1051	0571	X					
.02	SG-32		1316	1340	-28.86	-4.77		AE		1532	0708	X					
.03	SG-33		1330	1355	-29.81	-4.53		AE		1687	0885	X					
.04	SG-34		1515	1540	-27.46	-4.61		AE		757	0693	X					
.05	SG-35		1032	1058	-30.17	-4.28		AE		615	0603	X					
.06	SG-36		1415	1441	-30.17	-4.51		AE		1867	0654	X					
.07	SG-37		1458	1522	-28.86	-4.31		AE		975	0690	X					

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

Container Type: 6S

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	9/25/17 1705	Paul Mazella	9/25/17 1705
Paul Mazella	9/25/17 1830	[signature] 9/25 2200	
[signature]	9/26 0130	[signature]	09/26/17 0130
[signature]	09/26/17 0605	[signature]	9/26/17 06:05

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

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

ANALYTICAL REPORT

Lab Number:	L1734430
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Zhan Shu
Phone:	(201) 744-0118
Project Name:	RPC
Project Number:	120076555
Report Date:	10/03/17

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

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

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

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1734430-01	SG-23	SOIL_VAPOR	NY	09/26/17 15:47	09/26/17
L1734430-02	SG-24	SOIL_VAPOR	NY	09/26/17 16:03	09/26/17
L1734430-03	SG-25	SOIL_VAPOR	NY	09/26/17 15:31	09/26/17
L1734430-04	SG-26	SOIL_VAPOR	NY	09/26/17 11:54	09/26/17
L1734430-05	SG-27	SOIL_VAPOR	NY	09/26/17 10:36	09/26/17
L1734430-06	SG-28	SOIL_VAPOR	NY	09/26/17 11:10	09/26/17
L1734430-07	SG-29	SOIL_VAPOR	NY	09/26/17 14:56	09/26/17
L1734430-08	SG-30	SOIL_VAPOR	NY	09/26/17 14:10	09/26/17
L1734430-09	DUP-SG-1	SOIL_VAPOR	NY	09/26/17 14:10	09/26/17

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Case Narrative

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

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

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

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

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

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

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 18, 2017. The canister certification results are provided as an addendum.

L1734430-01 and -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

L1734430-01 through -08 results for Acetone should be considered estimated due to co-elution with a non-target peak.

L1734430-01 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound.

L1734430-02, -03, -04 and -06 results for 2,2,4-Trimethylpentane should be considered estimated due to co-elution with a non-target peak.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 10/03/17

AIR

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-01 D
Client ID: SG-23
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 21:32
Analyst: MB

Date Collected: 09/26/17 15:47
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.506	0.400	--	2.50	1.98	--		2
Chloromethane	ND	0.400	--	ND	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	2.29	0.400	--	5.07	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	ND	10.0	--	ND	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	23.4	2.00	--	55.6	4.75	--		2
Trichlorofluoromethane	ND	0.400	--	ND	2.25	--		2
Isopropanol	ND	1.00	--	ND	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	83.5	0.400	--	260	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	6.22	1.00	--	18.3	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Ethyl Acetate	ND	1.00	--	ND	3.60	--		2

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-01 D
Client ID: SG-23
Sample Location: NY

Date Collected: 09/26/17 15:47
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.400	--	ND	1.95	--		2
Tetrahydrofuran	ND	1.00	--	ND	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	1.50	0.400	--	5.29	1.41	--		2
1,1,1-Trichloroethane	0.444	0.400	--	2.42	2.18	--		2
Benzene	1.48	0.400	--	4.73	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	2.78	0.400	--	9.57	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	ND	0.400	--	ND	2.15	--		2
2,2,4-Trimethylpentane	ND	0.400	--	ND	1.87	--		2
Heptane	1.26	0.400	--	5.16	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	2.92	0.400	--	11.0	1.51	--		2
2-Hexanone	ND	0.400	--	ND	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	ND	0.400	--	ND	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	0.724	0.400	--	3.14	1.74	--		2
p/m-Xylene	2.26	0.800	--	9.82	3.47	--		2
Bromoform	ND	0.400	--	ND	4.14	--		2
Styrene	ND	0.400	--	ND	1.70	--		2

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-01 D
Client ID: SG-23
Sample Location: NY

Date Collected: 09/26/17 15:47
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--		2
o-Xylene	0.936	0.400	--	4.07	1.74	--		2
4-Ethyltoluene	ND	0.400	--	ND	1.97	--		2
1,3,5-Trimethylbenzene	ND	0.400	--	ND	1.97	--		2
1,2,4-Trimethylbenzene	0.650	0.400	--	3.20	1.97	--		2
Benzyl chloride	ND	0.400	--	ND	2.07	--		2
1,3-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--		2
Hexachlorobutadiene	ND	0.400	--	ND	4.27	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	83		60-140
chlorobenzene-d5	89		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-02
Client ID: SG-24
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 22:13
Analyst: MB

Date Collected: 09/26/17 16:03
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.445	0.200	--	2.20	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	4.95	0.200	--	11.0	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	92.0	1.00	--	219	2.38	--		1
Trichlorofluoromethane	0.244	0.200	--	1.37	1.12	--		1
Isopropanol	6.87	0.500	--	16.9	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	5.94	0.200	--	18.5	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	9.09	0.500	--	26.8	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-02
Client ID: SG-24
Sample Location: NY

Date Collected: 09/26/17 16:03
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	3.26	0.200	--	11.5	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	5.26	0.200	--	16.8	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	1.03	0.200	--	3.55	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.582	0.200	--	2.72	0.934	--		1
Heptane	1.42	0.200	--	5.82	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	3.47	0.200	--	13.1	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.407	0.200	--	1.77	0.869	--		1
p/m-Xylene	0.759	0.400	--	3.30	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-02
Client ID: SG-24
Sample Location: NY

Date Collected: 09/26/17 16:03
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.397	0.200	--	1.72	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	83		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-03
Client ID: SG-25
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 22:53
Analyst: MB

Date Collected: 09/26/17 15:31
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.443	0.200	--	2.19	0.989	--		1
Chloromethane	1.08	0.200	--	2.23	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	13.9	0.200	--	30.8	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	19.4	5.00	--	36.6	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	352	1.00	--	836	2.38	--		1
Trichlorofluoromethane	0.232	0.200	--	1.30	1.12	--		1
Isopropanol	20.6	0.500	--	50.6	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	3.98	0.200	--	12.4	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	24.9	0.500	--	73.4	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-03
Client ID: SG-25
Sample Location: NY

Date Collected: 09/26/17 15:31
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.249	0.200	--	1.22	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	12.0	0.200	--	42.3	0.705	--		1
1,1,1-Trichloroethane	0.733	0.200	--	4.00	1.09	--		1
Benzene	11.0	0.200	--	35.1	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	1.42	0.200	--	4.89	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.725	0.200	--	3.39	0.934	--		1
Heptane	4.06	0.200	--	16.6	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	11.2	0.200	--	42.2	0.754	--		1
2-Hexanone	0.204	0.200	--	0.836	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.78	0.200	--	7.73	0.869	--		1
p/m-Xylene	2.82	0.400	--	12.2	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.477	0.200	--	2.03	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-03
Client ID: SG-25
Sample Location: NY

Date Collected: 09/26/17 15:31
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.26	0.200	--	5.47	0.869	--		1
4-Ethyltoluene	0.224	0.200	--	1.10	0.983	--		1
1,3,5-Trimethylbenzene	0.254	0.200	--	1.25	0.983	--		1
1,2,4-Trimethylbenzene	0.607	0.200	--	2.98	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	86		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	82		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-04
Client ID: SG-26
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/29/17 23:33
Analyst: MB

Date Collected: 09/26/17 11:54
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.495	0.200	--	2.45	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	2.77	0.200	--	6.13	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	19.7	5.00	--	37.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	21.0	1.00	--	49.9	2.38	--		1
Trichlorofluoromethane	0.282	0.200	--	1.58	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	6.15	0.200	--	19.2	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	87.9	0.500	--	259	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-04
Client ID: SG-26
Sample Location: NY

Date Collected: 09/26/17 11:54
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	3.23	0.200	--	11.4	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.14	0.200	--	3.64	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.796	0.200	--	2.74	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.425	0.200	--	1.99	0.934	--		1
Heptane	1.78	0.200	--	7.29	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	6.54	0.200	--	24.6	0.754	--		1
2-Hexanone	10.4	0.200	--	42.6	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.264	0.200	--	1.79	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.844	0.200	--	3.67	0.869	--		1
p/m-Xylene	2.98	0.400	--	12.9	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-04
Client ID: SG-26
Sample Location: NY

Date Collected: 09/26/17 11:54
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.39	0.200	--	6.04	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	0.504	0.200	--	2.48	0.983	--		1
1,2,4-Trimethylbenzene	1.96	0.200	--	9.64	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	86		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-05 D
Client ID: SG-27
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 00:11
Analyst: MB

Date Collected: 09/26/17 10:36
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.20	0.400	--	5.93	1.98	--		2
Chloromethane	1.13	0.400	--	2.33	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	4.69	0.400	--	10.4	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	37.6	10.0	--	70.8	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	37.8	2.00	--	89.8	4.75	--		2
Trichlorofluoromethane	ND	0.400	--	ND	2.25	--		2
Isopropanol	1.16	1.00	--	2.85	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	14.7	0.400	--	45.8	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	85.5	1.00	--	252	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Ethyl Acetate	ND	1.00	--	ND	3.60	--		2

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-05 D
Client ID: SG-27
Sample Location: NY

Date Collected: 09/26/17 10:36
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.400	--	ND	1.95	--		2
Tetrahydrofuran	ND	1.00	--	ND	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	4.88	0.400	--	17.2	1.41	--		2
1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Benzene	5.65	0.400	--	18.0	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	1.50	0.400	--	5.16	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	0.438	0.400	--	2.35	2.15	--		2
2,2,4-Trimethylpentane	ND	0.400	--	ND	1.87	--		2
Heptane	2.49	0.400	--	10.2	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	11.0	0.400	--	41.5	1.51	--		2
2-Hexanone	11.9	0.400	--	48.8	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	0.402	0.400	--	2.73	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	1.49	0.400	--	6.47	1.74	--		2
p/m-Xylene	4.40	0.800	--	19.1	3.47	--		2
Bromoform	ND	0.400	--	ND	4.14	--		2
Styrene	ND	0.400	--	ND	1.70	--		2

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-05 D
Client ID: SG-27
Sample Location: NY

Date Collected: 09/26/17 10:36
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--		2
o-Xylene	2.04	0.400	--	8.86	1.74	--		2
4-Ethyltoluene	ND	0.400	--	ND	1.97	--		2
1,3,5-Trimethylbenzene	0.740	0.400	--	3.64	1.97	--		2
1,2,4-Trimethylbenzene	2.73	0.400	--	13.4	1.97	--		2
Benzyl chloride	ND	0.400	--	ND	2.07	--		2
1,3-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--		2
Hexachlorobutadiene	ND	0.400	--	ND	4.27	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	66		60-140
chlorobenzene-d5	77		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-06
Client ID: SG-28
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 00:50
Analyst: MB

Date Collected: 09/26/17 11:10
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.525	0.200	--	2.60	0.989	--		1
Chloromethane	0.857	0.200	--	1.77	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	0.272	0.200	--	0.695	0.511	--		1
1,3-Butadiene	4.03	0.200	--	8.92	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	31.2	5.00	--	58.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	28.6	1.00	--	67.9	2.38	--		1
Trichlorofluoromethane	0.270	0.200	--	1.52	1.12	--		1
Isopropanol	0.906	0.500	--	2.23	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	1.10	0.500	--	3.82	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	6.05	0.200	--	18.8	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	91.9	0.500	--	271	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-06
Client ID: SG-28
Sample Location: NY

Date Collected: 09/26/17 11:10
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	41.6	0.200	--	147	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	2.98	0.200	--	9.52	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	2.05	0.200	--	7.06	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.264	0.200	--	1.23	0.934	--		1
Heptane	14.6	0.200	--	59.8	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.607	0.500	--	2.49	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	9.77	0.200	--	36.8	0.754	--		1
2-Hexanone	12.4	0.200	--	50.8	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.299	0.200	--	2.03	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.31	0.200	--	5.69	0.869	--		1
p/m-Xylene	3.92	0.400	--	17.0	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.224	0.200	--	0.954	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-06
Client ID: SG-28
Sample Location: NY

Date Collected: 09/26/17 11:10
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.90	0.200	--	8.25	0.869	--		1
4-Ethyltoluene	0.556	0.200	--	2.73	0.983	--		1
1,3,5-Trimethylbenzene	0.681	0.200	--	3.35	0.983	--		1
1,2,4-Trimethylbenzene	2.60	0.200	--	12.8	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	85		60-140
Bromochloromethane	70		60-140
chlorobenzene-d5	79		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-07
Client ID: SG-29
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 01:30
Analyst: MB

Date Collected: 09/26/17 14:56
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.537	0.200	--	2.66	0.989	--		1
Chloromethane	0.334	0.200	--	0.690	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	4.39	0.200	--	9.71	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	112	1.00	--	266	2.38	--		1
Trichlorofluoromethane	0.282	0.200	--	1.58	1.12	--		1
Isopropanol	8.40	0.500	--	20.6	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.84	0.200	--	8.84	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	6.04	0.500	--	17.8	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-07
Client ID: SG-29
Sample Location: NY

Date Collected: 09/26/17 14:56
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	4.02	0.200	--	14.2	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	3.48	0.200	--	11.1	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.769	0.200	--	2.65	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	1.52	0.200	--	7.10	0.934	--		1
Heptane	1.62	0.200	--	6.64	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	3.78	0.200	--	14.2	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.572	0.200	--	2.48	0.869	--		1
p/m-Xylene	1.26	0.400	--	5.47	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.244	0.200	--	1.04	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-07
Client ID: SG-29
Sample Location: NY

Date Collected: 09/26/17 14:56
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.559	0.200	--	2.43	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	0.552	0.200	--	2.71	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	72		60-140
chlorobenzene-d5	81		60-140

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-08
Client ID: SG-30
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 02:10
Analyst: MB

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.16	0.200	--	5.74	0.989	--		1
Chloromethane	0.455	0.200	--	0.940	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.550	0.200	--	1.22	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	8.65	1.00	--	20.5	2.38	--		1
Trichlorofluoromethane	0.486	0.200	--	2.73	1.12	--		1
Isopropanol	0.565	0.500	--	1.39	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.474	0.200	--	1.48	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.798	0.500	--	2.35	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-08
Client ID: SG-30
Sample Location: NY

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.444	0.200	--	1.56	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.506	0.200	--	1.62	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.268	0.200	--	1.10	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	1.04	0.200	--	3.92	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.544	0.400	--	2.36	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-08
Client ID: SG-30
Sample Location: NY

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.242	0.200	--	1.05	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	0.520	0.200	--	2.56	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	85		60-140
Bromochloromethane	72		60-140
chlorobenzene-d5	81		60-140

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-09
Client ID: DUP-SG-1
Sample Location: NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 02:49
Analyst: MB

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.643	0.200	--	3.18	0.989	--		1
Chloromethane	0.518	0.200	--	1.07	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.42	1.00	--	15.3	2.38	--		1
Trichlorofluoromethane	0.354	0.200	--	1.99	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-09
Client ID: DUP-SG-1
Sample Location: NY

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.225	0.200	--	0.719	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.298	0.200	--	1.39	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	1.58	0.200	--	5.95	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.404	0.200	--	1.75	0.869	--		1
p/m-Xylene	1.45	0.400	--	6.30	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

SAMPLE RESULTS

Lab ID: L1734430-09
Client ID: DUP-SG-1
Sample Location: NY

Date Collected: 09/26/17 14:10
Date Received: 09/26/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.619	0.200	--	2.69	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	0.746	0.200	--	3.67	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	73		60-140
chlorobenzene-d5	81		60-140

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:18

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): 01-09 Batch: WG1047817-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:18

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): 01-09 Batch: WG1047817-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 120076555
Lab Number: L1734430
Report Date: 10/03/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:18

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): 01-09 Batch: WG1047817-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 Batch: WG1047817-3								
Chlorodifluoromethane	74		-		70-130	-		
Propylene	90		-		70-130	-		
Dichlorodifluoromethane	91		-		70-130	-		
Chloromethane	83		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	91		-		70-130	-		
Methanol	74		-		70-130	-		
Vinyl chloride	83		-		70-130	-		
1,3-Butadiene	97		-		70-130	-		
Butane	72		-		70-130	-		
Bromomethane	89		-		70-130	-		
Chloroethane	82		-		70-130	-		
Ethyl Alcohol	81		-		70-130	-		
Dichlorofluoromethane	75		-		70-130	-		
Vinyl bromide	90		-		70-130	-		
Acrolein	83		-		70-130	-		
Acetone	84		-		70-130	-		
Acetonitrile	71		-		70-130	-		
Trichlorofluoromethane	89		-		70-130	-		
iso-Propyl Alcohol	88		-		70-130	-		
Acrylonitrile	86		-		70-130	-		
Pentane	74		-		70-130	-		
Ethyl ether	74		-		70-130	-		
1,1-Dichloroethene	86		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 Batch: WG1047817-3								
tert-Butyl Alcohol	78		-		70-130	-		
Methylene chloride	92		-		70-130	-		
3-Chloropropene	89		-		70-130	-		
Carbon disulfide	93		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		
trans-1,2-Dichloroethene	86		-		70-130	-		
1,1-Dichloroethane	101		-		70-130	-		
Methyl tert butyl ether	102		-		70-130	-		
Vinyl acetate	122		-		70-130	-		
2-Butanone	104		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		
Ethyl Acetate	107		-		70-130	-		
Chloroform	100		-		70-130	-		
Tetrahydrofuran	106		-		70-130	-		
2,2-Dichloropropane	90		-		70-130	-		
1,2-Dichloroethane	93		-		70-130	-		
n-Hexane	94		-		70-130	-		
Isopropyl Ether	91		-		70-130	-		
Ethyl-Tert-Butyl-Ether	79		-		70-130	-		
1,1,1-Trichloroethane	95		-		70-130	-		
1,1-Dichloropropene	92		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 Batch: WG1047817-3								
Cyclohexane	95		-		70-130	-		
Tertiary-Amyl Methyl Ether	83		-		70-130	-		
Dibromomethane	88		-		70-130	-		
1,2-Dichloropropane	94		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	101		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
Methyl Methacrylate	110		-		70-130	-		
Heptane	97		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	97		-		70-130	-		
trans-1,3-Dichloropropene	87		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	114		-		70-130	-		
1,3-Dichloropropane	97		-		70-130	-		
2-Hexanone	109		-		70-130	-		
Dibromochloromethane	123		-		70-130	-		
1,2-Dibromoethane	112		-		70-130	-		
Butyl Acetate	107		-		70-130	-		
Octane	106		-		70-130	-		
Tetrachloroethene	113		-		70-130	-		
1,1,1,2-Tetrachloroethane	109		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 Batch: WG1047817-3								
Chlorobenzene	110		-		70-130	-		
Ethylbenzene	118		-		70-130	-		
p/m-Xylene	114		-		70-130	-		
Bromoform	128		-		70-130	-		
Styrene	117		-		70-130	-		
1,1,2,2-Tetrachloroethane	107		-		70-130	-		
o-Xylene	114		-		70-130	-		
1,2,3-Trichloropropane	95		-		70-130	-		
Nonane (C9)	92		-		70-130	-		
Isopropylbenzene	107		-		70-130	-		
Bromobenzene	98		-		70-130	-		
o-Chlorotoluene	103		-		70-130	-		
n-Propylbenzene	102		-		70-130	-		
p-Chlorotoluene	101		-		70-130	-		
4-Ethyltoluene	113		-		70-130	-		
1,3,5-Trimethylbenzene	110		-		70-130	-		
tert-Butylbenzene	106		-		70-130	-		
1,2,4-Trimethylbenzene	117		-		70-130	-		
Decane (C10)	93		-		70-130	-		
Benzyl chloride	112		-		70-130	-		
1,3-Dichlorobenzene	112		-		70-130	-		
1,4-Dichlorobenzene	112		-		70-130	-		
sec-Butylbenzene	102		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 Batch: WG1047817-3								
p-Isopropyltoluene	100		-		70-130	-		
1,2-Dichlorobenzene	112		-		70-130	-		
n-Butylbenzene	104		-		70-130	-		
1,2-Dibromo-3-chloropropane	100		-		70-130	-		
Undecane	100		-		70-130	-		
Dodecane (C12)	108		-		70-130	-		
1,2,4-Trichlorobenzene	115		-		70-130	-		
Naphthalene	109		-		70-130	-		
1,2,3-Trichlorobenzene	103		-		70-130	-		
Hexachlorobutadiene	112		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1047817-5 QC Sample: L1700010-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.493	0.471	ppbV	5		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	5.55	5.59	ppbV	1		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	43.0	43.4	ppbV	1		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	3.50	3.45	ppbV	1		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: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1047817-5 QC Sample: L1700010-01 Client ID: DUP Sample						
2-Butanone	11.2	11.3	ppbV	1		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	1.60	1.63	ppbV	2		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	3.39	3.44	ppbV	1		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	0.682	0.662	ppbV	3		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Methyl Methacrylate	ND	ND	ppbV	NC		25
Heptane	1.07	1.12	ppbV	5		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1047817-5 QC Sample: L1700010-01 Client ID: DUP Sample						
Toluene	5.31	5.19	ppbV	2		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	1.78	1.74	ppbV	2		25
p/m-Xylene	5.06	4.95	ppbV	2		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	2.17	2.08	ppbV	4		25
o-Chlorotoluene	ND	ND	ppbV	NC		25
4-Ethyltoluene	0.836	0.821	ppbV	2		25
1,3,5-Trimethylbenzene	1.01	0.979	ppbV	3		25
1,2,4-Trimethylbenzene	3.76	3.69	ppbV	2		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 120076555

Lab Number: L1734430

Report Date: 10/03/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1734430-01	SG-23	0672	sv200	09/18/17	248211		-	-	-	Pass	219	215	2
L1734430-01	SG-23	1823	6.0L Can	09/18/17	248211	L1731913-01	Pass	-29.9	-3.8	-	-	-	-
L1734430-02	SG-24	0888	SV200	09/18/17	248211		-	-	-	Pass	209	202	3
L1734430-02	SG-24	1599	6.0L Can	09/18/17	248211	L1731913-01	Pass	-29.8	-5.8	-	-	-	-
L1734430-03	SG-25	0668	SV200	09/18/17	248211		-	-	-	Pass	221	214	3
L1734430-03	SG-25	1631	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.8	-4.2	-	-	-	-
L1734430-03	SG-25	595	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.8	-5.3	-	-	-	-
L1734430-04	SG-26	0519	SV200	09/18/17	248211		-	-	-	Pass	219	214	2
L1734430-04	SG-26	1631	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.8	-4.2	-	-	-	-
L1734430-05	SG-27	0859	SV200	09/18/17	248211		-	-	-	Pass	218	211	3
L1734430-05	SG-27	1590	6.0L Can	09/18/17	248211	L1731913-01	Pass	-29.9	-5.0	-	-	-	-
L1734430-06	SG-28	0509	SV200	09/18/17	248211		-	-	-	Pass	221	212	4
L1734430-06	SG-28	590	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.9	-4.0	-	-	-	-
L1734430-07	SG-29	0664	SV200	09/18/17	248211		-	-	-	Pass	218	210	4
L1734430-07	SG-29	2099	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.9	-5.2	-	-	-	-

Project Name: RPC

Project Number: 120076555

Lab Number: L1734430

Report Date: 10/03/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1734430-08	SG-30	0858	SV200	09/18/17	248211		-	-	-	Pass	217	200	8
L1734430-08	SG-30	805	6.0L Can	09/18/17	248211	L1731352-01	Pass	-29.7	-3.6	-	-	-	-
L1734430-09	DUP-SG-1	0710	SV200	09/18/17	248211		-	-	-	Pass	219	215	2
L1734430-09	DUP-SG-1	972	6.0L Can	09/18/17	248211	L1731913-01	Pass	-29.9	-2.9	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/07/17 16:35
Analyst: MB

Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01 Date Collected: 09/06/17 11:00

Client ID: CAN 2070 SHELF 55 Date Received: 09/06/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/07/17 16:35
Analyst: MB

Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
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 **Lab Number:** L1731352

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01 Date Collected: 09/06/17 11:00

Client ID: CAN 2070 SHELF 55 Date Received: 09/06/17

Sample Location: 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
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1731352
Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731352-01
Client ID: CAN 2070 SHELF 55
Sample Location:
Date Collected: 09/06/17 11:00
Date Received: 09/06/17
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01
Client ID: CAN 1995 SHELF 46
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 14:49
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01 Date Collected: 09/08/17 16:00

Client ID: CAN 1995 SHELF 46 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
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
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:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01
Client ID: CAN 1995 SHELF 46
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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 (C9)	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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01 Date Collected: 09/08/17 16:00

Client ID: CAN 1995 SHELF 46 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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
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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01 Date Collected: 09/08/17 16:00

Client ID: CAN 1995 SHELF 46 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01
Client ID: CAN 1995 SHELF 46
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 14:49
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Propylene	ND	0.500	--	ND	0.861	--		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	0.050	--	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
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		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	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1

Project Name: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01 Date Collected: 09/08/17 16:00

Client ID: CAN 1995 SHELF 46 Date Received: 09/11/17

Sample Location: 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								
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		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
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.020	--	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
2-Hexanone	ND	0.200	--	ND	0.820	--		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

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/03/17

Air Canister Certification Results

Lab ID: L1731913-01
Client ID: CAN 1995 SHELF 46
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
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
1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140

Project Name: RPC
Project Number: 120076555

Lab Number: L1734430
Report Date: 10/03/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1734430-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-06A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-07A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-08A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734430-09A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1734430
Project Number:	120076555	**Report Date:**	10/03/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1734430
Project Number:	120076555	**Report Date:**	10/03/17

Data Qualifiers

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 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

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/27/17

ALPHA Job #: L1734430

Client Information

Client: GZA
Address: 55 Lane Rd #407
Fairfield NJ 07004
Phone: 973-774-3300
Fax:
Email: zhan.shu@gza.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: NY
Project #: 120076555
Project Manager: Zhan Shu
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)
34430-01	SG-23	9/26/17	1519	1547	-29.59	-2.59	SV	AE	6	1823	0672	X					
02	SG-24		1538	1603	-30.01	-4.48				1599	0888	X					
03	SG-25		1507	1531	-29.98	-4.41				595	0668	X					
04	SG-26		1128	1154	-30.29	-3.83				1631	0519	X					
05	SG-27		1012	1036	-28.83	-4.43				1590	0859	X					
06	SG-28		1045	1110	-29.56	-3.55				590	0509	X					
07	SG-29		1431	1456	-30.52	*				2099	0664	X					* Flow controller battery low
08	SG-30		1342	1410	-29.69	-1.54				805	0858	X					
09	DUP-SG-1		1342	1410	-29.86	-2.51				972	0710	X					

*SAMPLE MATRIX CODES

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

Container Type: CS

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:
Zhan Shu	9/26/17 1709	Jon Fauding ALPHA	9-26-17 1709
Jon Fauding	9/26/17 1845		9/26/17 2136
	9/27/17 0145		09/27/17 0145
	09/27/17 0515		9/27/17 0515

ANALYTICAL REPORT

Lab Number:	L1734616
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Zhan Shu
Phone:	(201) 744-0118
Project Name:	RPC
Project Number:	12007655502
Report Date:	10/04/17

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

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

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

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1734616-01	SG-17	SOIL_VAPOR	NEW YORK	09/27/17 10:26	09/27/17
L1734616-02	SG-19	SOIL_VAPOR	NEW YORK	09/27/17 10:48	09/27/17
L1734616-03	SG-20	SOIL_VAPOR	NEW YORK	09/27/17 13:07	09/27/17
L1734616-04	SG-21	SOIL_VAPOR	NEW YORK	09/27/17 12:27	09/27/17
L1734616-05	SG-6	SOIL_VAPOR	NEW YORK	09/27/17 13:27	09/27/17
L1734616-06	SG-22	SOIL_VAPOR	NEW YORK	09/27/17 16:00	09/27/17
L1734616-07	SG-18	SOIL_VAPOR	NEW YORK	09/27/17 16:17	09/27/17

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Case Narrative

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

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

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

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

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

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

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 18, 2017. The canister certification results are provided as an addendum.

L1734616-02, -05, and -06: The samples have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

L1734616-02 results for Acetone should be considered estimated due to co-elution with a non-target peak.

L1734616-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1734616-01 and 03 The presence of Acetone could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 10/04/17

AIR

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-01
Client ID: SG-17
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 00:28
Analyst: MB

Date Collected: 09/27/17 10:26
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.370	0.200	--	1.83	0.989	--		1
Chloromethane	0.331	0.200	--	0.684	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	9.47	0.200	--	21.0	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	0.241	0.200	--	1.35	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.27	0.200	--	3.95	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.591	0.500	--	1.74	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-01
Client ID: SG-17
Sample Location: NEW YORK

Date Collected: 09/27/17 10:26
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.443	0.200	--	2.16	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	4.29	0.200	--	15.1	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	5.01	0.200	--	16.0	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	2.85	0.200	--	9.81	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.997	0.200	--	4.66	0.934	--		1
Heptane	3.06	0.200	--	12.5	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	3.48	0.200	--	13.1	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.693	0.200	--	3.01	0.869	--		1
p/m-Xylene	1.86	0.400	--	8.08	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-01
Client ID: SG-17
Sample Location: NEW YORK
Date Collected: 09/27/17 10:26
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.41	0.200	--	6.12	0.869	--		1
4-Ethyltoluene	0.387	0.200	--	1.90	0.983	--		1
1,3,5-Trimethylbenzene	0.212	0.200	--	1.04	0.983	--		1
1,2,4-Trimethylbenzene	0.656	0.200	--	3.22	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	95		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-02 D
Client ID: SG-19
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 01:04
Analyst: MB

Date Collected: 09/27/17 10:48
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.670	0.500	--	3.31	2.47	--		2.5
Chloromethane	0.612	0.500	--	1.26	1.03	--		2.5
Freon-114	ND	0.500	--	ND	3.49	--		2.5
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
1,3-Butadiene	14.6	0.500	--	32.3	1.11	--		2.5
Bromomethane	ND	0.500	--	ND	1.94	--		2.5
Chloroethane	ND	0.500	--	ND	1.32	--		2.5
Ethanol	ND	12.5	--	ND	23.6	--		2.5
Vinyl bromide	ND	0.500	--	ND	2.19	--		2.5
Acetone	34.3	2.50	--	81.5	5.94	--		2.5
Trichlorofluoromethane	ND	0.500	--	ND	2.81	--		2.5
Isopropanol	ND	1.25	--	ND	3.07	--		2.5
1,1-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
Tertiary butyl Alcohol	ND	1.25	--	ND	3.79	--		2.5
Methylene chloride	ND	1.25	--	ND	4.34	--		2.5
3-Chloropropene	ND	0.500	--	ND	1.57	--		2.5
Carbon disulfide	4.66	0.500	--	14.5	1.56	--		2.5
Freon-113	ND	0.500	--	ND	3.83	--		2.5
trans-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
1,1-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
Methyl tert butyl ether	ND	0.500	--	ND	1.80	--		2.5
2-Butanone	5.39	1.25	--	15.9	3.69	--		2.5
cis-1,2-Dichloroethene	ND	0.500	--	ND	1.98	--		2.5
Ethyl Acetate	ND	1.25	--	ND	4.50	--		2.5

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-02 D
Client ID: SG-19
Sample Location: NEW YORK

Date Collected: 09/27/17 10:48
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.850	0.500	--	4.15	2.44	--		2.5
Tetrahydrofuran	ND	1.25	--	ND	3.69	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
n-Hexane	4.15	0.500	--	14.6	1.76	--		2.5
1,1,1-Trichloroethane	1.44	0.500	--	7.86	2.73	--		2.5
Benzene	10.4	0.500	--	33.2	1.60	--		2.5
Carbon tetrachloride	ND	0.500	--	ND	3.15	--		2.5
Cyclohexane	2.85	0.500	--	9.81	1.72	--		2.5
1,2-Dichloropropane	ND	0.500	--	ND	2.31	--		2.5
Bromodichloromethane	ND	0.500	--	ND	3.35	--		2.5
1,4-Dioxane	ND	0.500	--	ND	1.80	--		2.5
Trichloroethene	ND	0.500	--	ND	2.69	--		2.5
2,2,4-Trimethylpentane	ND	0.500	--	ND	2.34	--		2.5
Heptane	2.60	0.500	--	10.7	2.05	--		2.5
cis-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
4-Methyl-2-pentanone	ND	1.25	--	ND	5.12	--		2.5
trans-1,3-Dichloropropene	ND	0.500	--	ND	2.27	--		2.5
1,1,2-Trichloroethane	ND	0.500	--	ND	2.73	--		2.5
Toluene	11.1	0.500	--	41.8	1.88	--		2.5
2-Hexanone	ND	0.500	--	ND	2.05	--		2.5
Dibromochloromethane	ND	0.500	--	ND	4.26	--		2.5
1,2-Dibromoethane	ND	0.500	--	ND	3.84	--		2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--		2.5
Chlorobenzene	ND	0.500	--	ND	2.30	--		2.5
Ethylbenzene	1.78	0.500	--	7.73	2.17	--		2.5
p/m-Xylene	3.73	1.00	--	16.2	4.34	--		2.5
Bromoform	ND	0.500	--	ND	5.17	--		2.5
Styrene	ND	0.500	--	ND	2.13	--		2.5

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-02 D
Client ID: SG-19
Sample Location: NEW YORK
Date Collected: 09/27/17 10:48
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.500	--	ND	3.43	--		2.5
o-Xylene	2.45	0.500	--	10.6	2.17	--		2.5
4-Ethyltoluene	ND	0.500	--	ND	2.46	--		2.5
1,3,5-Trimethylbenzene	ND	0.500	--	ND	2.46	--		2.5
1,2,4-Trimethylbenzene	0.802	0.500	--	3.94	2.46	--		2.5
Benzyl chloride	ND	0.500	--	ND	2.59	--		2.5
1,3-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,4-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2-Dichlorobenzene	ND	0.500	--	ND	3.01	--		2.5
1,2,4-Trichlorobenzene	ND	0.500	--	ND	3.71	--		2.5
Hexachlorobutadiene	ND	0.500	--	ND	5.33	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	98		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-03 D
Client ID: SG-20
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 10:08
Analyst: MB

Date Collected: 09/27/17 13:07
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	32.5	--	ND	161	--		162.3
Chloromethane	ND	32.5	--	ND	67.1	--		162.3
Freon-114	ND	32.5	--	ND	227	--		162.3
Vinyl chloride	ND	32.5	--	ND	83.1	--		162.3
1,3-Butadiene	ND	32.5	--	ND	71.9	--		162.3
Bromomethane	ND	32.5	--	ND	126	--		162.3
Chloroethane	ND	32.5	--	ND	85.8	--		162.3
Ethanol	ND	812	--	ND	1530	--		162.3
Vinyl bromide	ND	32.5	--	ND	142	--		162.3
Acetone	ND	162.	--	ND	385	--		162.3
Trichlorofluoromethane	ND	32.5	--	ND	183	--		162.3
Isopropanol	ND	81.2	--	ND	200	--		162.3
1,1-Dichloroethene	ND	32.5	--	ND	129	--		162.3
Tertiary butyl Alcohol	ND	81.2	--	ND	246	--		162.3
Methylene chloride	ND	81.2	--	ND	282	--		162.3
3-Chloropropene	ND	32.5	--	ND	102	--		162.3
Carbon disulfide	ND	32.5	--	ND	101	--		162.3
Freon-113	ND	32.5	--	ND	249	--		162.3
trans-1,2-Dichloroethene	ND	32.5	--	ND	129	--		162.3
1,1-Dichloroethane	ND	32.5	--	ND	132	--		162.3
Methyl tert butyl ether	ND	32.5	--	ND	117	--		162.3
2-Butanone	ND	81.2	--	ND	239	--		162.3
cis-1,2-Dichloroethene	ND	32.5	--	ND	129	--		162.3
Ethyl Acetate	ND	81.2	--	ND	293	--		162.3

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-03 D
Client ID: SG-20
Sample Location: NEW YORK

Date Collected: 09/27/17 13:07
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	32.5	--	ND	159	--		162.3
Tetrahydrofuran	ND	81.2	--	ND	239	--		162.3
1,2-Dichloroethane	ND	32.5	--	ND	132	--		162.3
n-Hexane	12200	32.5	--	43000	115	--		162.3
1,1,1-Trichloroethane	ND	32.5	--	ND	177	--		162.3
Benzene	220	32.5	--	703	104	--		162.3
Carbon tetrachloride	ND	32.5	--	ND	204	--		162.3
Cyclohexane	ND	32.5	--	ND	112	--		162.3
1,2-Dichloropropane	ND	32.5	--	ND	150	--		162.3
Bromodichloromethane	ND	32.5	--	ND	218	--		162.3
1,4-Dioxane	ND	32.5	--	ND	117	--		162.3
Trichloroethene	ND	32.5	--	ND	175	--		162.3
2,2,4-Trimethylpentane	ND	32.5	--	ND	152	--		162.3
Heptane	4560	32.5	--	18700	133	--		162.3
cis-1,3-Dichloropropene	ND	32.5	--	ND	148	--		162.3
4-Methyl-2-pentanone	ND	81.2	--	ND	333	--		162.3
trans-1,3-Dichloropropene	ND	32.5	--	ND	148	--		162.3
1,1,2-Trichloroethane	ND	32.5	--	ND	177	--		162.3
Toluene	128	32.5	--	482	122	--		162.3
2-Hexanone	ND	32.5	--	ND	133	--		162.3
Dibromochloromethane	ND	32.5	--	ND	277	--		162.3
1,2-Dibromoethane	ND	32.5	--	ND	250	--		162.3
Tetrachloroethene	ND	32.5	--	ND	220	--		162.3
Chlorobenzene	ND	32.5	--	ND	150	--		162.3
Ethylbenzene	53.4	32.5	--	232	141	--		162.3
p/m-Xylene	ND	64.9	--	ND	282	--		162.3
Bromoform	ND	32.5	--	ND	336	--		162.3
Styrene	ND	32.5	--	ND	138	--		162.3

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-03 D
Client ID: SG-20
Sample Location: NEW YORK

Date Collected: 09/27/17 13:07
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	32.5	--	ND	223	--		162.3
o-Xylene	ND	32.5	--	ND	141	--		162.3
4-Ethyltoluene	ND	32.5	--	ND	160	--		162.3
1,3,5-Trimethylbenzene	ND	32.5	--	ND	160	--		162.3
1,2,4-Trimethylbenzene	ND	32.5	--	ND	160	--		162.3
Benzyl chloride	ND	32.5	--	ND	168	--		162.3
1,3-Dichlorobenzene	ND	32.5	--	ND	195	--		162.3
1,4-Dichlorobenzene	ND	32.5	--	ND	195	--		162.3
1,2-Dichlorobenzene	ND	32.5	--	ND	195	--		162.3
1,2,4-Trichlorobenzene	ND	32.5	--	ND	241	--		162.3
Hexachlorobutadiene	ND	32.5	--	ND	347	--		162.3

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	117		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	122		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-04
Client ID: SG-21
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 01:43
Analyst: MB

Date Collected: 09/27/17 12:27
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.511	0.200	--	2.53	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.13	0.200	--	2.50	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	81.1	1.00	--	193	2.38	--		1
Trichlorofluoromethane	0.221	0.200	--	1.24	1.12	--		1
Isopropanol	3.77	0.500	--	9.27	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.684	0.200	--	2.13	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	4.81	0.500	--	14.2	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-04
Client ID: SG-21
Sample Location: NEW YORK
Date Collected: 09/27/17 12:27
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.638	0.200	--	2.25	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.909	0.200	--	2.90	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.263	0.200	--	1.23	0.934	--		1
Heptane	0.342	0.200	--	1.40	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	0.756	0.200	--	2.85	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	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: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-04
Client ID: SG-21
Sample Location: NEW YORK
Date Collected: 09/27/17 12:27
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	94		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	99		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-05 D
Client ID: SG-6
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 03:34
Analyst: MB

Date Collected: 09/27/17 13:27
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	3.13	--	ND	15.5	--		15.67
Chloromethane	ND	3.13	--	ND	6.46	--		15.67
Freon-114	ND	3.13	--	ND	21.9	--		15.67
Vinyl chloride	ND	3.13	--	ND	8.00	--		15.67
1,3-Butadiene	ND	3.13	--	ND	6.92	--		15.67
Bromomethane	ND	3.13	--	ND	12.2	--		15.67
Chloroethane	ND	3.13	--	ND	8.26	--		15.67
Ethanol	ND	78.4	--	ND	148	--		15.67
Vinyl bromide	ND	3.13	--	ND	13.7	--		15.67
Acetone	77.8	15.7	--	185	37.3	--		15.67
Trichlorofluoromethane	ND	3.13	--	ND	17.6	--		15.67
Isopropanol	ND	7.84	--	ND	19.3	--		15.67
1,1-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
Tertiary butyl Alcohol	ND	7.84	--	ND	23.8	--		15.67
Methylene chloride	ND	7.84	--	ND	27.2	--		15.67
3-Chloropropene	ND	3.13	--	ND	9.80	--		15.67
Carbon disulfide	ND	3.13	--	ND	9.75	--		15.67
Freon-113	ND	3.13	--	ND	24.0	--		15.67
trans-1,2-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
1,1-Dichloroethane	ND	3.13	--	ND	12.7	--		15.67
Methyl tert butyl ether	ND	3.13	--	ND	11.3	--		15.67
2-Butanone	ND	7.84	--	ND	23.1	--		15.67
cis-1,2-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
Ethyl Acetate	ND	7.84	--	ND	28.3	--		15.67

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-05 D
Client ID: SG-6
Sample Location: NEW YORK

Date Collected: 09/27/17 13:27
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	4.17	3.13	--	20.4	15.3	--		15.67
Tetrahydrofuran	ND	7.84	--	ND	23.1	--		15.67
1,2-Dichloroethane	ND	3.13	--	ND	12.7	--		15.67
n-Hexane	6.58	3.13	--	23.2	11.0	--		15.67
1,1,1-Trichloroethane	ND	3.13	--	ND	17.1	--		15.67
Benzene	ND	3.13	--	ND	10.0	--		15.67
Carbon tetrachloride	ND	3.13	--	ND	19.7	--		15.67
Cyclohexane	ND	3.13	--	ND	10.8	--		15.67
1,2-Dichloropropane	ND	3.13	--	ND	14.5	--		15.67
Bromodichloromethane	ND	3.13	--	ND	21.0	--		15.67
1,4-Dioxane	ND	3.13	--	ND	11.3	--		15.67
Trichloroethene	ND	3.13	--	ND	16.8	--		15.67
2,2,4-Trimethylpentane	ND	3.13	--	ND	14.6	--		15.67
Heptane	3.35	3.13	--	13.7	12.8	--		15.67
cis-1,3-Dichloropropene	ND	3.13	--	ND	14.2	--		15.67
4-Methyl-2-pentanone	ND	7.84	--	ND	32.1	--		15.67
trans-1,3-Dichloropropene	ND	3.13	--	ND	14.2	--		15.67
1,1,2-Trichloroethane	ND	3.13	--	ND	17.1	--		15.67
Toluene	4.48	3.13	--	16.9	11.8	--		15.67
2-Hexanone	ND	3.13	--	ND	12.8	--		15.67
Dibromochloromethane	ND	3.13	--	ND	26.7	--		15.67
1,2-Dibromoethane	ND	3.13	--	ND	24.1	--		15.67
Tetrachloroethene	ND	3.13	--	ND	21.2	--		15.67
Chlorobenzene	ND	3.13	--	ND	14.4	--		15.67
Ethylbenzene	ND	3.13	--	ND	13.6	--		15.67
p/m-Xylene	ND	6.27	--	ND	27.2	--		15.67
Bromoform	ND	3.13	--	ND	32.4	--		15.67
Styrene	ND	3.13	--	ND	13.3	--		15.67

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-05 D
Client ID: SG-6
Sample Location: NEW YORK
Date Collected: 09/27/17 13:27
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	3.13	--	ND	21.5	--		15.67
o-Xylene	ND	3.13	--	ND	13.6	--		15.67
4-Ethyltoluene	ND	3.13	--	ND	15.4	--		15.67
1,3,5-Trimethylbenzene	ND	3.13	--	ND	15.4	--		15.67
1,2,4-Trimethylbenzene	ND	3.13	--	ND	15.4	--		15.67
Benzyl chloride	ND	3.13	--	ND	16.2	--		15.67
1,3-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,4-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,2-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,2,4-Trichlorobenzene	ND	3.13	--	ND	23.2	--		15.67
Hexachlorobutadiene	ND	3.13	--	ND	33.4	--		15.67

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	111		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	105		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-06 D
Client ID: SG-22
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 04:10
Analyst: MB

Date Collected: 09/27/17 16:00
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	3.13	--	ND	15.5	--		15.67
Chloromethane	ND	3.13	--	ND	6.46	--		15.67
Freon-114	ND	3.13	--	ND	21.9	--		15.67
Vinyl chloride	ND	3.13	--	ND	8.00	--		15.67
1,3-Butadiene	ND	3.13	--	ND	6.92	--		15.67
Bromomethane	ND	3.13	--	ND	12.2	--		15.67
Chloroethane	ND	3.13	--	ND	8.26	--		15.67
Ethanol	ND	78.4	--	ND	148	--		15.67
Vinyl bromide	ND	3.13	--	ND	13.7	--		15.67
Acetone	ND	15.7	--	ND	37.3	--		15.67
Trichlorofluoromethane	ND	3.13	--	ND	17.6	--		15.67
Isopropanol	ND	7.84	--	ND	19.3	--		15.67
1,1-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
Tertiary butyl Alcohol	ND	7.84	--	ND	23.8	--		15.67
Methylene chloride	ND	7.84	--	ND	27.2	--		15.67
3-Chloropropene	ND	3.13	--	ND	9.80	--		15.67
Carbon disulfide	ND	3.13	--	ND	9.75	--		15.67
Freon-113	ND	3.13	--	ND	24.0	--		15.67
trans-1,2-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
1,1-Dichloroethane	ND	3.13	--	ND	12.7	--		15.67
Methyl tert butyl ether	ND	3.13	--	ND	11.3	--		15.67
2-Butanone	ND	7.84	--	ND	23.1	--		15.67
cis-1,2-Dichloroethene	ND	3.13	--	ND	12.4	--		15.67
Ethyl Acetate	ND	7.84	--	ND	28.3	--		15.67

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-06 D
Client ID: SG-22
Sample Location: NEW YORK

Date Collected: 09/27/17 16:00
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	3.13	--	ND	15.3	--		15.67
Tetrahydrofuran	ND	7.84	--	ND	23.1	--		15.67
1,2-Dichloroethane	ND	3.13	--	ND	12.7	--		15.67
n-Hexane	ND	3.13	--	ND	11.0	--		15.67
1,1,1-Trichloroethane	ND	3.13	--	ND	17.1	--		15.67
Benzene	ND	3.13	--	ND	10.0	--		15.67
Carbon tetrachloride	ND	3.13	--	ND	19.7	--		15.67
Cyclohexane	ND	3.13	--	ND	10.8	--		15.67
1,2-Dichloropropane	ND	3.13	--	ND	14.5	--		15.67
Bromodichloromethane	ND	3.13	--	ND	21.0	--		15.67
1,4-Dioxane	ND	3.13	--	ND	11.3	--		15.67
Trichloroethene	ND	3.13	--	ND	16.8	--		15.67
2,2,4-Trimethylpentane	ND	3.13	--	ND	14.6	--		15.67
Heptane	ND	3.13	--	ND	12.8	--		15.67
cis-1,3-Dichloropropene	ND	3.13	--	ND	14.2	--		15.67
4-Methyl-2-pentanone	ND	7.84	--	ND	32.1	--		15.67
trans-1,3-Dichloropropene	ND	3.13	--	ND	14.2	--		15.67
1,1,2-Trichloroethane	ND	3.13	--	ND	17.1	--		15.67
Toluene	ND	3.13	--	ND	11.8	--		15.67
2-Hexanone	ND	3.13	--	ND	12.8	--		15.67
Dibromochloromethane	ND	3.13	--	ND	26.7	--		15.67
1,2-Dibromoethane	ND	3.13	--	ND	24.1	--		15.67
Tetrachloroethene	ND	3.13	--	ND	21.2	--		15.67
Chlorobenzene	ND	3.13	--	ND	14.4	--		15.67
Ethylbenzene	ND	3.13	--	ND	13.6	--		15.67
p/m-Xylene	ND	6.27	--	ND	27.2	--		15.67
Bromoform	ND	3.13	--	ND	32.4	--		15.67
Styrene	ND	3.13	--	ND	13.3	--		15.67

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-06 D
Client ID: SG-22
Sample Location: NEW YORK
Date Collected: 09/27/17 16:00
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	3.13	--	ND	21.5	--		15.67
o-Xylene	ND	3.13	--	ND	13.6	--		15.67
4-Ethyltoluene	ND	3.13	--	ND	15.4	--		15.67
1,3,5-Trimethylbenzene	ND	3.13	--	ND	15.4	--		15.67
1,2,4-Trimethylbenzene	ND	3.13	--	ND	15.4	--		15.67
Benzyl chloride	ND	3.13	--	ND	16.2	--		15.67
1,3-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,4-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,2-Dichlorobenzene	ND	3.13	--	ND	18.8	--		15.67
1,2,4-Trichlorobenzene	ND	3.13	--	ND	23.2	--		15.67
Hexachlorobutadiene	ND	3.13	--	ND	33.4	--		15.67

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	101		60-140

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-07
Client ID: SG-18
Sample Location: NEW YORK
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/30/17 02:22
Analyst: MB

Date Collected: 09/27/17 16:17
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.483	0.200	--	2.39	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.48	0.200	--	3.27	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	150	1.00	--	356	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	6.80	0.500	--	16.7	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	6.40	0.200	--	19.9	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.94	0.500	--	11.6	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-07
Client ID: SG-18
Sample Location: NEW YORK

Date Collected: 09/27/17 16:17
Date Received: 09/27/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.93	0.200	--	6.80	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.02	0.200	--	3.26	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	1.14	0.200	--	3.92	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.836	0.200	--	3.90	0.934	--		1
Heptane	1.11	0.200	--	4.55	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	2.02	0.200	--	7.61	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.209	0.200	--	1.42	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.540	0.200	--	2.35	0.869	--		1
p/m-Xylene	1.34	0.400	--	5.82	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

SAMPLE RESULTS

Lab ID: L1734616-07
Client ID: SG-18
Sample Location: NEW YORK
Date Collected: 09/27/17 16:17
Date Received: 09/27/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.577	0.200	--	2.51	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	0.466	0.200	--	2.29	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	108		60-140
chlorobenzene-d5	105		60-140

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:28

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): 01-07 Batch: WG1047139-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:28

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): 01-07 Batch: WG1047139-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 12007655502
Lab Number: L1734616
Report Date: 10/04/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/29/17 15:28

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): 01-07 Batch: WG1047139-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1047139-3								
Chlorodifluoromethane	85		-		70-130	-		
Propylene	95		-		70-130	-		
Propane	74		-		70-130	-		
Dichlorodifluoromethane	99		-		70-130	-		
Chloromethane	79		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		
Methanol	74		-		70-130	-		
Vinyl chloride	91		-		70-130	-		
1,3-Butadiene	93		-		70-130	-		
Butane	**66**	Q	-		70-130	-		
Bromomethane	84		-		70-130	-		
Chloroethane	82		-		70-130	-		
Ethyl Alcohol	75		-		70-130	-		
Dichlorofluoromethane	71		-		70-130	-		
Vinyl bromide	78		-		70-130	-		
Acrolein	80		-		70-130	-		
Acetone	77		-		70-130	-		
Acetonitrile	75		-		70-130	-		
Trichlorofluoromethane	77		-		70-130	-		
iso-Propyl Alcohol	72		-		70-130	-		
Acrylonitrile	78		-		70-130	-		
Pentane	**61**	Q	-		70-130	-		
Ethyl ether	**66**	Q	-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1047139-3								
1,1-Dichloroethene	85		-		70-130	-		
tert-Butyl Alcohol	74		-		70-130	-		
Methylene chloride	77		-		70-130	-		
3-Chloropropene	76		-		70-130	-		
Carbon disulfide	75		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	79		-		70-130	-		
trans-1,2-Dichloroethene	79		-		70-130	-		
1,1-Dichloroethane	79		-		70-130	-		
Methyl tert butyl ether	76		-		70-130	-		
Vinyl acetate	86		-		70-130	-		
2-Butanone	78		-		70-130	-		
cis-1,2-Dichloroethene	85		-		70-130	-		
Ethyl Acetate	83		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	78		-		70-130	-		
2,2-Dichloropropane	79		-		70-130	-		
1,2-Dichloroethane	85		-		70-130	-		
n-Hexane	86		-		70-130	-		
Isopropyl Ether	72		-		70-130	-		
Ethyl-Tert-Butyl-Ether	70		-		70-130	-		
1,1,1-Trichloroethane	85		-		70-130	-		
1,1-Dichloropropene	93		-		70-130	-		
Benzene	96		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1047139-3								
Carbon tetrachloride	89		-		70-130	-		
Cyclohexane	93		-		70-130	-		
Tertiary-Amyl Methyl Ether	77		-		70-130	-		
Dibromomethane	85		-		70-130	-		
1,2-Dichloropropane	87		-		70-130	-		
Bromodichloromethane	95		-		70-130	-		
1,4-Dioxane	91		-		70-130	-		
Trichloroethene	95		-		70-130	-		
2,2,4-Trimethylpentane	95		-		70-130	-		
Methyl Methacrylate	99		-		70-130	-		
Heptane	85		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	86		-		70-130	-		
trans-1,3-Dichloropropene	88		-		70-130	-		
1,1,2-Trichloroethane	102		-		70-130	-		
Toluene	84		-		70-130	-		
1,3-Dichloropropane	89		-		70-130	-		
2-Hexanone	82		-		70-130	-		
Dibromochloromethane	95		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		
Butyl Acetate	93		-		70-130	-		
Octane	80		-		70-130	-		
Tetrachloroethene	93		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1047139-3								
1,1,1,2-Tetrachloroethane	87		-		70-130	-		
Chlorobenzene	94		-		70-130	-		
Ethylbenzene	89		-		70-130	-		
p/m-Xylene	90		-		70-130	-		
Bromoform	102		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	102		-		70-130	-		
o-Xylene	93		-		70-130	-		
1,2,3-Trichloropropane	95		-		70-130	-		
Nonane (C9)	81		-		70-130	-		
Isopropylbenzene	95		-		70-130	-		
Bromobenzene	91		-		70-130	-		
o-Chlorotoluene	90		-		70-130	-		
n-Propylbenzene	87		-		70-130	-		
p-Chlorotoluene	90		-		70-130	-		
4-Ethyltoluene	99		-		70-130	-		
1,3,5-Trimethylbenzene	99		-		70-130	-		
tert-Butylbenzene	92		-		70-130	-		
1,2,4-Trimethylbenzene	104		-		70-130	-		
Decane (C10)	93		-		70-130	-		
Benzyl chloride	96		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	104		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12007655502

Lab Number: L1734616

Report Date: 10/04/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1047139-3								
sec-Butylbenzene	97		-		70-130	-		
p-Isopropyltoluene	86		-		70-130	-		
1,2-Dichlorobenzene	93		-		70-130	-		
n-Butylbenzene	99		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	103		-		70-130	-		
Dodecane (C12)	105		-		70-130	-		
1,2,4-Trichlorobenzene	118		-		70-130	-		
Naphthalene	113		-		70-130	-		
1,2,3-Trichlorobenzene	109		-		70-130	-		
Hexachlorobutadiene	112		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1047139-5 QC Sample: L1734418-02 Client ID: DUP Sample						
Propylene	ND	ND	ppbV	NC		25
Dichlorodifluoromethane	0.547	0.539	ppbV	1		25
Chloromethane	0.424	0.428	ppbV	1		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	15.7	15.6	ppbV	1		25
Trichlorofluoromethane	0.220	0.221	ppbV	0		25
iso-Propyl Alcohol	40.0	38.8	ppbV	3		25
1,1-Dichloroethene	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: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1047139-5 QC Sample: L1734418-02 Client ID: DUP Sample						
Vinyl acetate	ND	ND	ppbV	NC		25
2-Butanone	1.04	0.995	ppbV	4		25
cis-1,2-Dichloroethene	0.284	0.297	ppbV	4		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	3.48	3.37	ppbV	3		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	0.365	0.369	ppbV	1		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

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1047139-5 QC Sample: L1734418-02 Client ID: DUP Sample						
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.421	0.416	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	21.0	21.1	ppbV	0		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	0.204	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	0.239	0.246	ppbV	3		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1047139-5 QC Sample: L1734418-02 Client ID: DUP Sample						
Naphthalene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12007655502

Lab Number: L1734616

Report Date: 10/04/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1734616-01	SG-17	0861	SV200	09/18/17	248211		-	-	-	Pass	220	215	2
L1734616-01	SG-17	2066	6.0L Can	09/18/17	248211	L1731913-02	Pass	-29.9	-3.8	-	-	-	-
L1734616-02	SG-19	0513	SV200	09/18/17	248206		-	-	-	Pass	218	216	1
L1734616-02	SG-19	1610	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.9	-5.0	-	-	-	-
L1734616-03	SG-20	0812	SV200	09/18/17	248206		-	-	-	Pass	217	218	0
L1734616-03	SG-20	704	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.9	-4.7	-	-	-	-
L1734616-04	SG-21	0608	SV200	09/18/17	248206		-	-	-	Pass	221	218	1
L1734616-04	SG-21	1692	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.8	-4.7	-	-	-	-
L1734616-05	SG-6	0855	SV200	09/18/17	248206		-	-	-	Pass	218	214	2
L1734616-05	SG-6	2062	6.0L Can	09/18/17	248206	L1732039-01	Pass	-30.0	-3.8	-	-	-	-
L1734616-06	SG-22	0661	SV200	09/18/17	248206		-	-	-	Pass	214	210	2
L1734616-06	SG-22	764	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.9	-3.8	-	-	-	-
L1734616-07	SG-18	0670	SV200	09/18/17	248206		-	-	-	Pass	220	219	0
L1734616-07	SG-18	963	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.6	-2.0	-	-	-	-

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 15:24
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
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:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
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
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:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
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 (C9)	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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02 Date Collected: 09/08/17 16:00

Client ID: CAN 1653 SHELF 47 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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
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: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02 Date Collected: 09/08/17 16:00

Client ID: CAN 1653 SHELF 47 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 15:24
Analyst: RY

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Propylene	ND	0.500	--	ND	0.861	--		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	0.050	--	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
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		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	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1

Project Name:

Lab Number: L1731913

Project Number: CANISTER QC BAT

Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02
Client ID: CAN 1653 SHELF 47
Sample Location:

Date Collected: 09/08/17 16:00
Date Received: 09/11/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		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
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.020	--	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
2-Hexanone	ND	0.200	--	ND	0.820	--		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

Project Name: **Lab Number:** L1731913

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1731913-02 Date Collected: 09/08/17 16:00

Client ID: CAN 1653 SHELF 47 Date Received: 09/11/17

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
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
1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	85		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/04/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12007655502

Lab Number: L1734616
Report Date: 10/04/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1734616-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-06A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734616-07A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1734616
Project Number:	12007655502	**Report Date:**	10/04/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1734616
Project Number:	12007655502	**Report Date:**	10/04/17

Data Qualifiers

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 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

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

ALPHA ANALYTICAL — CHAIN OF CUSTODY

PAGE 1 OF 1

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

Date Rec'd in Lab: 9/28/17

ALPHA Job #: L1734616

Client Information

Client: GZA
Address: 855 Lane Rd #407
Fairfield NJ 07004
Phone: 973-774-3300
Fax: 973-774-3350
Email: Zhan.shu@gza.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: ~~GT~~ RPC
Project Location: New York
Project #: 1200765500
Project Manager: Zhan Shu
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	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	☐	Sample Comments (i.e. PID)
34616.01	SG-17	9/27/17	0958	1026	-29.88	-2.95	SV	AE	6	2066	0861	X						
.02	SG-19		1012	1048	-30.21	-3.70				1610	0513	X						
.03	SG-20		1241	1307	-29.82	-3.56				704	0812	X						
.04	SG-21		1202	1227	-29.76	-3.41				1692	0608	X						
.05	SG-6		1300	1327	-29.85	-2.99				2062	0855	X						
.06	SG-22		1531	1600	-30.52	-2.51				764	0661	X						
.07	SG-18		1547	1617	-29.11	-0.85				963	0678	X						

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

Container Type: 6S

Relinquished By:	Date/Time	Received By:	Date/Time:
Chelsea Flotteron	9/27/17 1625		9/27/17 1625
	9/28 0830		
	9/28/17 0215		9/28/17 0525
			9/28/17 0525

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

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

ANALYTICAL REPORT

Lab Number:	L1734903
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Zhan Shu
Phone:	(201) 744-0118
Project Name:	RPC
Project Number:	12.0076555.00
Report Date:	10/05/17

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1734903-01	SG-8	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 13:08	09/28/17
L1734903-02	SG-9	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 09:26	09/28/17
L1734903-03	SG-10	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 12:35	09/28/17
L1734903-04	SG-11	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 12:50	09/28/17
L1734903-05	SG-12	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 10:36	09/28/17
L1734903-06	SG-16	SOIL_VAPOR	ORANGEBURG, NY	09/28/17 15:24	09/28/17

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Case Narrative

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

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

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

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 18, 2017. The canister certification results are provided as an addendum.

L1734903-01 through -04 and -06 results for 1,3-Butadiene should be considered estimated due to co-elution with a non-target peak.

L1734903-03 and -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

L1734903-06: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Sample Receipt

Although the CoC does not indicate a collection date the client indicated via email that the samples were collected on September 28th.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 10/05/17

AIR

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-01
Client ID: SG-8
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/04/17 21:44
Analyst: MB

Date Collected: 09/28/17 13:08
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.383	0.200	--	1.89	0.989	--		1
Chloromethane	0.437	0.200	--	0.902	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	3.10	0.200	--	6.86	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.45	5.00	--	12.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	49.4	1.00	--	117	2.38	--		1
Trichlorofluoromethane	0.215	0.200	--	1.21	1.12	--		1
Isopropanol	1.01	0.500	--	2.48	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	4.93	0.200	--	15.4	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	7.49	0.500	--	22.1	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-01
Client ID: SG-8
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 13:08
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.21	0.200	--	7.79	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	4.46	0.200	--	14.2	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.240	0.200	--	0.826	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	1.41	0.200	--	5.78	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	2.90	0.200	--	10.9	0.754	--		1
2-Hexanone	0.337	0.200	--	1.38	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.29	0.200	--	5.60	0.869	--		1
p/m-Xylene	4.63	0.400	--	20.1	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-01
Client ID: SG-8
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 13:08
Date Received: 09/28/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.62	0.200	--	7.04	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	0.323	0.200	--	1.59	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	83		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-02
Client ID: SG-9
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/04/17 22:22
Analyst: MB

Date Collected: 09/28/17 09:26
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.523	0.200	--	2.59	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.946	0.200	--	2.09	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.64	5.00	--	12.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	26.4	1.00	--	62.7	2.38	--		1
Trichlorofluoromethane	0.252	0.200	--	1.42	1.12	--		1
Isopropanol	0.586	0.500	--	1.44	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.37	0.200	--	4.27	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.13	0.500	--	6.28	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-02
Client ID: SG-9
Sample Location: ORANGEBURG, NY

Date Collected: 09/28/17 09:26
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.804	0.200	--	2.83	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.936	0.200	--	2.99	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.310	0.200	--	1.07	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.503	0.200	--	2.06	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	0.834	0.200	--	3.14	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.422	0.400	--	1.83	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-02
Client ID: SG-9
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 09:26
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.225	0.200	--	1.11	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-03 D
Client ID: SG-10
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/04/17 22:59
Analyst: MB

Date Collected: 09/28/17 12:35
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.568	0.400	--	2.81	1.98	--		2
Chloromethane	ND	0.400	--	ND	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	1.18	0.400	--	2.61	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	ND	10.0	--	ND	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	34.6	2.00	--	82.2	4.75	--		2
Trichlorofluoromethane	ND	0.400	--	ND	2.25	--		2
Isopropanol	1.08	1.00	--	2.65	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	1.15	0.400	--	3.58	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	2.87	1.00	--	8.46	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Ethyl Acetate	ND	1.00	--	ND	3.60	--		2

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-03 D
Client ID: SG-10
Sample Location: ORANGEBURG, NY

Date Collected: 09/28/17 12:35
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.400	--	ND	1.95	--		2
Tetrahydrofuran	ND	1.00	--	ND	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	1.24	0.400	--	4.37	1.41	--		2
1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Benzene	1.55	0.400	--	4.95	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	0.714	0.400	--	2.46	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	ND	0.400	--	ND	2.15	--		2
2,2,4-Trimethylpentane	0.796	0.400	--	3.72	1.87	--		2
Heptane	0.854	0.400	--	3.50	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	2.81	0.400	--	10.6	1.51	--		2
2-Hexanone	ND	0.400	--	ND	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	0.446	0.400	--	3.02	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	0.472	0.400	--	2.05	1.74	--		2
p/m-Xylene	1.29	0.800	--	5.60	3.47	--		2
Bromoform	ND	0.400	--	ND	4.14	--		2
Styrene	ND	0.400	--	ND	1.70	--		2

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-03 D
Client ID: SG-10
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 12:35
Date Received: 09/28/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--		2
o-Xylene	0.660	0.400	--	2.87	1.74	--		2
4-Ethyltoluene	ND	0.400	--	ND	1.97	--		2
1,3,5-Trimethylbenzene	ND	0.400	--	ND	1.97	--		2
1,2,4-Trimethylbenzene	0.588	0.400	--	2.89	1.97	--		2
Benzyl chloride	ND	0.400	--	ND	2.07	--		2
1,3-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--		2
Hexachlorobutadiene	ND	0.400	--	ND	4.27	--		2

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

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-04
Client ID: SG-11
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/04/17 23:38
Analyst: MB

Date Collected: 09/28/17 12:50
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.641	0.200	--	3.17	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.355	0.200	--	0.785	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.02	5.00	--	11.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	41.4	1.00	--	98.3	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	1.15	0.500	--	2.83	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	3.82	0.200	--	11.9	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.69	0.500	--	7.93	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-04
Client ID: SG-11
Sample Location: ORANGEBURG, NY

Date Collected: 09/28/17 12:50
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.562	0.200	--	1.98	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.586	0.200	--	1.87	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.411	0.200	--	1.41	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.274	0.200	--	1.12	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	0.666	0.200	--	2.51	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.207	0.200	--	0.899	0.869	--		1
p/m-Xylene	0.695	0.400	--	3.02	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-04
Client ID: SG-11
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 12:50
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.350	0.200	--	1.52	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	0.493	0.200	--	2.42	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	85		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	81		60-140

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-05 D
Client ID: SG-12
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 00:14
Analyst: MB

Date Collected: 09/28/17 10:36
Date Received: 09/28/17
Field Prep: Not Specified

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-05 D
Client ID: SG-12
Sample Location: ORANGEBURG, NY

Date Collected: 09/28/17 10:36
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	2.00	--	ND	9.77	--		10
Tetrahydrofuran	ND	5.00	--	ND	14.7	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
n-Hexane	5.65	2.00	--	19.9	7.05	--		10
1,1,1-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Benzene	ND	2.00	--	ND	6.39	--		10
Carbon tetrachloride	ND	2.00	--	ND	12.6	--		10
Cyclohexane	2.93	2.00	--	10.1	6.88	--		10
1,2-Dichloropropane	ND	2.00	--	ND	9.24	--		10
Bromodichloromethane	ND	2.00	--	ND	13.4	--		10
1,4-Dioxane	ND	2.00	--	ND	7.21	--		10
Trichloroethene	ND	2.00	--	ND	10.7	--		10
2,2,4-Trimethylpentane	ND	2.00	--	ND	9.34	--		10
Heptane	7.54	2.00	--	30.9	8.20	--		10
cis-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
4-Methyl-2-pentanone	ND	5.00	--	ND	20.5	--		10
trans-1,3-Dichloropropene	ND	2.00	--	ND	9.08	--		10
1,1,2-Trichloroethane	ND	2.00	--	ND	10.9	--		10
Toluene	ND	2.00	--	ND	7.54	--		10
2-Hexanone	ND	2.00	--	ND	8.20	--		10
Dibromochloromethane	ND	2.00	--	ND	17.0	--		10
1,2-Dibromoethane	ND	2.00	--	ND	15.4	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10
Chlorobenzene	ND	2.00	--	ND	9.21	--		10
Ethylbenzene	ND	2.00	--	ND	8.69	--		10
p/m-Xylene	ND	4.00	--	ND	17.4	--		10
Bromoform	ND	2.00	--	ND	20.7	--		10
Styrene	ND	2.00	--	ND	8.52	--		10

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-05 D
Client ID: SG-12
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 10:36
Date Received: 09/28/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	2.00	--	ND	13.7	--		10
o-Xylene	12.5	2.00	--	54.3	8.69	--		10
4-Ethyltoluene	ND	2.00	--	ND	9.83	--		10
1,3,5-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
1,2,4-Trimethylbenzene	ND	2.00	--	ND	9.83	--		10
Benzyl chloride	ND	2.00	--	ND	10.4	--		10
1,3-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,4-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2-Dichlorobenzene	ND	2.00	--	ND	12.0	--		10
1,2,4-Trichlorobenzene	ND	2.00	--	ND	14.8	--		10
Hexachlorobutadiene	ND	2.00	--	ND	21.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-06 D
Client ID: SG-16
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 00:50
Analyst: MB

Date Collected: 09/28/17 15:24
Date Received: 09/28/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	ND	0.667	--	ND	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
1,3-Butadiene	5.44	0.667	--	12.0	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
Ethanol	ND	16.7	--	ND	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	674	3.33	--	1600	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	16.6	1.67	--	40.8	4.10	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Tertiary butyl Alcohol	ND	1.67	--	ND	5.06	--		3.333
Methylene chloride	ND	1.67	--	ND	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	3.21	0.667	--	10.0	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	29.4	1.67	--	86.7	4.93	--		3.333
cis-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-06 D
Client ID: SG-16
Sample Location: ORANGEBURG, NY

Date Collected: 09/28/17 15:24
Date Received: 09/28/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.820	0.667	--	4.00	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	4.22	0.667	--	14.9	2.35	--		3.333
1,1,1-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Benzene	21.6	0.667	--	69.0	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	1.96	0.667	--	6.75	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	ND	0.667	--	ND	3.58	--		3.333
2,2,4-Trimethylpentane	ND	0.667	--	ND	3.12	--		3.333
Heptane	1.84	0.667	--	7.54	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	10.4	0.667	--	39.2	2.51	--		3.333
2-Hexanone	ND	0.667	--	ND	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	4.59	0.667	--	19.9	2.90	--		3.333
p/m-Xylene	3.76	1.33	--	16.3	5.78	--		3.333
Bromoform	ND	0.667	--	ND	6.90	--		3.333
Styrene	ND	0.667	--	ND	2.84	--		3.333

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

SAMPLE RESULTS

Lab ID: L1734903-06 D
Client ID: SG-16
Sample Location: ORANGEBURG, NY
Date Collected: 09/28/17 15:24
Date Received: 09/28/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.667	--	ND	4.58	--		3.333
o-Xylene	1.62	0.667	--	7.04	2.90	--		3.333
4-Ethyltoluene	ND	0.667	--	ND	3.28	--		3.333
1,3,5-Trimethylbenzene	0.770	0.667	--	3.79	3.28	--		3.333
1,2,4-Trimethylbenzene	0.850	0.667	--	4.18	3.28	--		3.333
Benzyl chloride	ND	0.667	--	ND	3.45	--		3.333
1,3-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,4-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2-Dichlorobenzene	ND	0.667	--	ND	4.01	--		3.333
1,2,4-Trichlorobenzene	ND	0.667	--	ND	4.95	--		3.333
Hexachlorobutadiene	ND	0.667	--	ND	7.11	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/04/17 16:20

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): 01-06 Batch: WG1048807-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/04/17 16:20

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): 01-06 Batch: WG1048807-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1734903
Report Date: 10/05/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/04/17 16:20

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): 01-06 Batch: WG1048807-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734903

Report Date: 10/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1048807-3								
Chlorodifluoromethane	89		-		70-130	-		
Propylene	100		-		70-130	-		
Propane	78		-		70-130	-		
Dichlorodifluoromethane	105		-		70-130	-		
Chloromethane	82		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		
Methanol	78		-		70-130	-		
Vinyl chloride	95		-		70-130	-		
1,3-Butadiene	96		-		70-130	-		
Butane	70		-		70-130	-		
Bromomethane	86		-		70-130	-		
Chloroethane	84		-		70-130	-		
Ethyl Alcohol	81		-		70-130	-		
Dichlorofluoromethane	77		-		70-130	-		
Vinyl bromide	79		-		70-130	-		
Acrolein	82		-		70-130	-		
Acetone	85		-		70-130	-		
Acetonitrile	79		-		70-130	-		
Trichlorofluoromethane	86		-		70-130	-		
iso-Propyl Alcohol	76		-		70-130	-		
Acrylonitrile	80		-		70-130	-		
1,1-Dichloroethene	93		-		70-130	-		
tert-Butyl Alcohol	80		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1048807-3								
Methylene chloride	82		-		70-130	-		
3-Chloropropene	83		-		70-130	-		
Carbon disulfide	78		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	83		-		70-130	-		
trans-1,2-Dichloroethene	86		-		70-130	-		
1,1-Dichloroethane	78		-		70-130	-		
Methyl tert butyl ether	79		-		70-130	-		
Vinyl acetate	88		-		70-130	-		
2-Butanone	80		-		70-130	-		
cis-1,2-Dichloroethene	86		-		70-130	-		
Ethyl Acetate	82		-		70-130	-		
Chloroform	96		-		70-130	-		
Tetrahydrofuran	79		-		70-130	-		
2,2-Dichloropropane	82		-		70-130	-		
1,2-Dichloroethane	94		-		70-130	-		
n-Hexane	91		-		70-130	-		
Isopropyl Ether	74		-		70-130	-		
Ethyl-Tert-Butyl-Ether	76		-		70-130	-		
1,1,1-Trichloroethane	93		-		70-130	-		
1,1-Dichloropropene	98		-		70-130	-		
Benzene	96		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		
Cyclohexane	96		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1048807-3								
Tertiary-Amyl Methyl Ether	80		-		70-130	-		
Dibromomethane	89		-		70-130	-		
1,2-Dichloropropane	88		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	92		-		70-130	-		
Trichloroethene	94		-		70-130	-		
2,2,4-Trimethylpentane	99		-		70-130	-		
Methyl Methacrylate	107		-		70-130	-		
Heptane	91		-		70-130	-		
cis-1,3-Dichloropropene	103		-		70-130	-		
4-Methyl-2-pentanone	92		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	79		-		70-130	-		
1,3-Dichloropropane	84		-		70-130	-		
2-Hexanone	78		-		70-130	-		
Dibromochloromethane	90		-		70-130	-		
1,2-Dibromoethane	88		-		70-130	-		
Butyl Acetate	83		-		70-130	-		
Octane	74		-		70-130	-		
Tetrachloroethene	83		-		70-130	-		
1,1,1,2-Tetrachloroethane	79		-		70-130	-		
Chlorobenzene	86		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1048807-3								
Ethylbenzene	83		-		70-130	-		
p/m-Xylene	86		-		70-130	-		
Bromoform	92		-		70-130	-		
Styrene	91		-		70-130	-		
1,1,2,2-Tetrachloroethane	94		-		70-130	-		
o-Xylene	90		-		70-130	-		
1,2,3-Trichloropropane	90		-		70-130	-		
Nonane (C9)	80		-		70-130	-		
Isopropylbenzene	89		-		70-130	-		
Bromobenzene	88		-		70-130	-		
o-Chlorotoluene	83		-		70-130	-		
n-Propylbenzene	81		-		70-130	-		
p-Chlorotoluene	84		-		70-130	-		
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	95		-		70-130	-		
tert-Butylbenzene	88		-		70-130	-		
1,2,4-Trimethylbenzene	100		-		70-130	-		
Decane (C10)	91		-		70-130	-		
Benzyl chloride	89		-		70-130	-		
1,3-Dichlorobenzene	97		-		70-130	-		
1,4-Dichlorobenzene	98		-		70-130	-		
sec-Butylbenzene	92		-		70-130	-		
p-Isopropyltoluene	83		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734903

Report Date: 10/05/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 Batch: WG1048807-3								
1,2-Dichlorobenzene	89		-		70-130	-		
n-Butylbenzene	96		-		70-130	-		
1,2-Dibromo-3-chloropropane	96		-		70-130	-		
Undecane	103		-		70-130	-		
Dodecane (C12)	102		-		70-130	-		
1,2,4-Trichlorobenzene	114		-		70-130	-		
Naphthalene	109		-		70-130	-		
1,2,3-Trichlorobenzene	106		-		70-130	-		
Hexachlorobutadiene	106		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1048807-5 QC Sample: L1735454-02 Client ID: DUP Sample						
Dichlorodifluoromethane	0.591	0.589	ppbV	0		25
Chloromethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acrolein	ND	ND	ppbV	NC		25
Acetone	15.2	15.4	ppbV	1		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
Acrylonitrile	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.425	0.418	ppbV	2		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
Chloroform	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1048807-5 QC Sample: L1735454-02 Client ID: DUP Sample						
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
Methyl Methacrylate	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	2.45	2.44	ppbV	0		25
1,3-Dichloropropane	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	0.730	0.698	ppbV	4		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG1048807-5 QC Sample: L1735454-02 Client ID: DUP Sample						
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
Isopropylbenzene	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
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Naphthalene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1734903

Report Date: 10/05/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1734903-01	SG-8	0887	SV200	09/18/17	248206		-	-	-	Pass	204	220	8
L1734903-01	SG-8	2113	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.9	-6.4	-	-	-	-
L1734903-02	SG-9	0663	SV200	09/18/17	248206		-	-	-	Pass	220	216	2
L1734903-02	SG-9	1547	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.8	-3.8	-	-	-	-
L1734903-03	SG-10	0687	SV200	09/18/17	248206		-	-	-	Pass	221	215	3
L1734903-03	SG-10	2063	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.8	-4.3	-	-	-	-
L1734903-04	SG-11	0712	SV200	09/18/17	248206		-	-	-	Pass	219	214	2
L1734903-04	SG-11	940	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.9	-2.4	-	-	-	-
L1734903-05	SG-12	0882	SV200	09/18/17	248206		-	-	-	Pass	210	217	3
L1734903-05	SG-12	603	6.0L Can	09/18/17	248206	L1732039-02	Pass	-28.8	-3.7	-	-	-	-
L1734903-06	SG-16	0604	SV200	09/18/17	248206		-	-	-	Pass	217	212	2
L1734903-06	SG-16	1588	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.9	-5.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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 **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02
Client ID: CAN 1625 SHELF 32
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 18:18
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02 Date Collected: 09/11/17 16:00

Client ID: CAN 1625 SHELF 32 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02 Date Collected: 09/11/17 16:00

Client ID: CAN 1625 SHELF 32 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02
Client ID: CAN 1625 SHELF 32
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02 Date Collected: 09/11/17 16:00

Client ID: CAN 1625 SHELF 32 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02
Client ID: CAN 1625 SHELF 32
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 18:18
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02
Client ID: CAN 1625 SHELF 32
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-02
Client ID: CAN 1625 SHELF 32
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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 **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	85		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/05/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1734903
Report Date: 10/05/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1734903-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734903-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734903-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734903-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734903-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1734903-06A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1734903
Project Number:	12.0076555.00	**Report Date:**	10/05/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1734903
Project Number:	12.0076555.00	**Report Date:**	10/05/17

Data Qualifiers

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 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:	RPC	**Lab Number:**	L1734903
Project Number:	12.0076555.00	**Report Date:**	10/05/17

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/29/17

ALPHA Job #: L1734903

Client Information

Client: G2A
Address: 55 Lane Rd #407
Fairfield NJ 07004
Phone: 973-774-3300
Fax: 973-774-3350
Email: zhan.shu@g2alcom
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: Orangeburg, NY
Project #: 12.0076555.00
Project Manager: Zhan Shu
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: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
34903.01	SG-8		1243	1308	-29.78	-4.31	SV	AE	6	2113	0887	X					
02	SG-9		0858	0926	-29.93	-2.80				1547	0663	X					
03	SG-10		1209	1235	-29.53	-3.51				2063	0687	X					
04	SG-11		1220	1250	-29.70	-1.43				940	0712	X					
05	SG-12		1010	1036	-28.86	-2.45				603	0882	X					
06	SG-16		1458	1524	-30.14	-3.81				1588	0664	X					

*SAMPLE MATRIX CODES

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

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	9/28/17 1657	Ramek Jackson AAL	9/28 1659
[signature]	9/29 1800	[signature] 9/28	2200
[signature]	9/29 0230	[signature]	09/29/17 0230
[signature]	09/29/17 0630	[signature]	9/29/17 0630

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.

Chris Anderson <canderson@alphalab.com>

Re: Collection Date Missing from CoC

1 message

Zhan Shu <Zhan.Shu@gza.com> Thu, Sep 28, 2017 at 6:42 PM
To: Chris Anderson <canderson@alphalab.com>
Cc: Arsheen Ehtesham <Arsheen.Ehtesham@gza.com>

Chris,

All these samples were collected today (9/28/2017)

Thanks,
Zhan

Sent from my iPhone

On Sep 28, 2017, at 6:26 PM, Chris Anderson <canderson@alphalab.com> wrote:

> Hello Zhan,
>
> Could you have someone fill in the missing collection date on the attached CoC for the air samples submitted for the RPC site. We can not proceed with login until we have the collection date.
>
> Thank you for your assistance.
>
> Best regards,
> Chris
>
> ---------- Forwarded message ----------
> From: njcourier1 1 njcourier1 1 <njcourier11@alphalab.com>
> Date: Thu, Sep 28, 2017 at 5:01 PM
> Subject: Gza
> To: mfcoc@alphalab.com
>
> --
>
> Chris Anderson
> Project Manager / Technical Representative
>
> Email: canderson@alphalab.com
> Direct: 802-585-5351
> Main: 508-898-9220
>
> www.alphalab.com

ANALYTICAL REPORT

Lab Number:	L1735174
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Zhan Shu
Phone:	(201) 744-0118
Project Name:	RPC
Project Number:	12.0076555.00
Report Date:	10/06/17

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1735174-01	SG-7	SOIL_VAPOR	ORANGEBURG, NY	09/29/17 12:11	09/29/17
L1735174-02	SG-13	SOIL_VAPOR	ORANGEBURG, NY	09/29/17 11:07	09/29/17
L1735174-03	SG-14	SOIL_VAPOR	ORANGEBURG, NY	09/29/17 12:34	09/29/17
L1735174-04	SG-15	SOIL_VAPOR	ORANGEBURG, NY	09/29/17 12:26	09/29/17
L1735174-05	DUP-SG-2	SOIL_VAPOR	ORANGEBURG, NY	09/29/17 11:07	09/29/17

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Case Narrative

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

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

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

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

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

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

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on September 18, 2017. The canister certification results are provided as an addendum.

L1735174-01 through -04 results for 1,3-Butadiene should be considered estimated due to co-elution with a non-target peak.

L1735174-03 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 10/06/17

AIR

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-01
Client ID: SG-7
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 17:18
Analyst: MB

Date Collected: 09/29/17 12:11
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.453	0.200	--	2.24	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.54	0.200	--	3.41	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.86	1.00	--	9.17	2.38	--		1
Trichlorofluoromethane	0.279	0.200	--	1.57	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.73	0.200	--	5.39	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-01
Client ID: SG-7
Sample Location: ORANGEBURG, NY

Date Collected: 09/29/17 12:11
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	0.255	0.200	--	1.25	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.865	0.200	--	3.05	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.931	0.200	--	2.97	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.259	0.200	--	1.21	0.934	--		1
Heptane	0.421	0.200	--	1.73	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	1.19	0.200	--	4.48	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.425	0.400	--	1.85	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-01
Client ID: SG-7
Sample Location: ORANGEBURG, NY

Date Collected: 09/29/17 12:11
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.204	0.200	--	0.886	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-02
Client ID: SG-13
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 17:57
Analyst: MB

Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.541	0.200	--	2.68	0.989	--		1
Chloromethane	0.408	0.200	--	0.843	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.758	0.200	--	1.68	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.12	1.00	--	7.41	2.38	--		1
Trichlorofluoromethane	0.203	0.200	--	1.14	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.429	0.200	--	1.34	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-02
Client ID: SG-13
Sample Location: ORANGEBURG, NY

Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.375	0.200	--	1.32	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.317	0.200	--	1.01	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.220	0.200	--	0.902	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	0.478	0.200	--	1.80	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.233	0.200	--	1.01	0.869	--		1
p/m-Xylene	0.792	0.400	--	3.44	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-02
Client ID: SG-13
Sample Location: ORANGEBURG, NY
Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.365	0.200	--	1.59	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	0.723	0.200	--	3.55	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-03
Client ID: SG-14
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 19:15
Analyst: MB

Date Collected: 09/29/17 12:34
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.475	0.200	--	2.35	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	3.37	0.200	--	7.46	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	27.2	1.00	--	64.6	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	0.937	0.500	--	2.30	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	13.2	0.200	--	41.1	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.90	0.500	--	11.5	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-03
Client ID: SG-14
Sample Location: ORANGEBURG, NY

Date Collected: 09/29/17 12:34
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.38	0.200	--	4.86	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.72	0.200	--	5.49	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.591	0.200	--	2.03	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.802	0.200	--	3.29	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	1.57	0.200	--	5.92	0.754	--		1
2-Hexanone	0.248	0.200	--	1.02	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.351	0.200	--	1.52	0.869	--		1
p/m-Xylene	0.847	0.400	--	3.68	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-03
Client ID: SG-14
Sample Location: ORANGEBURG, NY
Date Collected: 09/29/17 12:34
Date Received: 09/29/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.411	0.200	--	1.79	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	0.233	0.200	--	1.15	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-04
Client ID: SG-15
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 19:54
Analyst: MB

Date Collected: 09/29/17 12:26
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.476	0.200	--	2.35	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.49	0.200	--	3.30	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	56.6	1.00	--	134	2.38	--		1
Trichlorofluoromethane	0.228	0.200	--	1.28	1.12	--		1
Isopropanol	2.50	0.500	--	6.15	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.963	0.200	--	3.00	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.92	0.500	--	11.6	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-04
Client ID: SG-15
Sample Location: ORANGEBURG, NY
Date Collected: 09/29/17 12:26
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.773	0.200	--	2.72	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.831	0.200	--	2.65	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.333	0.200	--	1.36	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	0.743	0.200	--	2.80	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.505	0.400	--	2.19	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-04
Client ID: SG-15
Sample Location: ORANGEBURG, NY
Date Collected: 09/29/17 12:26
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.258	0.200	--	1.12	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	0.565	0.200	--	2.78	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	91		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-05
Client ID: DUP-SG-2
Sample Location: ORANGEBURG, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 10/05/17 20:33
Analyst: MB

Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.558	0.200	--	2.76	0.989	--		1
Chloromethane	0.442	0.200	--	0.913	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.233	0.200	--	0.515	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.81	1.00	--	6.68	2.38	--		1
Trichlorofluoromethane	0.216	0.200	--	1.21	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-05
Client ID: DUP-SG-2
Sample Location: ORANGEBURG, NY

Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
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: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

SAMPLE RESULTS

Lab ID: L1735174-05
Client ID: DUP-SG-2
Sample Location: ORANGEBURG, NY
Date Collected: 09/29/17 11:07
Date Received: 09/29/17
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/05/17 14:40

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): 01-05 Batch: WG1049244-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/05/17 14:40

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): 01-05 Batch: WG1049244-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 12.0076555.00
Lab Number: L1735174
Report Date: 10/06/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 10/05/17 14:40

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): 01-05 Batch: WG1049244-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1735174

Report Date: 10/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1049244-3								
Chlorodifluoromethane	88		-		70-130	-		
Propylene	97		-		70-130	-		
Propane	76		-		70-130	-		
Dichlorodifluoromethane	104		-		70-130	-		
Chloromethane	81		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		
Methanol	78		-		70-130	-		
Vinyl chloride	93		-		70-130	-		
1,3-Butadiene	94		-		70-130	-		
Bromomethane	86		-		70-130	-		
Chloroethane	84		-		70-130	-		
Ethyl Alcohol	79		-		70-130	-		
Dichlorofluoromethane	76		-		70-130	-		
Vinyl bromide	81		-		70-130	-		
Acrolein	83		-		70-130	-		
Acetone	83		-		70-130	-		
Acetonitrile	78		-		70-130	-		
Trichlorofluoromethane	86		-		70-130	-		
iso-Propyl Alcohol	74		-		70-130	-		
Acrylonitrile	81		-		70-130	-		
Ethyl ether	72		-		70-130	-		
1,1-Dichloroethene	91		-		70-130	-		
tert-Butyl Alcohol	76		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1735174

Report Date: 10/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1049244-3								
Methylene chloride	82		-		70-130	-		
3-Chloropropene	81		-		70-130	-		
Carbon disulfide	77		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	83		-		70-130	-		
trans-1,2-Dichloroethene	85		-		70-130	-		
1,1-Dichloroethane	83		-		70-130	-		
Methyl tert butyl ether	76		-		70-130	-		
Vinyl acetate	85		-		70-130	-		
2-Butanone	78		-		70-130	-		
cis-1,2-Dichloroethene	83		-		70-130	-		
Ethyl Acetate	82		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	76		-		70-130	-		
2,2-Dichloropropane	79		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	88		-		70-130	-		
Isopropyl Ether	72		-		70-130	-		
Ethyl-Tert-Butyl-Ether	72		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
1,1-Dichloropropene	97		-		70-130	-		
Benzene	96		-		70-130	-		
Carbon tetrachloride	96		-		70-130	-		
Cyclohexane	94		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1049244-3								
Tertiary-Amyl Methyl Ether	77		-		70-130	-		
Dibromomethane	90		-		70-130	-		
1,2-Dichloropropane	89		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	93		-		70-130	-		
Trichloroethene	96		-		70-130	-		
2,2,4-Trimethylpentane	98		-		70-130	-		
Methyl Methacrylate	105		-		70-130	-		
Heptane	91		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	92		-		70-130	-		
trans-1,3-Dichloropropene	89		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Toluene	79		-		70-130	-		
1,3-Dichloropropane	84		-		70-130	-		
2-Hexanone	78		-		70-130	-		
Dibromochloromethane	89		-		70-130	-		
1,2-Dibromoethane	90		-		70-130	-		
Butyl Acetate	84		-		70-130	-		
Octane	73		-		70-130	-		
Tetrachloroethene	85		-		70-130	-		
1,1,1,2-Tetrachloroethane	80		-		70-130	-		
Chlorobenzene	86		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1049244-3								
Ethylbenzene	84		-		70-130	-		
p/m-Xylene	86		-		70-130	-		
Bromoform	93		-		70-130	-		
Styrene	91		-		70-130	-		
1,1,2,2-Tetrachloroethane	98		-		70-130	-		
o-Xylene	91		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	80		-		70-130	-		
Isopropylbenzene	88		-		70-130	-		
Bromobenzene	87		-		70-130	-		
o-Chlorotoluene	86		-		70-130	-		
n-Propylbenzene	83		-		70-130	-		
p-Chlorotoluene	85		-		70-130	-		
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	95		-		70-130	-		
tert-Butylbenzene	90		-		70-130	-		
1,2,4-Trimethylbenzene	101		-		70-130	-		
Decane (C10)	91		-		70-130	-		
Benzyl chloride	90		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	99		-		70-130	-		
sec-Butylbenzene	94		-		70-130	-		
p-Isopropyltoluene	84		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1735174

Report Date: 10/06/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1049244-3								
1,2-Dichlorobenzene	92		-		70-130	-		
n-Butylbenzene	98		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	104		-		70-130	-		
Dodecane (C12)	103		-		70-130	-		
1,2,4-Trichlorobenzene	119		-		70-130	-		
Naphthalene	111		-		70-130	-		
1,2,3-Trichlorobenzene	109		-		70-130	-		
Hexachlorobutadiene	112		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1049244-5 QC Sample: L1735174-02 Client ID: SG-13						
Dichlorodifluoromethane	0.541	0.565	ppbV	4		25
Chloromethane	0.408	0.401	ppbV	2		25
Freon-114	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	0.758	0.779	ppbV	3		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	3.12	3.13	ppbV	0		25
Trichlorofluoromethane	0.203	0.215	ppbV	6		25
Isopropanol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.429	0.447	ppbV	4		25
Freon-113	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: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1049244-5 QC Sample: L1735174-02 Client ID: SG-13						
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.375	0.361	ppbV	4		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	0.317	0.311	ppbV	2		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	0.220	0.218	ppbV	1		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1049244-5 QC Sample: L1735174-02 Client ID: SG-13						
Toluene	0.478	0.503	ppbV	5		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.233	0.240	ppbV	3		25
p/m-Xylene	0.792	0.793	ppbV	0		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	0.365	0.365	ppbV	0		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	0.723	0.724	ppbV	0		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12.0076555.00

Lab Number: L1735174

Report Date: 10/06/17

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1735174-01	SG-7	0565	SV200	09/18/17	248206		-	-	-	Pass	220	215	2
L1735174-01	SG-7	2252	6.0L Can	09/18/17	248206	L1732039-01	Pass	-29.7	0	-	-	-	-
L1735174-02	SG-13	0902	SV200	09/18/17	248206		-	-	-	Pass	215	216	0
L1735174-02	SG-13	903	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.8	-1.3	-	-	-	-
L1735174-03	SG-14	0864	SV200	09/18/17	248206		-	-	-	Pass	219	215	2
L1735174-03	SG-14	1992	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.9	-4.5	-	-	-	-
L1735174-04	SG-15	0669	SV200	09/18/17	248206		-	-	-	Pass	219	216	1
L1735174-04	SG-15	1829	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.6	-1.2	-	-	-	-
L1735174-05	DUP-SG-2	0567	SV200	09/18/17	248206		-	-	-	Pass	215	218	1
L1735174-05	DUP-SG-2	1555	6.0L Can	09/18/17	248206	L1732039-03	Pass	-29.9	-1.3	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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 **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

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

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 17:43
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01
Client ID: CAN 1669 SHELF 31
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-01 Date Collected: 09/11/17 16:00

Client ID: CAN 1669 SHELF 31 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1732039
Report Date: 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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: L1732039
Report Date: 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

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

No Tentatively Identified Compounds

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	85		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03
Client ID: CAN 1909 SHELF 33
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/12/17 18:53
Analyst: RY

Date Collected: 09/11/17 16:00
Date Received: 09/12/17
Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1732039

Project Number: CANISTER QC BAT **Report Date:** 10/06/17

Air Canister Certification Results

Lab ID: L1732039-03 Date Collected: 09/11/17 16:00

Client ID: CAN 1909 SHELF 33 Date Received: 09/12/17

Sample Location: Field Prep: Not Specified

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

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.00

Lab Number: L1735174
Report Date: 10/06/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1735174-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1735174-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1735174-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1735174-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1735174-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1735174
Project Number:	12.0076555.00	**Report Date:**	10/06/17

GLOSSARY

Acronyms

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

Footnotes

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

Terms

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

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1735174
Project Number:	12.0076555.00	**Report Date:**	10/06/17

Data Qualifiers

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 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

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/30/17

ALPHA Job #: L1735774 ~~L1735775~~ KB

Client Information

Client: GZA
Address: 55 Lane Rd #407
Fairfield NJ 07004
Phone: 973-774-3300
Fax: 973 774- 3350
Email: zhan.shu@gza.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: Orangeburg NY
Project #: 12007655.00
Project Manager: Zhan Shu
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)
~~35175~~ 35174 .01	SG-7	9/29/17	1136	1211	-29.71	-0.11	SV	AE	6	2252	0565	X					
.02	SG-13		1033	1107	-29.98	-0.70	SV	AE	6	903	0902	X					
03	SG-14		1207	1234	-29.54	-3.91	SV	AE	6	A92	0864	X					
04	SG-15		1153	1226	-30.34	-0.30	SV	AE	6	1829	0669	X					
.05	DUP-SG-2		1033	1107	-29.91	-0.58	SV	AE	6	1855	0567	X					

*SAMPLE MATRIX CODES

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

Container Type: CS

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

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	9/29/17 1745	Jon Pardini AAL	9-29-17 1745
Jon Pardini	9/29-17 1845	[signature]	9/29 2200
[signature]	9/30 0214	[signature]	09/30/17 0245
[signature]	09/30/17 0725	[signature]	9/30/17 07:25

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

ANALYTICAL REPORT

Lab Number:	L1958249
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Mindy Sayres
Phone:	(973) 774-3300
Project Name:	RPC
Project Number:	12.0076555.02
Report Date:	12/10/19

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Six Park Row, Mansfield, MA 02048
508-261-7467 (Fax) -- -- - emccarter@mansfieldma.com

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1958249-01	VP-1	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 11:22	12/05/19
L1958249-02	VP-2	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 11:05	12/05/19
L1958249-03	VP-3	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/05/19 12:20	12/05/19
L1958249-04	VP-4	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 15:30	12/05/19
L1958249-05	VP-5	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 15:40	12/05/19
L1958249-06	VP-6	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/05/19 11:07	12/05/19
L1958249-07	VP-7	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 12:45	12/05/19
L1958249-08	VP-8	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 11:20	12/05/19
L1958249-09	VP-9	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/05/19 09:50	12/05/19
L1958249-10	VP-10	SOIL_VAPOR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 09:05	12/05/19
L1958249-11	OAA	AIR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 15:30	12/05/19
L1958249-12	IAA	AIR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/04/19 15:35	12/05/19

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on November 27, 2019. The canister certification results are provided as an addendum.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 12/10/19

AIR

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-01
Client ID: VP-1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 19:56
Analyst: TS

Date Collected: 12/04/19 11:22
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.723	0.200	--	3.58	0.989	--		1
Chloromethane	0.278	0.200	--	0.574	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.10	1.00	--	12.1	2.38	--		1
Trichlorofluoromethane	0.317	0.200	--	1.78	1.12	--		1
Isopropanol	1.09	0.500	--	2.68	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.758	0.500	--	2.30	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.348	0.200	--	1.08	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.56	0.500	--	7.55	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-01
Client ID: VP-1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:22
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	2.97	0.500	--	8.76	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.365	0.200	--	1.29	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.236	0.200	--	0.754	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.00	0.200	--	7.54	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.518	0.200	--	2.25	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-01
Client ID: VP-1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:22
Date Received: 12/05/19
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								
p/m-Xylene	2.24	0.400	--	9.73	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.287	0.200	--	1.22	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.998	0.200	--	4.33	0.869	--		1
4-Ethyltoluene	0.391	0.200	--	1.92	0.983	--		1
1,3,5-Trimethylbenzene	0.743	0.200	--	3.65	0.983	--		1
1,2,4-Trimethylbenzene	4.04	0.200	--	19.9	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-02
Client ID: VP-2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 20:35
Analyst: TS

Date Collected: 12/04/19 11:05
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.623	0.200	--	3.08	0.989	--		1
Chloromethane	0.738	0.200	--	1.52	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	16.5	5.00	--	31.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	11.5	1.00	--	27.3	2.38	--		1
Trichlorofluoromethane	0.265	0.200	--	1.49	1.12	--		1
Isopropanol	1.67	0.500	--	4.10	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.04	0.500	--	3.15	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.07	0.500	--	9.05	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-02
Client ID: VP-2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:05
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	3.05	0.500	--	9.00	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.561	0.200	--	1.98	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.390	0.200	--	1.25	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.364	0.200	--	1.49	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	2.40	0.200	--	9.04	0.754	--		1
2-Hexanone	0.204	0.200	--	0.836	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.694	0.200	--	3.01	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-02
Client ID: VP-2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:05
Date Received: 12/05/19
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								
p/m-Xylene	2.70	0.400	--	11.7	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.255	0.200	--	1.09	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.03	0.200	--	4.47	0.869	--		1
4-Ethyltoluene	0.374	0.200	--	1.84	0.983	--		1
1,3,5-Trimethylbenzene	0.690	0.200	--	3.39	0.983	--		1
1,2,4-Trimethylbenzene	3.62	0.200	--	17.8	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-03
Client ID: VP-3
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 21:13
Analyst: TS

Date Collected: 12/05/19 12:20
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.501	0.200	--	2.48	0.989	--		1
Chloromethane	0.380	0.200	--	0.785	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	7.18	5.00	--	13.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	8.10	1.00	--	19.2	2.38	--		1
Trichlorofluoromethane	0.282	0.200	--	1.58	1.12	--		1
Isopropanol	8.36	0.500	--	20.5	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.588	0.500	--	1.78	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.50	0.500	--	7.37	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-03
Client ID: VP-3
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 12:20
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	3.54	0.500	--	10.4	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.451	0.200	--	1.59	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.298	0.200	--	0.952	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	0.385	0.200	--	2.07	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.31	0.200	--	8.71	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.494	0.200	--	2.15	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-03
Client ID: VP-3
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 12:20
Date Received: 12/05/19
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								
p/m-Xylene	2.18	0.400	--	9.47	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.293	0.200	--	1.25	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.949	0.200	--	4.12	0.869	--		1
4-Ethyltoluene	0.418	0.200	--	2.05	0.983	--		1
1,3,5-Trimethylbenzene	0.750	0.200	--	3.69	0.983	--		1
1,2,4-Trimethylbenzene	3.95	0.200	--	19.4	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-04
Client ID: VP-4
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 21:51
Analyst: TS

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.520	0.200	--	2.57	0.989	--		1
Chloromethane	0.492	0.200	--	1.02	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.62	1.00	--	8.60	2.38	--		1
Trichlorofluoromethane	0.253	0.200	--	1.42	1.12	--		1
Isopropanol	0.977	0.500	--	2.40	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.596	0.500	--	1.81	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.68	0.500	--	4.95	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-04
Client ID: VP-4
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	2.32	0.500	--	6.84	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.372	0.200	--	1.31	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.388	0.200	--	1.24	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.02	0.200	--	7.61	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.350	0.200	--	1.52	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-04
Client ID: VP-4
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	1.50	0.400	--	6.52	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	0.632	0.200	--	2.75	0.869	--		1
4-Ethyltoluene	0.279	0.200	--	1.37	0.983	--		1
1,3,5-Trimethylbenzene	0.486	0.200	--	2.39	0.983	--		1
1,2,4-Trimethylbenzene	2.61	0.200	--	12.8	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	101		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	99		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-05
Client ID: VP-5
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 22:30
Analyst: TS

Date Collected: 12/04/19 15:40
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.510	0.200	--	2.52	0.989	--		1
Chloromethane	0.564	0.200	--	1.16	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.485	0.200	--	1.07	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.79	5.00	--	12.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.57	1.00	--	15.6	2.38	--		1
Trichlorofluoromethane	0.241	0.200	--	1.35	1.12	--		1
Isopropanol	1.94	0.500	--	4.77	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.746	0.500	--	2.59	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.229	0.200	--	0.713	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.42	0.500	--	4.19	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-05
Client ID: VP-5
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:40
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	1.52	0.500	--	4.48	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.317	0.200	--	1.12	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.979	0.200	--	3.13	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.586	0.500	--	2.40	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	1.38	0.200	--	5.20	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.461	0.200	--	2.00	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-05
Client ID: VP-5
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:40
Date Received: 12/05/19
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								
p/m-Xylene	1.91	0.400	--	8.30	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.358	0.200	--	1.52	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.691	0.200	--	3.00	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	0.313	0.200	--	1.54	0.983	--		1
1,2,4-Trimethylbenzene	1.66	0.200	--	8.16	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-06
Client ID: VP-6
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 23:08
Analyst: TS

Date Collected: 12/05/19 11:07
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	3.15	0.200	--	15.6	0.989	--		1
Chloromethane	0.277	0.200	--	0.572	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	4.46	1.00	--	10.6	2.38	--		1
Trichlorofluoromethane	1.44	0.200	--	8.09	1.12	--		1
Isopropanol	0.927	0.500	--	2.28	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.685	0.500	--	2.08	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.627	0.200	--	1.95	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.42	0.500	--	7.14	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-06
Client ID: VP-6
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 11:07
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	3.32	0.500	--	9.79	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.775	0.200	--	2.73	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.291	0.200	--	0.930	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.527	0.200	--	1.81	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.72	0.200	--	10.3	0.754	--		1
2-Hexanone	0.243	0.200	--	0.996	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.546	0.200	--	3.70	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.557	0.200	--	2.42	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-06
Client ID: VP-6
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 11:07
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	2.51	0.400	--	10.9	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.351	0.200	--	1.49	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.10	0.200	--	4.78	0.869	--		1
4-Ethyltoluene	0.435	0.200	--	2.14	0.983	--		1
1,3,5-Trimethylbenzene	0.872	0.200	--	4.29	0.983	--		1
1,2,4-Trimethylbenzene	4.75	0.200	--	23.4	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	102		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	97		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-07
Client ID: VP-7
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 23:46
Analyst: TS

Date Collected: 12/04/19 12:45
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.82	0.200	--	9.00	0.989	--		1
Chloromethane	0.320	0.200	--	0.661	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.51	5.00	--	12.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.91	1.00	--	9.29	2.38	--		1
Trichlorofluoromethane	0.871	0.200	--	4.89	1.12	--		1
Isopropanol	1.48	0.500	--	3.64	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.610	0.500	--	1.85	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.381	0.200	--	1.19	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.88	0.500	--	5.54	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-07
Client ID: VP-7
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 12:45
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	2.47	0.500	--	7.28	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.464	0.200	--	1.64	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.336	0.200	--	1.07	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.05	0.200	--	7.73	0.754	--		1
2-Hexanone	0.216	0.200	--	0.885	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.583	0.200	--	2.53	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-07
Client ID: VP-7
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 12:45
Date Received: 12/05/19
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								
p/m-Xylene	2.39	0.400	--	10.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.293	0.200	--	1.25	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.962	0.200	--	4.18	0.869	--		1
4-Ethyltoluene	0.350	0.200	--	1.72	0.983	--		1
1,3,5-Trimethylbenzene	0.695	0.200	--	3.42	0.983	--		1
1,2,4-Trimethylbenzene	3.81	0.200	--	18.7	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-08
Client ID: VP-8
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/10/19 00:25
Analyst: TS

Date Collected: 12/04/19 11:20
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	34.9	0.200	--	173	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.52	1.00	--	5.99	2.38	--		1
Trichlorofluoromethane	6.89	0.200	--	38.7	1.12	--		1
Isopropanol	1.23	0.500	--	3.02	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.655	0.500	--	2.28	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.338	0.200	--	1.05	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.25	0.500	--	3.69	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-08
Client ID: VP-8
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:20
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	1.68	0.500	--	4.95	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.235	0.200	--	0.828	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.43	0.200	--	5.39	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.352	0.200	--	1.53	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-08
Client ID: VP-8
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 11:20
Date Received: 12/05/19
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								
p/m-Xylene	1.52	0.400	--	6.60	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.224	0.200	--	0.954	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.677	0.200	--	2.94	0.869	--		1
4-Ethyltoluene	0.259	0.200	--	1.27	0.983	--		1
1,3,5-Trimethylbenzene	0.518	0.200	--	2.55	0.983	--		1
1,2,4-Trimethylbenzene	2.86	0.200	--	14.1	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-09
Client ID: VP-9
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/10/19 01:03
Analyst: TS

Date Collected: 12/05/19 09:50
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.475	0.200	--	2.35	0.989	--		1
Chloromethane	0.508	0.200	--	1.05	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	5.06	5.00	--	9.53	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.03	1.00	--	11.9	2.38	--		1
Trichlorofluoromethane	0.229	0.200	--	1.29	1.12	--		1
Isopropanol	0.941	0.500	--	2.31	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.531	0.500	--	1.84	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.47	0.500	--	4.34	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-09
Client ID: VP-9
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 09:50
Date Received: 12/05/19
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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	1.95	0.500	--	5.75	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.340	0.200	--	1.20	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.226	0.200	--	0.722	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.89	0.200	--	7.12	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.352	0.200	--	1.53	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-09
Client ID: VP-9
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/05/19 09:50
Date Received: 12/05/19
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								
p/m-Xylene	1.54	0.400	--	6.69	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.219	0.200	--	0.932	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.680	0.200	--	2.95	0.869	--		1
4-Ethyltoluene	0.359	0.200	--	1.76	0.983	--		1
1,3,5-Trimethylbenzene	0.575	0.200	--	2.83	0.983	--		1
1,2,4-Trimethylbenzene	3.04	0.200	--	14.9	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	100		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-10
Client ID: VP-10
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 12/10/19 01:41
Analyst: TS

Date Collected: 12/04/19 09:05
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.57	0.200	--	7.76	0.989	--		1
Chloromethane	0.581	0.200	--	1.20	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.08	1.00	--	12.1	2.38	--		1
Trichlorofluoromethane	0.290	0.200	--	1.63	1.12	--		1
Isopropanol	0.725	0.500	--	1.78	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.11	0.500	--	3.36	1.52	--		1
Methylene chloride	0.625	0.500	--	2.17	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.427	0.200	--	1.33	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.15	0.500	--	6.34	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-10
Client ID: VP-10
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY

Date Collected: 12/04/19 09:05
Date Received: 12/05/19
Field Prep: Not Specified

Sample Depth:

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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.383	0.200	--	1.87	0.977	--		1
Tetrahydrofuran	2.69	0.500	--	7.93	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.370	0.200	--	1.30	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.380	0.200	--	1.21	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	7.74	0.200	--	41.6	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.407	0.200	--	1.67	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	2.75	0.200	--	10.4	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	4.33	0.200	--	18.8	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-10
Client ID: VP-10
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 09:05
Date Received: 12/05/19
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								
p/m-Xylene	12.2	0.400	--	53.0	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.279	0.200	--	1.19	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.91	0.200	--	12.6	0.869	--		1
4-Ethyltoluene	0.468	0.200	--	2.30	0.983	--		1
1,3,5-Trimethylbenzene	0.759	0.200	--	3.73	0.983	--		1
1,2,4-Trimethylbenzene	3.82	0.200	--	18.8	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	89		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-11
Client ID: OAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 16:43
Analyst: TS

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.492	0.200	--	2.43	0.989	--		1
Chloromethane	0.515	0.200	--	1.06	0.413	--		1
Freon-114	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
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.67	1.00	--	3.97	2.38	--		1
Trichlorofluoromethane	0.208	0.200	--	1.17	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-11
Client ID: OAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.233	0.200	--	0.744	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	0.326	0.200	--	1.23	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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-11
Client ID: OAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-11
Client ID: OAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 12/09/19 16:43
Analyst: TS

Date Collected: 12/04/19 15:30
Date Received: 12/05/19
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								
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	0.079	0.020	--	0.497	0.126	--		1
Trichloroethene	0.039	0.020	--	0.210	0.107	--		1
Tetrachloroethene	0.043	0.020	--	0.292	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-12
Client ID: IAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 12/09/19 17:21
Analyst: TS

Date Collected: 12/04/19 15:35
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.22	0.200	--	6.03	0.989	--		1
Chloromethane	0.535	0.200	--	1.10	0.413	--		1
Freon-114	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
Ethanol	11.4	5.00	--	21.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	84.3	1.00	--	200	2.38	--		1
Trichlorofluoromethane	0.247	0.200	--	1.39	1.12	--		1
Isopropanol	3.30	0.500	--	8.11	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.827	0.500	--	2.87	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.366	0.200	--	1.14	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.67	0.500	--	4.93	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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-12
Client ID: IAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:35
Date Received: 12/05/19
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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.298	0.200	--	0.952	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	0.343	0.200	--	1.41	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	1.30	0.200	--	4.90	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	11.8	0.200	--	51.3	0.869	--		1
p/m-Xylene	42.4	0.400	--	184	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.698	0.200	--	2.97	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	12.1	0.200	--	52.6	0.869	--		1
4-Ethyltoluene	0.399	0.200	--	1.96	0.983	--		1
1,3,5-Trimethylbenzene	0.768	0.200	--	3.78	0.983	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-12
Client ID: IAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/04/19 15:35
Date Received: 12/05/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	3.19	0.200	--	15.7	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

SAMPLE RESULTS

Lab ID: L1958249-12
Client ID: IAA
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 12/09/19 17:21
Analyst: TS

Date Collected: 12/04/19 15:35
Date Received: 12/05/19
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	0.077	0.020	--	0.484	0.126	--		1
Trichloroethene	12.5	0.020	--	67.2	0.107	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	95		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/09/19 14:37

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): 01-12 Batch: WG1318496-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/09/19 14:37

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): 01-12 Batch: WG1318496-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/09/19 14:37

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): 01-12 Batch: WG1318496-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1958249
Report Date: 12/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 12/09/19 15:15

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): 11-12 Batch: WG1318498-4								
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: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 Batch: WG1318496-3								
Propylene	126		-		70-130	-		
Dichlorodifluoromethane	100		-		70-130	-		
Chloromethane	99		-		70-130	-		
Freon-114	111		-		70-130	-		
Vinyl chloride	121		-		70-130	-		
1,3-Butadiene	106		-		70-130	-		
Bromomethane	121		-		70-130	-		
Chloroethane	124		-		70-130	-		
Ethanol	91		-		40-160	-		
Vinyl bromide	103		-		70-130	-		
Acetone	95		-		40-160	-		
Trichlorofluoromethane	97		-		70-130	-		
Isopropanol	95		-		40-160	-		
1,1-Dichloroethene	109		-		70-130	-		
Tertiary butyl Alcohol	96		-		70-130	-		
Methylene chloride	94		-		70-130	-		
3-Chloropropene	126		-		70-130	-		
Carbon disulfide	85		-		70-130	-		
Freon-113	105		-		70-130	-		
trans-1,2-Dichloroethene	113		-		70-130	-		
1,1-Dichloroethane	118		-		70-130	-		
Methyl tert butyl ether	103		-		70-130	-		
Vinyl acetate	104		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 Batch: WG1318496-3								
2-Butanone	114		-		70-130	-		
cis-1,2-Dichloroethene	119		-		70-130	-		
Ethyl Acetate	122		-		70-130	-		
Chloroform	111		-		70-130	-		
Tetrahydrofuran	112		-		70-130	-		
1,2-Dichloroethane	114		-		70-130	-		
n-Hexane	121		-		70-130	-		
1,1,1-Trichloroethane	116		-		70-130	-		
Benzene	105		-		70-130	-		
Carbon tetrachloride	111		-		70-130	-		
Cyclohexane	117		-		70-130	-		
1,2-Dichloropropane	124		-		70-130	-		
Bromodichloromethane	111		-		70-130	-		
1,4-Dioxane	113		-		70-130	-		
Trichloroethene	119		-		70-130	-		
2,2,4-Trimethylpentane	121		-		70-130	-		
Heptane	118		-		70-130	-		
cis-1,3-Dichloropropene	114		-		70-130	-		
4-Methyl-2-pentanone	122		-		70-130	-		
trans-1,3-Dichloropropene	97		-		70-130	-		
1,1,2-Trichloroethane	119		-		70-130	-		
Toluene	107		-		70-130	-		
2-Hexanone	119		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 Batch: WG1318496-3								
Dibromochloromethane	120		-		70-130	-		
1,2-Dibromoethane	106		-		70-130	-		
Tetrachloroethene	109		-		70-130	-		
Chlorobenzene	109		-		70-130	-		
Ethylbenzene	114		-		70-130	-		
p/m-Xylene	116		-		70-130	-		
Bromoform	122		-		70-130	-		
Styrene	113		-		70-130	-		
1,1,2,2-Tetrachloroethane	120		-		70-130	-		
o-Xylene	120		-		70-130	-		
4-Ethyltoluene	111		-		70-130	-		
1,3,5-Trimethylbenzene	118		-		70-130	-		
1,2,4-Trimethylbenzene	121		-		70-130	-		
Benzyl chloride	113		-		70-130	-		
1,3-Dichlorobenzene	125		-		70-130	-		
1,4-Dichlorobenzene	120		-		70-130	-		
1,2-Dichlorobenzene	121		-		70-130	-		
1,2,4-Trichlorobenzene	126		-		70-130	-		
Hexachlorobutadiene	121		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 11-12 Batch: WG1318498-3								
Vinyl chloride	113		-		70-130	-		25
1,1-Dichloroethene	104		-		70-130	-		25
cis-1,2-Dichloroethene	112		-		70-130	-		25
1,1,1-Trichloroethane	109		-		70-130	-		25
Carbon tetrachloride	102		-		70-130	-		25
Trichloroethene	113		-		70-130	-		25
Tetrachloroethene	105		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1318496-5 QC Sample: L1958249-12 Client ID: IAA						
Dichlorodifluoromethane	1.22	1.19	ppbV	2		25
Chloromethane	0.535	0.526	ppbV	2		25
Freon-114	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
Ethanol	11.4	11.3	ppbV	1		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	84.3	83.2	ppbV	1		25
Trichlorofluoromethane	0.247	0.244	ppbV	1		25
Isopropanol	3.30	3.32	ppbV	1		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	0.827	0.807	ppbV	2		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.366	0.435	ppbV	17		25
Freon-113	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
2-Butanone	1.67	1.70	ppbV	2		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1318496-5 QC Sample: L1958249-12 Client ID: IAA						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	0.203	ppbV	NC		25
Benzene	0.298	0.296	ppbV	1		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	0.343	0.348	ppbV	1		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	1.30	1.34	ppbV	3		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	11.8	12.0	ppbV	2		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1318496-5 QC Sample: L1958249-12 Client ID: IAA						
p/m-Xylene	42.4	42.6	ppbV	0		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	0.698	0.738	ppbV	6		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	12.1	12.3	ppbV	2		25
4-Ethyltoluene	0.399	0.436	ppbV	9		25
1,3,5-Trimethylbenzene	0.768	0.804	ppbV	5		25
1,2,4-Trimethylbenzene	3.19	3.40	ppbV	6		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 11-12 QC Batch ID: WG1318498-5 QC Sample: L1958249-12 Client ID: IAA						
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	0.077	0.079	ppbV	3		25
Trichloroethene	12.5	12.5	ppbV	0		25
Tetrachloroethene	0.045	0.049	ppbV	9		25

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L1958249

Report Date: 12/10/19

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
L1958249-01	VP-1	0765	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	61	52
L1958249-01	VP-1	3221	2.7L Can	11/27/19	307291	L1950702-08	Pass	-29.5	-1.8	-	-	-	-
L1958249-02	VP-2	01550	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	37	3
L1958249-02	VP-2	3211	2.7L Can	11/27/19	307291	L1950702-02	Pass	-29.4	-7.9	-	-	-	-
L1958249-03	VP-3	0798	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	41.3	14
L1958249-03	VP-3	193	2.7L Can	11/27/19	307291	L1955556-02	Pass	-28.0	-5.8	-	-	-	-
L1958249-04	VP-4	01136	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	42.2	16
L1958249-04	VP-4	2188	2.7L Can	11/27/19	307291	L1955556-02	Pass	-29.7	-8.1	-	-	-	-
L1958249-05	VP-5	0953	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	43	18
L1958249-05	VP-5	2438	2.7L Can	11/27/19	307291	L1955556-02	Pass	-29.3	-7.5	-	-	-	-
L1958249-06	VP-6	01171	Flow 4	11/27/19	307291		-	-	-	Pass	36.0	40.4	12
L1958249-06	VP-6	3218	2.7L Can	11/27/19	307291	L1950702-05	Pass	-29.6	-4.4	-	-	-	-
L1958249-07	VP-7	01396	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	38.9	8
L1958249-07	VP-7	3208	2.7L Can	11/27/19	307291	L1950702-10	Pass	-29.6	-7.5	-	-	-	-
L1958249-08	VP-8	01450	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	42.8	17

Project Name: RPC

Lab Number: L1958249

Project Number: 12.0076555.02

Report Date: 12/10/19

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
L1958249-08	VP-8	3212	2.7L Can	11/27/19	307291	L1950702-07	Pass	-29.5	-5.5	-	-	-	-
L1958249-09	VP-9	01462	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	41.5	14
L1958249-09	VP-9	3233	2.7L Can	11/27/19	307291	L1950702-03	Pass	-29.7	-3.5	-	-	-	-
L1958249-10	VP-10	01082	Flow 2	11/27/19	307291		-	-	-	Pass	36.0	41.5	14
L1958249-10	VP-10	3220	2.7L Can	11/27/19	307291	L1950702-09	Pass	-29.3	-4.7	-	-	-	-
L1958249-11	OAA	0238	Flow 5	11/27/19	307291		-	-	-	Pass	10.0	8.8	13
L1958249-11	OAA	2927	6.0L Can	11/27/19	307291	L1955556-03	Pass	-29.6	-6.5	-	-	-	-
L1958249-12	IAA	0045	Flow 1	11/27/19	307291		-	-	-	Pass	10.0	10.4	4
L1958249-12	IAA	790	6.0L Can	11/27/19	307291	L1956216-02	Pass	-29.5	-8.1	-	-	-	-

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 17:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	17.1	5.00	--	22.4	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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 17:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-02
Client ID: CAN 3211
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 18:12
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	16.6	5.00	--	21.8	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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 18:12
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-03
Client ID: CAN 3233
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 19:16
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	23.7	5.00	--	31.1	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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 19:16
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-05
Client ID: CAN 3218
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 20:20
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	45.7	5.00	--	59.9	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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 20:20
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-07
Client ID: CAN 3212
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 20:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	14.9	5.00	--	19.5	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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 20:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-08
Client ID: CAN 3221
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 21:24
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	56.4	5.00	--	73.9	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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 21:24
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-09
Client ID: CAN 3220
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/08/19 21:56
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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	18.8	5.00	--	24.6	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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	87		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/08/19 21:56
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1950702

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1950702
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1950702-10
Client ID: CAN 3208
Sample Location:

Date Collected: 10/25/19 16:00
Date Received: 10/28/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/20/19 18:16
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1955556

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/20/19 18:16
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-02
Client ID: CAN 415 SHELF 2
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/20/19 18:55
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	81		60-140

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/20/19 18:55
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

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

Lab Number: L1955556
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1955556-03
Client ID: CAN 1614 SHELF 46
Sample Location:

Date Collected: 11/19/19 16:00
Date Received: 11/20/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	82		60-140

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

Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 11/22/19 18:02
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140

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

Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 11/22/19 18:02
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1956216

Project Number: CANISTER QC BAT **Report Date:** 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1956216
Report Date: 12/10/19

Air Canister Certification Results

Lab ID: L1956216-02
Client ID: CAN 1542 SHELF 48
Sample Location:

Date Collected: 11/21/19 16:00
Date Received: 11/22/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1958249
Report Date: 12/10/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1958249-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-03A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-04A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-05A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-06A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-07A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-08A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-09A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-10A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L1958249-11A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L1958249-12A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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

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

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

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.

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

Data Qualifiers

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1958249
Project Number:	12.0076555.02	**Report Date:**	12/10/19

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

AIR ANALYSIS

PAGE 1 OF 2

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab: 12/6/19

ALPHA Job #: L1958249

Client Information

Client: GZA GeoEnvironmental
Address: 55 Lane Road
Fairfield, NJ
Phone: 973-897-4036
Fax: Lindsay.Nunes@gza.com
Email: David.Winslow@gza.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: 140 Old Orangeburg Rd
Project #: 12.0076555.02
Project Manager: Mindy Sayles / David Winslow
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
NYS DOH		Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ANALYSIS: TO-15 | TO-15 SIM | APH (Subtract Non-petroleum HCs ☐) | Fixed Gases | Sulfides & Mercaptans by TO-15

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	Sample Comments (i.e. PID)
58249-01	VP-1	12/4/19	10:38	11:22	-29.58	-1.78	SV	MD	2.7	3221	0765	X	
-02	VP-2	12/4/19	10:07	11:05	-29.00	-8.23	SV	MD	2.7	3211	01550	X	
-03	VP-3	12/5/19	11:20	12:20	-27.06	-5.92	SV	MD	2.7	193	0798	X	
-04	VP-4	12/4/19	14:34	15:30	-29.71	-8.20	SV	MD	2.7	2158	01136	X	
-05	VP-5	12/4/19	14:45	15:40	-29.37	-7.60	SV	MD	2.7	2438	0953	X	
-06	VP-6	12/5/19	10:09	11:07	-30.10	-4.42	SV	MD	2.7	3218	01171	X	
-07	VP-7	12/4/19	11:50	12:45	-7.69	-29.23	SV	MD	2.7	3208	01396	X	
-08	VP-8	12/4/19	10:23	11:20	-29.55	-6.08	SV	MD	2.7	3212	01450	X	
-09	VP-9	12/5/19	8:53	9:50	-29.86	-3.82	SV	MD	2.7	3233	01462	X	
-10	VP-10	12/4/19	8:05	9:05	-29.63	-5.14	SV	MD	2.7	3220	01082	X	

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature] GZA	12/5/19 14:05	Melissa	12/05/19 14:05
Melissa	12/05/19 17:33	[signature]	12/6/19 0900

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

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

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 12/6/19

ALPHA Job #: L1958349

Client Information

Client: GZA GeoEnvironmental
Address: 55 Lane Road
Fairfield, NJ
Phone: 973-897-4036
Fax: Lindsay.Nunes@gza.com
Email: David.Winslow@gza.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: 140 Old Orangeburg Road
Project #: 12.0076555.02
Project Manager: Mindy Sayes / David Winslow
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
NYS DoH		Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION 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)
58349-11	OAA	12/4/19	7:43	15:30	-29.96	-7.83	AA	MD	6L	2927	0238	X					
-12	IAA	12/4/19	7:45	15:35	-27.87	-10.39	AA	MD	6L	790	0045	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:
GZA	12/5/19 1405		
	12/6/19 17:33		12/06/19 14:05
			12/6/19 0900

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

ANALYTICAL REPORT

Lab Number:	L1961731
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Mindy Sayres
Phone:	(973) 774-3300
Project Name:	RPC
Project Number:	12.0076555.02
Report Date:	12/30/19

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

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

Six Park Row, Mansfield, MA 02048
508-261-7467 (Fax) -- -- - emccarter@mansfieldma.com

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1961731-01	IAA 1	AIR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/26/19 15:16	12/26/19
L1961731-02	IAA 2	AIR	140 OLD ORANGEBURG RD., ORANGEBURG, NY	12/26/19 15:15	12/26/19

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on December 23, 2019. The canister certification results are provided as an addendum.

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: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 12/30/19

AIR

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-01
Client ID: IAA 1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 12/28/19 20:10
Analyst: RY

Date Collected: 12/26/19 15:16
Date Received: 12/26/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.09	0.200	--	5.39	0.989	--		1
Chloromethane	0.551	0.200	--	1.14	0.413	--		1
Freon-114	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
Ethanol	7.85	5.00	--	14.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	18.2	1.00	--	43.2	2.38	--		1
Trichlorofluoromethane	0.263	0.200	--	1.48	1.12	--		1
Isopropanol	2.37	0.500	--	5.83	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.648	0.500	--	2.25	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.44	0.500	--	4.25	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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-01
Client ID: IAA 1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY

Date Collected: 12/26/19 15:16
Date Received: 12/26/19
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.835	0.200	--	2.94	0.705	--		1
Benzene	0.461	0.200	--	1.47	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	0.315	0.200	--	1.29	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	1.24	0.200	--	4.67	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	5.88	0.200	--	25.5	0.869	--		1
p/m-Xylene	24.0	0.400	--	104	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.608	0.200	--	2.59	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	7.50	0.200	--	32.6	0.869	--		1
4-Ethyltoluene	0.424	0.200	--	2.08	0.983	--		1
1,3,5-Trimethylbenzene	0.862	0.200	--	4.24	0.983	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-01
Client ID: IAA 1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/26/19 15:16
Date Received: 12/26/19
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								
1,2,4-Trimethylbenzene	3.76	0.200	--	18.5	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-01
Client ID: IAA 1
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 12/28/19 20:10
Analyst: TS

Date Collected: 12/26/19 15:16
Date Received: 12/26/19
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	0.106	0.020	--	0.667	0.126	--		1
Trichloroethene	7.24	0.020	--	38.9	0.107	--		1
Tetrachloroethene	0.041	0.020	--	0.278	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-02
Client ID: IAA 2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 12/28/19 20:48
Analyst: RY

Date Collected: 12/26/19 15:15
Date Received: 12/26/19
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.94	0.200	--	9.59	0.989	--		1
Chloromethane	0.552	0.200	--	1.14	0.413	--		1
Freon-114	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
Ethanol	13.4	5.00	--	25.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	38.4	1.00	--	91.2	2.38	--		1
Trichlorofluoromethane	0.283	0.200	--	1.59	1.12	--		1
Isopropanol	3.31	0.500	--	8.14	1.23	--		1
Tertiary butyl Alcohol	0.740	0.500	--	2.24	1.52	--		1
Methylene chloride	1.09	0.500	--	3.79	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.65	0.500	--	7.82	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.580	0.500	--	1.71	1.47	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-02
Client ID: IAA 2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY

Date Collected: 12/26/19 15:15
Date Received: 12/26/19
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.225	0.200	--	0.793	0.705	--		1
Benzene	0.644	0.200	--	2.06	0.639	--		1
Cyclohexane	0.289	0.200	--	0.995	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	0.484	0.200	--	1.98	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	2.52	0.200	--	9.50	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	4.62	0.200	--	20.1	0.869	--		1
p/m-Xylene	19.2	0.400	--	83.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	1.16	0.200	--	4.94	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	5.80	0.200	--	25.2	0.869	--		1
4-Ethyltoluene	0.237	0.200	--	1.17	0.983	--		1
1,3,5-Trimethylbenzene	0.349	0.200	--	1.72	0.983	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-02
Client ID: IAA 2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:

Date Collected: 12/26/19 15:15
Date Received: 12/26/19
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								
1,2,4-Trimethylbenzene	1.36	0.200	--	6.69	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

SAMPLE RESULTS

Lab ID: L1961731-02
Client ID: IAA 2
Sample Location: 140 OLD ORANGEBURG RD., ORANGEBURG, NY
Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 12/28/19 20:48
Analyst: TS

Date Collected: 12/26/19 15:15
Date Received: 12/26/19
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	0.089	0.020	--	0.560	0.126	--		1
Trichloroethene	6.10	0.020	--	32.8	0.107	--		1
Tetrachloroethene	0.030	0.020	--	0.203	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/28/19 14:41

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): 01-02 Batch: WG1325566-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/28/19 14:41

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): 01-02 Batch: WG1325566-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 12/28/19 14:41

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): 01-02 Batch: WG1325566-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L1961731
Report Date: 12/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 12/28/19 15:19

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): 01-02 Batch: WG1325567-4								
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: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1325566-3								
Dichlorodifluoromethane	99		-		70-130	-		
Chloromethane	98		-		70-130	-		
Freon-114	107		-		70-130	-		
Vinyl chloride	115		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Bromomethane	113		-		70-130	-		
Chloroethane	117		-		70-130	-		
Ethanol	90		-		40-160	-		
Vinyl bromide	97		-		70-130	-		
Acetone	91		-		40-160	-		
Trichlorofluoromethane	93		-		70-130	-		
Isopropanol	89		-		40-160	-		
1,1-Dichloroethene	106		-		70-130	-		
Tertiary butyl Alcohol	95		-		70-130	-		
Methylene chloride	93		-		70-130	-		
3-Chloropropene	117		-		70-130	-		
Carbon disulfide	82		-		70-130	-		
Freon-113	88		-		70-130	-		
trans-1,2-Dichloroethene	107		-		70-130	-		
1,1-Dichloroethane	113		-		70-130	-		
Methyl tert butyl ether	99		-		70-130	-		
2-Butanone	110		-		70-130	-		
cis-1,2-Dichloroethene	112		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1325566-3								
Ethyl Acetate	114		-		70-130	-		
Chloroform	104		-		70-130	-		
Tetrahydrofuran	108		-		70-130	-		
1,2-Dichloroethane	109		-		70-130	-		
n-Hexane	118		-		70-130	-		
1,1,1-Trichloroethane	117		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	109		-		70-130	-		
Cyclohexane	114		-		70-130	-		
1,2-Dichloropropane	124		-		70-130	-		
Bromodichloromethane	109		-		70-130	-		
1,4-Dioxane	111		-		70-130	-		
Trichloroethene	118		-		70-130	-		
2,2,4-Trimethylpentane	119		-		70-130	-		
Heptane	119		-		70-130	-		
cis-1,3-Dichloropropene	112		-		70-130	-		
4-Methyl-2-pentanone	122		-		70-130	-		
trans-1,3-Dichloropropene	96		-		70-130	-		
1,1,2-Trichloroethane	118		-		70-130	-		
Toluene	105		-		70-130	-		
2-Hexanone	119		-		70-130	-		
Dibromochloromethane	117		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L1961731

Report Date: 12/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1325566-3								
Tetrachloroethene	103		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	111		-		70-130	-		
p/m-Xylene	113		-		70-130	-		
Bromoform	114		-		70-130	-		
Styrene	108		-		70-130	-		
1,1,2,2-Tetrachloroethane	117		-		70-130	-		
o-Xylene	119		-		70-130	-		
4-Ethyltoluene	106		-		70-130	-		
1,3,5-Trimethylbenzene	114		-		70-130	-		
1,2,4-Trimethylbenzene	118		-		70-130	-		
Benzyl chloride	107		-		70-130	-		
1,3-Dichlorobenzene	120		-		70-130	-		
1,4-Dichlorobenzene	117		-		70-130	-		
1,2-Dichlorobenzene	116		-		70-130	-		
1,2,4-Trichlorobenzene	125		-		70-130	-		
Hexachlorobutadiene	118		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1325567-3								
Vinyl chloride	106		-		70-130	-		25
1,1-Dichloroethene	100		-		70-130	-		25
cis-1,2-Dichloroethene	107		-		70-130	-		25
1,1,1-Trichloroethane	111		-		70-130	-		25
Carbon tetrachloride	101		-		70-130	-		25
Trichloroethene	112		-		70-130	-		25
Tetrachloroethene	100		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1325566-5 QC Sample: L1961731-02 Client ID: IAA 2						
Dichlorodifluoromethane	1.94	1.95	ppbV	1		25
Chloromethane	0.552	0.557	ppbV	1		25
Freon-114	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
Ethanol	13.4	14.0	ppbV	4		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	38.4	37.6	ppbV	2		25
Trichlorofluoromethane	0.283	0.285	ppbV	1		25
Isopropanol	3.31	3.36	ppbV	1		25
Tertiary butyl Alcohol	0.740	0.750	ppbV	1		25
Methylene chloride	1.09	1.09	ppbV	0		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
Freon-113	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
2-Butanone	2.65	2.68	ppbV	1		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1325566-5 QC Sample: L1961731-02 Client ID: IAA 2						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	0.580	0.584	ppbV	1		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.225	0.230	ppbV	2		25
Benzene	0.644	0.640	ppbV	1		25
Cyclohexane	0.289	0.295	ppbV	2		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	0.484	0.484	ppbV	0		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	2.52	2.54	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	4.62	4.65	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1325566-5 QC Sample: L1961731-02 Client ID: IAA 2						
p/m-Xylene	19.2	19.5	ppbV	2		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	1.16	1.18	ppbV	2		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	5.80	5.88	ppbV	1		25
4-Ethyltoluene	0.237	0.245	ppbV	3		25
1,3,5-Trimethylbenzene	0.349	0.353	ppbV	1		25
1,2,4-Trimethylbenzene	1.36	1.37	ppbV	1		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
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1325567-5 QC Sample: L1961731-02 Client ID: IAA 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	0.089	0.080	ppbV	11		25
Trichloroethene	6.10	6.05	ppbV	1		25
Tetrachloroethene	0.030	0.036	ppbV	18		25

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L1961731

Report Date: 12/30/19

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
L1961731-01	IAA 1	01534	Flow 3	12/23/19	310410		-	-	-	Pass	10.0	11.6	15
L1961731-01	IAA 1	2833	6.0L Can	12/23/19	310410	L1960550-08	Pass	-29.5	-6..3	-	-	-	-
L1961731-02	IAA 2	01445	Flow 3	12/23/19	310410		-	-	-	Pass	10.0	10.8	8
L1961731-02	IAA 2	3146	6.0L Can	12/23/19	310410	L1960550-08	Pass	-29.5	-4.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1960550

Project Number: CANISTER QC BAT **Report Date:** 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 12/18/19 22:18
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

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

Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 12/18/19 22:18
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1960550
Report Date: 12/30/19

Air Canister Certification Results

Lab ID: L1960550-08
Client ID: CAN 2101 SHELF 56
Sample Location:

Date Collected: 12/18/19 09:00
Date Received: 12/18/19
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	95		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L1961731
Report Date: 12/30/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1961731-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L1961731-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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

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

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

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.

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

Data Qualifiers

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L1961731
Project Number:	12.0076555.02	**Report Date:**	12/30/19

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

AIR ANALYSIS

ALPHA ANALYTICAL — CHAIN OF CUSTODY

PAGE 1 OF 1

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

Date Rec'd in Lab: 12/27/19

ALPHA Job #: L1961731

Client Information

Client: GZA GeoEnvironmental
Address: 55 Lane Road
Fairfield, NJ 07004
Phone: 973-774-3300
Fax: Lindsay.nunes@gza.com
Email: David.winslow@gza.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: 140 Old Orangeburg Rd.
Project #: 12.0076555.02
Project Manager: Mindy Sayres
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: 12/30/2019 Time: 15:30

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
NYS DOH		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)
L1731-01	IAA 1	12/26/19	07:28	15:16	-30.59	-6.89	AA	JR	6L	2833	0.534	X	X				
02	IAA 2	12/26/19	07:37	15:15	-30.66	-5.71	AA	JR	6L	3146	0.443	X	X				

ANALYSIS

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

Container Type

Relinquished By:	Date/Time:	Received By:	Date/Time:
D. Santos AAL	12/26/19 1700	D. Santos AAL	12/26/19 1700
AAL	12/27/19 1800		12/26
12/27		AAL	12/27/19 0100

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

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

ANALYTICAL REPORT

Lab Number:	L2001552
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Lindsay Nunes
Phone:	(973) 774-3300
Project Name:	RPC
Project Number:	12.0076555.02
Report Date:	01/15/20

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

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

Six Park Row, Mansfield, MA 02048
508-261-7467 (Fax) -- -- - emccarter@mansfieldma.com

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2001552-01	VISITORS BLDG-IAA-01	AIR	ORANGEBURG N.Y.	01/13/20 14:40	01/13/20

Project Name:	RPC	**Lab Number:**	L2001552
Project Number:	12.0076555.02	**Report Date:**	01/15/20

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	RPC	**Lab Number:**	L2001552
Project Number:	12.0076555.02	**Report Date:**	01/15/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on January 9, 2020. The canister certification results are provided as an addendum.

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: 01/15/20

AIR

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

SAMPLE RESULTS

Lab ID: L2001552-01
Client ID: VISITORS BLDG-IAA-01
Sample Location: ORANGEBURG N.Y.

Date Collected: 01/13/20 14:40
Date Received: 01/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/14/20 17:45
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.847	0.200	--	4.19	0.989	--		1
Chloromethane	0.427	0.200	--	0.882	0.413	--		1
Freon-114	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
Ethanol	7.65	5.00	--	14.4	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.61	1.00	--	8.58	2.38	--		1
Trichlorofluoromethane	0.201	0.200	--	1.13	1.12	--		1
Isopropanol	0.585	0.500	--	1.44	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

SAMPLE RESULTS

Lab ID: L2001552-01
Client ID: VISITORS BLDG-IAA-01
Sample Location: ORANGEBURG N.Y.

Date Collected: 01/13/20 14:40
Date Received: 01/13/20
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
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	0.464	0.200	--	1.75	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	5.27	0.200	--	22.9	0.869	--		1
p/m-Xylene	20.3	0.400	--	88.2	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.291	0.200	--	1.24	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	6.65	0.200	--	28.9	0.869	--		1
4-Ethyltoluene	0.413	0.200	--	2.03	0.983	--		1
1,3,5-Trimethylbenzene	0.660	0.200	--	3.24	0.983	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

SAMPLE RESULTS

Lab ID: L2001552-01
Client ID: VISITORS BLDG-IAA-01
Sample Location: ORANGEBURG N.Y.

Date Collected: 01/13/20 14:40
Date Received: 01/13/20
Field Prep: Not Specified

Sample Depth:

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								
1,2,4-Trimethylbenzene	4.05	0.200	--	19.9	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	101		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

SAMPLE RESULTS

Lab ID: L2001552-01
Client ID: VISITORS BLDG-IAA-01
Sample Location: ORANGEBURG N.Y.

Date Collected: 01/13/20 14:40
Date Received: 01/13/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/14/20 17:45
Analyst: EW

	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	0.080	0.020	--	0.503	0.126	--		1
Trichloroethene	3.50	0.020	--	18.8	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2001552
Report Date: 01/15/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/14/20 14:26

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 Batch: WG1330017-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2001552
Report Date: 01/15/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/14/20 14:26

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 Batch: WG1330017-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2001552
Report Date: 01/15/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/14/20 14:26

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 Batch: WG1330017-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2001552
Report Date: 01/15/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 01/14/20 15:05

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 Batch: WG1330018-4								
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: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1330017-3								
Dichlorodifluoromethane	101		-		70-130	-		
Chloromethane	85		-		70-130	-		
Freon-114	99		-		70-130	-		
Vinyl chloride	94		-		70-130	-		
1,3-Butadiene	98		-		70-130	-		
Bromomethane	91		-		70-130	-		
Chloroethane	92		-		70-130	-		
Ethanol	100		-		40-160	-		
Vinyl bromide	81		-		70-130	-		
Acetone	78		-		40-160	-		
Trichlorofluoromethane	94		-		70-130	-		
Isopropanol	75		-		40-160	-		
1,1-Dichloroethene	99		-		70-130	-		
Tertiary butyl Alcohol	86		-		70-130	-		
Methylene chloride	89		-		70-130	-		
3-Chloropropene	85		-		70-130	-		
Carbon disulfide	81		-		70-130	-		
Freon-113	87		-		70-130	-		
trans-1,2-Dichloroethene	89		-		70-130	-		
1,1-Dichloroethane	95		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
2-Butanone	92		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1330017-3								
Ethyl Acetate	104		-		70-130	-		
Chloroform	116		-		70-130	-		
Tetrahydrofuran	90		-		70-130	-		
1,2-Dichloroethane	108		-		70-130	-		
n-Hexane	111		-		70-130	-		
1,1,1-Trichloroethane	108		-		70-130	-		
Benzene	112		-		70-130	-		
Carbon tetrachloride	125		-		70-130	-		
Cyclohexane	114		-		70-130	-		
1,2-Dichloropropane	99		-		70-130	-		
Bromodichloromethane	123		-		70-130	-		
1,4-Dioxane	118		-		70-130	-		
Trichloroethene	103		-		70-130	-		
2,2,4-Trimethylpentane	121		-		70-130	-		
Heptane	96		-		70-130	-		
cis-1,3-Dichloropropene	115		-		70-130	-		
4-Methyl-2-pentanone	101		-		70-130	-		
trans-1,3-Dichloropropene	98		-		70-130	-		
1,1,2-Trichloroethane	106		-		70-130	-		
Toluene	90		-		70-130	-		
2-Hexanone	102		-		70-130	-		
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	103		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1330017-3								
Tetrachloroethene	90		-		70-130	-		
Chlorobenzene	105		-		70-130	-		
Ethylbenzene	98		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	99		-		70-130	-		
Styrene	101		-		70-130	-		
1,1,2,2-Tetrachloroethane	108		-		70-130	-		
o-Xylene	97		-		70-130	-		
4-Ethyltoluene	102		-		70-130	-		
1,3,5-Trimethylbenzene	77		-		70-130	-		
1,2,4-Trimethylbenzene	107		-		70-130	-		
Benzyl chloride	109		-		70-130	-		
1,3-Dichlorobenzene	107		-		70-130	-		
1,4-Dichlorobenzene	110		-		70-130	-		
1,2-Dichlorobenzene	108		-		70-130	-		
1,2,4-Trichlorobenzene	113		-		70-130	-		
Hexachlorobutadiene	101		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L2001552

Report Date: 01/15/20

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 Batch: WG1330018-3								
Vinyl chloride	89		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
cis-1,2-Dichloroethene	97		-		70-130	-		25
1,1,1-Trichloroethane	104		-		70-130	-		25
Carbon tetrachloride	117		-		70-130	-		25
Trichloroethene	97		-		70-130	-		25
Tetrachloroethene	91		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1330017-5 QC Sample: L2001552-01 Client ID: VISITORS BLDG-IAA-01						
Dichlorodifluoromethane	0.847	0.785	ppbV	8		25
Chloromethane	0.427	0.407	ppbV	5		25
Freon-114	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
Ethanol	7.65	7.34	ppbV	4		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	3.61	3.53	ppbV	2		25
Trichlorofluoromethane	0.201	ND	ppbV	NC		25
Isopropanol	0.585	0.597	ppbV	2		25
Tertiary 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
Freon-113	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
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1330017-5 QC Sample: L2001552-01 Client ID: VISITORS BLDG-IAA-01						
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	0.464	0.466	ppbV	0		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	5.27	5.18	ppbV	2		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1330017-5 QC Sample: L2001552-01 Client ID: VISITORS BLDG-IAA-01						
p/m-Xylene	20.3	19.9	ppbV	2		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	0.291	0.275	ppbV	6		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	6.65	6.56	ppbV	1		25
4-Ethyltoluene	0.413	0.402	ppbV	3		25
1,3,5-Trimethylbenzene	0.660	0.655	ppbV	1		25
1,2,4-Trimethylbenzene	4.05	3.90	ppbV	4		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: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1330018-5 QC Sample: L2001552-01 Client ID: VISITORS BLDG-IAA-01						
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	0.080	0.087	ppbV	8		25
Trichloroethene	3.50	3.33	ppbV	5		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L2001552

Report Date: 01/15/20

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
L2001552-01	VISITORS BLDG-IAA-01	0048	Flow 4	01/09/20	311408		-	-	-	Pass	10.0	9.0	11
L2001552-01	VISITORS BLDG-IAA-01	978	6.0L Can	01/09/20	311408	L2000005-03	Pass	-29.3	0.0	-	-	-	-

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

Lab Number: L2000005
Report Date: 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/02/20 20:23
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L2000005
Report Date: 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2000005

Project Number: CANISTER QC BAT **Report Date:** 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

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

Lab Number: L2000005
Report Date: 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

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

Lab Number: L2000005
Report Date: 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2000005

Project Number: CANISTER QC BAT **Report Date:** 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/02/20 20:23
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2000005

Project Number: CANISTER QC BAT **Report Date:** 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2000005
Report Date: 01/15/20

Air Canister Certification Results

Lab ID: L2000005-03
Client ID: CAN 922 SHELF 51
Sample Location:

Date Collected: 12/31/19 16:00
Date Received: 01/02/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	91		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2001552
Report Date: 01/15/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2001552-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L2001552
Project Number:	12.0076555.02	**Report Date:**	01/15/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2001552
Project Number:	12.0076555.02	**Report Date:**	01/15/20

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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

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

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

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2001552
Project Number:	12.0076555.02	**Report Date:**	01/15/20

Data Qualifiers

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.

Report Format: Data Usability Report

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

AIR ANALYSIS

ALPHA ANALYTICAL — CHAIN OF CUSTODY

PAGE 1 OF 1

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

Date Rec'd in Lab: 1/14/20

ALPHA Job #: L2001552

Client Information

Client: G2A
Address: 55 LANE ROAD FAIRFIELD N.J. 07004
Phone: 973-274-3300
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: ORANGEBURG N.Y.
Project #: 12.0076555.02
Project Manager: LINDSEY NUNES
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 2 DAY Time: BY 2:00 PM

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	ANALYSIS TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
01552-01	VISITORS BLDG - IAA-01	1-13-20	06:40	14:40	-31.10	-0.88	AA	JR	6L	478	0048	X	X				

*SAMPLE MATRIX CODES

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

Container Type: C C / S S

Relinquished By:	Date/Time	Received By:	Date/Time:
D. Santos AAL	1-13-20 1512	D. Santos AAL	1/13/20 1512
AAL	1/13/20 1600		
	1/14 0100	AAL	1/14/20 0100

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

ANALYTICAL REPORT

Lab Number:	L2003767
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Lindsay Nunes
Phone:	(973) 774-3300
Project Name:	RPC
Project Number:	12.0076555
Report Date:	01/31/20

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

Six Park Row, Mansfield, MA 02048
508-261-7467 (Fax) -- -- - emccarter@mansfieldma.com

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2003767-01	VISITORS BLDG-OAA-01	AIR	OLD ORANGEBURG RD.	01/27/20 14:45	01/27/20
L2003767-02	VISITORS BLDG-IAA-02	AIR	OLD ORANGEBURG RD.	01/27/20 14:46	01/27/20
L2003767-03	VISITORS BLDG-VP-10	SOIL_VAPOR	OLD ORANGEBURG RD.	01/27/20 10:30	01/27/20

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on January 24, 2020. The canister certification results are provided as an addendum.

The WG1335509-3 LCS recovery for 1,2,4-trichlorobenzene (132%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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: 01/31/20

AIR

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-01
Client ID: VISITORS BLDG-OAA-01
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:45
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/30/20 18:51
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.525	0.200	--	2.60	0.989	--		1
Chloromethane	0.495	0.200	--	1.02	0.413	--		1
Freon-114	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
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.85	1.00	--	4.39	2.38	--		1
Trichlorofluoromethane	0.205	0.200	--	1.15	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-01
Client ID: VISITORS BLDG-OAA-01
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:45
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
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

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-01
Client ID: VISITORS BLDG-OAA-01
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:45
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	62		60-140
Bromochloromethane	81		60-140
chlorobenzene-d5	73		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-01
Client ID: VISITORS BLDG-OAA-01
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:45
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/30/20 18:51
Analyst: EW

	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	0.074	0.020	--	0.465	0.126	--		1
Trichloroethene	0.066	0.020	--	0.355	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	66		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	73		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-02
Client ID: VISITORS BLDG-IAA-02
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:46
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/30/20 19:31
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	1.16	0.200	--	5.74	0.989	--		1
Chloromethane	0.525	0.200	--	1.08	0.413	--		1
Freon-114	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
Ethanol	19.8	5.00	--	37.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	6.78	1.00	--	16.1	2.38	--		1
Trichlorofluoromethane	0.240	0.200	--	1.35	1.12	--		1
Isopropanol	0.662	0.500	--	1.63	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.520	0.500	--	1.53	1.47	--		1
Ethyl Acetate	0.656	0.500	--	2.36	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-02
Client ID: VISITORS BLDG-IAA-02
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:46
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.226	0.200	--	0.722	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	0.631	0.200	--	2.38	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	1.41	0.200	--	6.12	0.869	--		1
p/m-Xylene	5.97	0.400	--	25.9	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.264	0.200	--	1.12	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.01	0.200	--	8.73	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	0.388	0.200	--	1.91	0.983	--		1

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-02
Client ID: VISITORS BLDG-IAA-02
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:46
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
1,2,4-Trimethylbenzene	1.68	0.200	--	8.26	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	71		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-02
Client ID: VISITORS BLDG-IAA-02
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 14:46
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/30/20 19:31
Analyst: EW

	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	0.075	0.020	--	0.472	0.126	--		1
Trichloroethene	3.32	0.020	--	17.8	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	74		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-03
Client ID: VISITORS BLDG-VP-10
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 10:30
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 01/31/20 04:36
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	2.85	0.200	--	14.1	0.989	--		1
Chloromethane	0.534	0.200	--	1.10	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	6.96	5.00	--	13.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	8.21	1.00	--	19.5	2.38	--		1
Trichlorofluoromethane	0.255	0.200	--	1.43	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.608	0.500	--	1.84	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.266	0.200	--	0.828	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.899	0.500	--	2.65	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-03
Client ID: VISITORS BLDG-VP-10
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 10:30
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.316	0.200	--	1.54	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.505	0.200	--	1.78	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.433	0.200	--	1.38	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	2.71	0.200	--	14.6	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.232	0.200	--	0.951	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	1.87	0.200	--	7.05	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.87	0.200	--	8.12	0.869	--		1

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

SAMPLE RESULTS

Lab ID: L2003767-03
Client ID: VISITORS BLDG-VP-10
Sample Location: OLD ORANGEBURG RD.

Date Collected: 01/27/20 10:30
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
p/m-Xylene	7.50	0.400	--	32.6	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.343	0.200	--	1.46	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.64	0.200	--	11.5	0.869	--		1
4-Ethyltoluene	0.204	0.200	--	1.00	0.983	--		1
1,3,5-Trimethylbenzene	0.549	0.200	--	2.70	0.983	--		1
1,2,4-Trimethylbenzene	2.47	0.200	--	12.1	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	69		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	79		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/30/20 14:50

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: WG1335509-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
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

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/30/20 14:50

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: WG1335509-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: RPC
Project Number: 12.0076555
Lab Number: L2003767
Report Date: 01/31/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 01/30/20 14:50

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: WG1335509-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: RPC
Project Number: 12.0076555
Lab Number: L2003767
Report Date: 01/31/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 01/30/20 15:29

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): 01-02 Batch: WG1335510-4								
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: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

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: WG1335509-3								
Dichlorodifluoromethane	100		-		70-130	-		
Chloromethane	109		-		70-130	-		
Freon-114	115		-		70-130	-		
Vinyl chloride	114		-		70-130	-		
1,3-Butadiene	117		-		70-130	-		
Bromomethane	116		-		70-130	-		
Chloroethane	113		-		70-130	-		
Ethanol	96		-		40-160	-		
Vinyl bromide	107		-		70-130	-		
Acetone	96		-		40-160	-		
Trichlorofluoromethane	98		-		70-130	-		
Isopropanol	97		-		40-160	-		
1,1-Dichloroethene	105		-		70-130	-		
Tertiary butyl Alcohol	100		-		70-130	-		
Methylene chloride	104		-		70-130	-		
3-Chloropropene	113		-		70-130	-		
Carbon disulfide	102		-		70-130	-		
Freon-113	109		-		70-130	-		
trans-1,2-Dichloroethene	100		-		70-130	-		
1,1-Dichloroethane	105		-		70-130	-		
Methyl tert butyl ether	103		-		70-130	-		
2-Butanone	97		-		70-130	-		
cis-1,2-Dichloroethene	101		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

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: WG1335509-3								
Ethyl Acetate	116		-		70-130	-		
Chloroform	127		-		70-130	-		
Tetrahydrofuran	98		-		70-130	-		
1,2-Dichloroethane	106		-		70-130	-		
n-Hexane	93		-		70-130	-		
1,1,1-Trichloroethane	93		-		70-130	-		
Benzene	98		-		70-130	-		
Carbon tetrachloride	101		-		70-130	-		
Cyclohexane	100		-		70-130	-		
1,2-Dichloropropane	94		-		70-130	-		
Bromodichloromethane	102		-		70-130	-		
1,4-Dioxane	97		-		70-130	-		
Trichloroethene	95		-		70-130	-		
2,2,4-Trimethylpentane	105		-		70-130	-		
Heptane	93		-		70-130	-		
cis-1,3-Dichloropropene	106		-		70-130	-		
4-Methyl-2-pentanone	94		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	98		-		70-130	-		
Toluene	90		-		70-130	-		
2-Hexanone	96		-		70-130	-		
Dibromochloromethane	98		-		70-130	-		
1,2-Dibromoethane	95		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

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: WG1335509-3								
Tetrachloroethene	96		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	108		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	101		-		70-130	-		
4-Ethyltoluene	100		-		70-130	-		
1,3,5-Trimethylbenzene	101		-		70-130	-		
1,2,4-Trimethylbenzene	109		-		70-130	-		
Benzyl chloride	106		-		70-130	-		
1,3-Dichlorobenzene	100		-		70-130	-		
1,4-Dichlorobenzene	85		-		70-130	-		
1,2-Dichlorobenzene	107		-		70-130	-		
1,2,4-Trichlorobenzene	**132**	Q	-		70-130	-		
Hexachlorobutadiene	121		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: RPC

Project Number: 12.0076555

Lab Number: L2003767

Report Date: 01/31/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1335510-3								
Vinyl chloride	103		-		70-130	-		25
1,1-Dichloroethene	98		-		70-130	-		25
cis-1,2-Dichloroethene	99		-		70-130	-		25
1,1,1-Trichloroethane	87		-		70-130	-		25
Carbon tetrachloride	93		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
Tetrachloroethene	96		-		70-130	-		25

Project Name: RPC

Project Number: 12.0076555

Lab Number: L2003767

Report Date: 01/31/20

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
L2003767-01	VISITORS BLDG-OAA-01	0235	Flow 5	01/24/20	312809		-	-	-	Pass	10.0	10.8	8
L2003767-01	VISITORS BLDG-OAA-01	1889	6.0L Can	01/24/20	312809	L2002758-03	Pass	-30.0	-3.1	-	-	-	-
L2003767-02	VISITORS BLDG-IAA-02	01718	Flow 3	01/24/20	312809		-	-	-	Pass	10.0	12.4	21
L2003767-02	VISITORS BLDG-IAA-02	1564	6.0L Can	01/24/20	312809	L2002758-03	Pass	-30.0	-2.7	-	-	-	-
L2003767-03	VISITORS BLDG-VP-10	01334	SV20	01/24/20	312809		-	-	-	Pass	17.0	13.7	21
L2003767-03	VISITORS BLDG-VP-10	555	2.7L Can	01/24/20	312809	L2002405-02	Pass	-29.8	0.0	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/17/20 17:27
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

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

Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/17/20 17:27
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002405
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002405-02
Client ID: CAN 2017 SHELF 3
Sample Location:

Date Collected: 01/16/20 09:00
Date Received: 01/17/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	93		60-140

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

Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/21/20 19:22
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/21/20 19:22
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L2002758
Report Date: 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2002758

Project Number: CANISTER QC BAT **Report Date:** 01/31/20

Air Canister Certification Results

Lab ID: L2002758-03
Client ID: CAN 647 SHELF 51
Sample Location:

Date Collected: 01/20/20 16:00
Date Received: 01/21/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	93		60-140

Project Name: RPC
Project Number: 12.0076555

Lab Number: L2003767
Report Date: 01/31/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2003767-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2003767-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2003767-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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

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

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

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

Data Qualifiers

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.

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2003767
Project Number:	12.0076555	**Report Date:**	01/31/20

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab: 1/28/20

ALPHA Job #: L2003767

Client Information

Client: G2A
Address: 55 LANE ROAD
FAIRFIELD N.J. 07004
Phone: 973-774-3300
Fax:
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: Old orangeburg rd.
Project #: 12.0076555
Project Manager: LINDSEY NUNES
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	ID Can	ID - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH (Subset non-petroleum HCs) ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
3767-01	Vapor Pin-OAA-01	1-27-20	06:45	14:45	-29.75	-4.25	AA	JR	6L	1889	0235	X	X				
-02	IAA-02	↓	06:46	14:46	-29.85	-3.68	AA	JR	↓	1564	01718	X	X				
-03	VP-10	↓	08:30	10:30	-29.38	-0.36	SV	JR	2.7L	555	01334	X	X				4.1 PPM

*SAMPLE MATRIX CODES

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

Container Type: C C / S S

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

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature] AAL	1-27-20 1740	D Ichneeg AAL	1/28/20 1540
[signature]	1/28/20 1740	[signature]	1/28/20 0200

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

ANALYTICAL REPORT

Lab Number:	L2005280
Client:	GZA GeoEnvironmental, Inc. 55 Lane Road Suite 407 Fairfield, NJ 07004
ATTN:	Lindsay Nunes
Phone:	(973) 774-3300
Project Name:	RPC
Project Number:	12.0076555.02
Report Date:	02/21/20

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

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2005280-01	VB-OAA	AIR	140 OLD ORANGEBURG RD.	02/05/20 14:33	02/05/20
L2005280-02	VB-IAA	AIR	140 OLD ORANGEBURG RD.	02/05/20 14:35	02/05/20
L2005280-03	VP-10A	SOIL_VAPOR	140 OLD ORANGEBURG RD.	02/05/20 10:25	02/05/20

Project Name:	RPC	**Lab Number:**	L2005280
Project Number:	12.0076555.02	**Report Date:**	02/21/20

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. 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 Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data 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.

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 Alpha Project Manager 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 Project Management at 800-624-9220 with any questions.

Project Name: RPC **Lab Number:** L2005280
Project Number: 12.0076555.02 **Report Date:** 02/21/20

Case Narrative (continued)

Second Report Revision

February 21, 2020: This report replaces the one previously issued on February 13, 2020. The report has been amended to change a sample ID at the request of the client. A revise CoC was not provided.

February 13, 2020: This report replaces the one previously issued on February 10, 2020. The report has been amended to change the project number at the request of the client. A revise CoC was not provided.

Volatile Organics in Air

Canisters were released from the laboratory on February 4, 2020. The canister certification results are provided as an addendum.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 02/21/20

AIR

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-01
Client ID: VB-OAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:33
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/06/20 17:20
Analyst: EW

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.497	0.200	--	2.46	0.989	--		1
Chloromethane	0.431	0.200	--	0.890	0.413	--		1
Freon-114	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
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	0.207	0.200	--	1.16	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-01
Client ID: VB-OAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:33
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-01
Client ID: VB-OAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:33
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-01
Client ID: VB-OAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:33
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/06/20 17:20
Analyst: EW

	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	0.075	0.020	--	0.472	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	94		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	96		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-02
Client ID: VB-IAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:35
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/06/20 18:00
Analyst: EW

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.679	0.200	--	3.36	0.989	--		1
Chloromethane	0.427	0.200	--	0.882	0.413	--		1
Freon-114	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
Ethanol	14.8	5.00	--	27.9	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.59	1.00	--	13.3	2.38	--		1
Trichlorofluoromethane	0.255	0.200	--	1.43	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-02
Client ID: VB-IAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:35
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

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								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
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	0.384	0.200	--	1.67	0.869	--		1
p/m-Xylene	1.78	0.400	--	7.73	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.254	0.200	--	1.08	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.527	0.200	--	2.29	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-02
Client ID: VB-IAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:35
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

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								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	99		60-140

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-02
Client ID: VB-IAA
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 14:35
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/06/20 18:00
Analyst: EW

	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	0.078	0.020	--	0.491	0.126	--		1
Trichloroethene	0.106	0.020	--	0.570	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-03
Client ID: VP-10A
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 10:25
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 02/06/20 19:20
Analyst: EW

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.684	0.200	--	3.38	0.989	--		1
Chloromethane	0.449	0.200	--	0.927	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	32.5	5.00	--	61.2	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	17.1	1.00	--	40.6	2.38	--		1
Trichlorofluoromethane	0.229	0.200	--	1.29	1.12	--		1
Isopropanol	0.754	0.500	--	1.85	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.900	0.500	--	2.73	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.32	0.500	--	3.89	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-03
Client ID: VP-10A
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 10:25
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	0.883	0.500	--	2.60	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.224	0.200	--	0.716	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	0.251	0.200	--	1.35	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.341	0.200	--	1.29	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.528	0.200	--	2.29	0.869	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

SAMPLE RESULTS

Lab ID: L2005280-03
Client ID: VP-10A
Sample Location: 140 OLD ORANGEBURG RD.

Date Collected: 02/05/20 10:25
Date Received: 02/05/20
Field Prep: Not Specified

Sample Depth:

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	2.34	0.400	--	10.2	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.341	0.200	--	1.45	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.698	0.200	--	3.03	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	98		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	101		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 02/06/20 14:36

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: WG1337987-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
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

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2005280
Report Date: 02/21/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 02/06/20 14:36

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: WG1337987-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: RPC
Project Number: 12.0076555.02
Lab Number: L2005280
Report Date: 02/21/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 02/06/20 14:36

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: WG1337987-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 02/06/20 15:16

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): 01-02 Batch: WG1337988-4								
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: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

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: WG1337987-3								
Dichlorodifluoromethane	101		-		70-130	-		
Chloromethane	82		-		70-130	-		
Freon-114	97		-		70-130	-		
Vinyl chloride	94		-		70-130	-		
1,3-Butadiene	94		-		70-130	-		
Bromomethane	91		-		70-130	-		
Chloroethane	92		-		70-130	-		
Ethanol	99		-		40-160	-		
Vinyl bromide	80		-		70-130	-		
Acetone	81		-		40-160	-		
Trichlorofluoromethane	101		-		70-130	-		
Isopropanol	75		-		40-160	-		
1,1-Dichloroethene	101		-		70-130	-		
Tertiary butyl Alcohol	87		-		70-130	-		
Methylene chloride	86		-		70-130	-		
3-Chloropropene	87		-		70-130	-		
Carbon disulfide	79		-		70-130	-		
Freon-113	88		-		70-130	-		
trans-1,2-Dichloroethene	98		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		
Methyl tert butyl ether	91		-		70-130	-		
2-Butanone	88		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

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: WG1337987-3								
Ethyl Acetate	100		-		70-130	-		
Chloroform	117		-		70-130	-		
Tetrahydrofuran	84		-		70-130	-		
1,2-Dichloroethane	114		-		70-130	-		
n-Hexane	110		-		70-130	-		
1,1,1-Trichloroethane	122		-		70-130	-		
Benzene	106		-		70-130	-		
Carbon tetrachloride	124		-		70-130	-		
Cyclohexane	112		-		70-130	-		
1,2-Dichloropropane	96		-		70-130	-		
Bromodichloromethane	122		-		70-130	-		
1,4-Dioxane	112		-		70-130	-		
Trichloroethene	101		-		70-130	-		
2,2,4-Trimethylpentane	119		-		70-130	-		
Heptane	90		-		70-130	-		
cis-1,3-Dichloropropene	109		-		70-130	-		
4-Methyl-2-pentanone	94		-		70-130	-		
trans-1,3-Dichloropropene	95		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	88		-		70-130	-		
2-Hexanone	96		-		70-130	-		
Dibromochloromethane	101		-		70-130	-		
1,2-Dibromoethane	95		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

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: WG1337987-3								
Tetrachloroethene	90		-		70-130	-		
Chlorobenzene	99		-		70-130	-		
Ethylbenzene	95		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	99		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	106		-		70-130	-		
o-Xylene	96		-		70-130	-		
4-Ethyltoluene	97		-		70-130	-		
1,3,5-Trimethylbenzene	70		-		70-130	-		
1,2,4-Trimethylbenzene	103		-		70-130	-		
Benzyl chloride	113		-		70-130	-		
1,3-Dichlorobenzene	104		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		
1,2-Dichlorobenzene	104		-		70-130	-		
1,2,4-Trichlorobenzene	109		-		70-130	-		
Hexachlorobutadiene	101		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1337988-3								
Vinyl chloride	88		-		70-130	-		25
1,1-Dichloroethene	98		-		70-130	-		25
cis-1,2-Dichloroethene	94		-		70-130	-		25
1,1,1-Trichloroethane	116		-		70-130	-		25
Carbon tetrachloride	115		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
Tetrachloroethene	85		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1337987-5 QC Sample: L2005280-02 Client ID: VB-IAA						
Dichlorodifluoromethane	0.679	0.670	ppbV	1		25
Chloromethane	0.427	0.421	ppbV	1		25
Freon-114	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
Ethanol	14.8	14.6	ppbV	1		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	5.59	5.58	ppbV	0		25
Trichlorofluoromethane	0.255	0.256	ppbV	0		25
Isopropanol	ND	ND	ppbV	NC		25
Tertiary 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
Freon-113	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
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1337987-5 QC Sample: L2005280-02 Client ID: VB-IAA						
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	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	0.384	0.386	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1337987-5 QC Sample: L2005280-02 Client ID: VB-IAA						
p/m-Xylene	1.78	1.82	ppbV	2		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	0.254	0.277	ppbV	9		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	0.527	0.546	ppbV	4		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
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1337988-5 QC Sample: L2005280-02 Client ID: VB-IAA						
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	0.078	0.089	ppbV	13		25
Trichloroethene	0.106	0.107	ppbV	1		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: RPC

Project Number: 12.0076555.02

Lab Number: L2005280

Report Date: 02/21/20

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
L2005280-01	VB-OAA	01809	Flow 3	02/04/20	313568		-	-	-	Pass	10.0	10.1	1
L2005280-01	VB-OAA	2969	6.0L Can	02/04/20	313568	L2003374-07	Pass	-29.0	-1.3	-	-	-	-
L2005280-02	VB-IAA	01723	Flow 3	02/04/20	313568		-	-	-	Pass	10.0	12.0	18
L2005280-02	VB-IAA	2836	6.0L Can	02/04/20	313568	L2003780-03	Pass	-29.0	-4.5	-	-	-	-
L2005280-03	VP-10A	01386	Flow 3	02/04/20	313568		-	-	-	Pass	18.0	18.3	2
L2005280-03	VP-10A	3168	2.7L Can	02/04/20	313568	L2003629-06	Pass	-29.0	-3.6	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/25/20 20:52
Analyst: GP

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

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

Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/25/20 20:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003374
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003374-07
Client ID: CAN 1637 SHELF 40
Sample Location:

Date Collected: 01/24/20 09:00
Date Received: 01/24/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/27/20 20:39
Analyst: GP

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2003629

Project Number: CANISTER QC BAT **Report Date:** 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2003629

Project Number: CANISTER QC BAT **Report Date:** 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/27/20 20:39
Analyst: GP

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003629
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003629-06
Client ID: CAN 2177 SHELF 4
Sample Location:

Date Collected: 01/27/20 09:00
Date Received: 01/27/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	94		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 01/28/20 18:37
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		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
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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

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

Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2003780

Project Number: CANISTER QC BAT **Report Date:** 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2003780

Project Number: CANISTER QC BAT **Report Date:** 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/28/20 18:37
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		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

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

Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2003780
Report Date: 02/21/20

Air Canister Certification Results

Lab ID: L2003780-03
Client ID: CAN 2623 SHELF 46
Sample Location:

Date Collected: 01/27/20 16:00
Date Received: 01/28/20
Field Prep: Not Specified

Sample Depth:

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								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	94		60-140

Project Name: RPC
Project Number: 12.0076555.02

Lab Number: L2005280
Report Date: 02/21/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2005280-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2005280-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2005280-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	RPC	**Lab Number:**	L2005280
Project Number:	12.0076555.02	**Report Date:**	02/21/20

GLOSSARY

Acronyms

DL - 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 limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

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.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

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.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2005280
Project Number:	12.0076555.02	**Report Date:**	02/21/20

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

Terms

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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 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.

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

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

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

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

Report Format: Data Usability Report

Project Name:	RPC	**Lab Number:**	L2005280
Project Number:	12.0076555.02	**Report Date:**	02/21/20

Data Qualifiers

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.

Report Format: Data Usability Report

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, 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, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

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

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

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab: 2/6/20

ALPHA Job #: L2005280

Client Information

Client: GZA
Address: 55 lane rd.
Fairfield, NJ 07004
Phone: 973-774-3300
Fax:
Email: lindsey.nunes@gza.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: RPC
Project Location: 140 Old Orangeburg rd. Blauvelt, NY
Project #: 12.0076555.11
Project Manager: Lindsey Nunes
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: 3 DAY 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 (Subject Non-petroleum HCs ☐)	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
05280.01	VB-OAA	2-5-20	06:33	14:33	-29.93	-3.57	AA	JR	6L	2969	01809	X					
.02	VB-IAA	↓	06:35	14:35	-30.08	-5.48	AA	JR	6L	2836	01723	X					
.03	VP-10	↓	08:25	10:25	-30.01	-4.11	SV	JR	2.7L	3168	01386	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:
J. Restaino	2-5-20		2/5/20 16:15
	2/5/20 16:40		2/6/20 22:00
	2/6/20 02:30		2/6/20 02:30

APPENDIX C - DATA USABILITY SUMMARY REPORTS

DATA USABILITY SUMMARY REPORT - SUPPLEMENTAL INVESTIGATION SOIL GAS
Rockland County Psychiatric Center
Orangeburg, NY

Laboratory Report Number	L1710321
Report Date	4/11/17
Data Package Inspection/Deliverables	Yes
Analytical Method(s)	TO-15
Preservation and Holding Time	Preserved appropriately; analyzed within hold time
Site-specific MS/MSD	No
MS/MSD Recoveries	No issues noted
Duplicate Samples	No
Surrogates	No issues noted
LCS/LCSD	No issues noted
Evidence of Field Contamination (FB/TB)	No
Evidence of Laboratory Contamination (MB)	No
Calibration/Etc.	No issues noted
RL Evaluation: Criteria/RL	No issues noted
Other QC Data/Comments	Sample L1710321-01 and -02 results for Acetone should be considered estimated due to co-elution with a non-target peak. Sample L1710321-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. Sample L1710321-03 and -04 The presence of Acetone could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound. Sample L1710321-04: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample. Sample L1710321-04 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound
Conclusion:	Data is usable as reported for its intended purpose.

REMEDIAL INVESTIGATION DATA USABILITY SUMMARY REPORT - SOIL GAS
Rockland County Psychiatric Center
Orangeburg, NY

Laboratory Report Number	**L1734219**	**L1734430**	**L1734616**
Report Date	**9/29/17**	**10/3/17**	**10/4/17**
Data Package Inspection/Deliverables	Yes	Yes	Yes
Analytical Method(s)	TO-15	TO-15	TO-15
Preservation and Holding Time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time
Site-specific MS/MSD	No	No	No
MS/MSD Recoveries	Within Limits	Within Limits	Within Limits
Duplicate Samples	No	DUP-SG-1	No
Surrogates	All surrogate recoveries were considered acceptable and within QC limits.	All surrogate recoveries were considered acceptable and within QC limits.	All surrogate recoveries were considered acceptable and within QC limits.
LCS/LCSD	The associated LCS recovery met acceptable criteria.	The associated LCS recovery met acceptable criteria.	The associated LCS recovery met acceptable criteria.
Evidence of Field Contamination (FB/TB)	No	No	No
Evidence of Laboratory Contamination (MB)	No	No	No
Calibration/Etc.	No issues noted	No issues noted	No issues noted
RL Evaluation: Criteria/RL	VOCs: L1734219-03, -05 and -07: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples. L1734219-03, -05 and -07 results for Acetone should be considered estimated due to co-elution with a nontarget peak. L1734219-03 and -07 The presence of 2,2,4-Trimethylpentane could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.	VOCs: L1734430-01 and -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples. L1734430-01 through -08 results for Acetone should be considered estimated due to co-elution with a nontarget peak. L1734430-01 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a nontarget compound interfering with the identification and quantification of this compound. L1734430-02, -03, -04 and -06 results for 2,2,4 Trimethylpentane should be considered estimated due to co-elution with a non-target peak.	VOCs: L1734616-02, -05, and -06: The samples have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples. L1734616-02 results for Acetone should be considered estimated due to co-elution with a non-target peak. L1734616-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample. L1734616-01 and 03 The presence of Acetone could not be determined in these samples due to a non-target compound interfering with the identification and quantification of this compound.
Other QC Data	None	None	None
Conclusion:	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.

DATA USABILITY SUMMARY REPORT - SOIL GAS
Rockland County Psychiatric Center
Orangeburg, NY

Laboratory Report Number	L1734903	L1735174
Report Date	**10/5/17**	**10/6/17**
Data Package Inspection/Deliverables	Yes	Yes
Analytical Method(s)	TO-15	TO-15
Preservation and Holding Time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time
Site-specific MS/MSD	No	No
MS/MSD Recoveries	Within Limits	Within Limits
Duplicate Samples	No	DUP-SG-2
Surrogates	All surrogate recoveries were considered acceptable and within QC limits.	All surrogate recoveries were considered acceptable and within QC limits.
LCS/LCSD	The associated LCS recovery met acceptable criteria.	The associated LCS recovery met acceptable criteria.
Evidence of Field Contamination (FB/TB)	No	No
Evidence of Laboratory Contamination (MB)	No	No
Calibration/Etc.	No issues noted	No issues noted
RL Evaluation: Criteria/RL	VOCs: L1734903-01 through -04 and -06 results for 1,3-Butadiene should be considered estimated due to coelution with a non-target peak. L1734903-03 and -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples. L1734903-06: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.	VOCs: L1735174-01 through -04 results for 1,3-Butadiene should be considered estimated due to co-elution with a non-target peak. L1735174-03 The presence of 2,2,4-Trimethylpentane could not be determined in this sample due to a nontarget compound interfering with the identification and quantification of this compound.
Other QC Data	None	None
Conclusion:	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.

DATA USABILITY SUMMARY REPORT - POST-REMEDIATION VI INVESTIGATION - DECEMBER 4-5, 2019
Rockland County Psychiatric Center
Orangeburg, NY

Laboratory Report Number	L1958249
Report Date	12/10/19
Data Package Inspection/Deliverables	Yes
Analytical Method(s)	TO-15
Preservation and Holding Time	Preserved appropriately; analyzed within hold time
Site-specific MS/MSD	No
MS/MSD Recoveries	No issues noted
Duplicate Samples	No
Surrogates	No issues noted
LCS/LCSD	No issues noted
Evidence of Field Contamination (FB/TB)	No
Evidence of Laboratory Contamination (MB)	No
Calibration/Etc.	No issues noted
RL Evaluation: Criteria/RL	No issues noted
Other QC Data/Comments	No issues noted
Conclusion:	Data is usable as reported for its intended purpose.

DATA USABILITY SUMMARY REPORT - POST-REMEDIATION VI INVESTIGATION
LATE DECEMBER 2019 - FEBRUARY 2020
Rockland County Psychiatric Center
Orangeburg, NY

Laboratory Report Number	L1961731	L2001552	L2003767	L2005280
Report Date	12/30/19	1/15/20	1/31/20	2/21/20
Data Package Inspection/Deliverables	Yes	Yes	Yes	Yes
Analytical Method(s)	TO-15	TO-15	TO-15	TO-15
Preservation and Holding Time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time	Preserved appropriately; analyzed within hold time
Site-specific MS/MSD	No	No	No	No
MS/MSD Recoveries	No issues noted	No issues noted	No issues noted	No issues noted
Duplicate Samples	No	No	No	No
Surrogates	No issues noted	No issues noted	No issues noted	No issues noted
LCS/LCSD	No issues noted	No issues noted	The WG1335509-3 LCS recovery for 1,2,4-trichlorobenzene (132%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.	No issues noted
Evidence of Field Contamination (FB/TB)	No	No	No	No
Evidence of Laboratory Contamination (MB)	No	No	No	No
Calibration/Etc.	No issues noted	No issues noted	No issues noted	No issues noted
RL Evaluation: Criteria/RL	No issues noted	No issues noted	No issues noted	No issues noted
Other QC Data/Comments	No issues noted	No issues noted	No issues noted	No issues noted
Conclusion:	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.	Data is usable as reported for its intended purpose.

APPENDIX D - SOIL VAPOR LOGS

SOIL VAPOR SAMPLING LOG

GZA Engineer: Arsheen Ehtesham	Contractor/Lab: ADT/Alpha		Page 1/1
Project Name: RPC	Analytic Method: TO-15		Date: 9/25/2017
PM: Mindy Sayres			File No. 12.0076555.00
Weather: Variable	PID: MiniRAE 3000	lamp:	
Barometric Press. 30.1	Calibration: (start)	(finish)	
Previous Weather:			Soil vapor probe to be installed > 1' above water tabl

Sample ID	Sample Depth (ft)	Surface Cover	Driving Effort	PID Reading (ppm)	Purge Time		He in Shroud	He in Te Bag	Sample Date- Start	Sample Time- Start	Vacuum Pressure- Start	Sample Time- End	Vaccuum Pressure- Stop	Canister ID	Flow Controller ID	Sample Flow Rate (ml/min)
					Purge Start	Purge Stop										
Quadrant 1																
SG-6	5	G	E/M	82.9	12:55	12:59	45.5	150	9/27/17	13:00	-29.85	13:27	-2.99	2062	0855	218
SG-7	5	G	E/M	70.7	11:26	11:30	39.1	0	9/29/17	11:36	-29.71	12:11	-.11	2252	0565	220
SG-8	5	A	E/M	3.5	12:31	12:34	45.8	0	9/27/17	12:43	-29.78	13:08	-4.31	2113	0887	204
SG-9	5	C	E/M	2.6	08:54	08:58	53.2	0	9/28/17	08:58	-29.93	09:26	-2.8	1547	0663	220
SG-10	5	C	E/M	7.1	12:00	12:03	50.1	0	9/28/17	12:09	-29.53	12:35	-3.51	2063	0687	221
SG-11	5	C	E/M	1.2	12:14	12:17	62.6	0	9/28/17	12:20	-29.70	12:50	-1.43	940	0712	219
SG-12	5	C	E/M	6.6	09:58	10:01	45.5	0	9/29/17	10:10	-28.86	10:36	-2.45	603	0882	210
SG-13	5	G	E/M	2.4	10:29	10:32	45.7	0	9/29/17	10:33	-29.98	11:07	-.7	903	0902	215
SG-14	5	G	E/M	342	12:02	12:06	51.2	0	9/29/17	12:07	-29.54	12:34	-3.91	1992	0864	219
SG-15	5	G	E/M	64.1	11:49	11:52	49.9	0	9/29/17	11:53	-30.34	12:26	-.3	1829	0669	219
SG-16	5	G	E/M	3.4	14:53	14:57	67	500	9/27/17	14:58	-30.14	15:24	-3.81	1588	0604	217
SG-17	5	G	E/M	0.0	09:44	09:47	77.7	0	927/17	09:58	-29.88	10:26	-2.95	2066	0861	220
SG-18	5	G	E/M	7.0	15:42	15:46	64.5	0	9/27/17	15:47	-29.11	16:17	.85	963	0678	220
SG-19	5	G	E/M	0.0	10:15	10:18	35.2	0	9/27/17	10:12	-30.21	10:48	-3.70	1610	0513	218
Quadrant 2																
SG-20	5	G	E/M	20.4	12:35	12:38	60.4	4.1	9/27/17	12:41	-29.82	13:7	-3.56	704	0812	217
SG-21	5	G	E/M	1.2	11:57	12:01	64.6	400	9/27/17	12:02	-29.70	12:27	-3.41	1692	0608	221
SG-22	5	G	E/M	22.2	15:27	15:36	53.9	0	9/27/17	15:31	-30.52	16:00	-2.51	764	0661	214
SG-23	5	G	E/M	2.2	15:15	15:47	78.5	0	9/26/17	15:19	-29.54	15:47	-2.59	1823	0672	219
SG-24	5	G	E/M	1.3	15:26	15:29	73.3	91000	9/26/17	15:38	-30.01	16:03	4.48	1599	0888	209
SG-25	5	G	E/M	0.0	15:00	15:03	84.9	0	9/26/17	15:07	-29.98	15:31	-4.41	595	0668	221
Quadrant 3																
SG-26	5	G	E/M	0.0	11:24	11:27	85.1	0	9/26/17	11:28	-30.29	11:54	3.83	1631	0519	219
SG-27	5	C	E/M	1.3	10:05	10:08	78.5	0	9/26/17	10:12	-28.83	10:36	4.43	1590	0859	218
SG-28	5	G	E/M	1.1	10:38	10:41	92.9	0	9/26/17	10:45	-29.56	11:11	3.55	590	0509	221
SG-29	5	G	E/M	.2	14:27	14:30	86.5	0	9/26/17	12:31	-30.52	14:56	*	2099	0664	218
SG-30	5	G	E/M	.2	13:37	13:40	80.7	0	9/26/17	13:42	-29.69	14:10	1.54	805	0858	217
Quadrant 4																
SG-31	5	G	E/M	21.5	11:10	11:13	81	390	9/25/17	11:14	-29.47	11:40	-3.12	1051	0571	215
SG-32	5	G	E/M	320	13:06	13:09	50	0	9/25/17	13:16	-28.86	13:40	-4.77	1532	0708	221
SG-33	5	G	E/M	58.6	13:23	13:27	82	0	9/25/17	13:30	-29.81	13:55	-4.53	1687	0885	220
SG-34	5	G	E/M	110	15:10	15:13	83.5	650	9/25/17	15:15	-27.46	15:40	-4.61	757	0693	214
SG-35	5	A	E/M	31.2	10:23	10:26	55	0	9/25/17	10:32	-30.17	10:58	-4.28	615	0603	222
SG-36	5	G	E/M	82.1	14:09	14:12	68.8	0	9/25/17	14:15	-30.17	14:41	-4.51	1867	0654	210
SG-37	5	G	E/M	79.6	14:47	14:51	80.2	0	9/25/17	14:58	-28.86	15:22	-4.31	975	0690	219
QAQC																
DUP-SG-1 (SG 30)	5	G	E/M							13:42	-29.86	14:10	-2.51	972	0710	217
DUP-SG-2 (SG-13)	5	G	E/M							10:33	-29.91	11:07	-.58	1555	0567	215

ABBREVIATIONS

CONTAINER TYPE	SURFACE COVER	PROBE DRIVING EFFORT
TB- Tedlar Bag	G/L- Grass/Loam	E- Easy
SC- Suma Canister	Asph- Asphalt	M- Moderate
ST- Sorbant Tube	Cncrt- Concrete	D- Difficult
Other:	Other:	Other:

Remarks:

*= flow controller malfunction, no final reading

GZA Engineer:	Matt Del Balzo & Rebecca Eustice	Contractor/Lab:	ALPHA	Page:	1 of 1
Project Name:	RPC	Analytic Method:	TO-15	Date:	~~12/3/2019~~ 12/4/2019 - 12/5/2019
PM:	Mindy Sayres			File No.	12.0076555.02
Weather:	Cloudy 33° (12/4/19)	PID:	MiniRae 3000 lamp: 10.6 eV		
Barometric Press.	29.81	Calibration:	(start) 6:40 (finish) 6:42		
Previous Weather:	P. Cloudy 37/27				

Weather (12/5): partly Cloudy 39/26

Sample ID	Sample Depth (ft)	Surface Cover	Driving Effort	PID Reading (ppm)	Purge Time		He in Tedlar Bag	He in Shroud		Sample Date- Start	Sample Time- Start	Vacuum Pressure- Start	Sample Time- End	Vaccuum Pressure- Stop	Canister ID	Flow Controller ID	Sample Flow Rate (l/min)
					Purge Start	Purge Stop											
VP-1		CNCRT	E	0.0	10:33	10:35	4.6%	83.6%		12/4/19	10:38	-29.58	11:22	-1.78	3221	07605	36
VP-2		CNCRT	E	0.1	9:58	10:02	4.8%	89.7%		12/4/19	10:07	-29.00	11:05	-8.23	3211	01550	36
VP-3		CNCRT	E	0.0	10:25	10:28	2.2%	84.5%		12/5/19	11:20	-27.06	12:20	-5.92	193	0798	36
VP-4		CNCRT	E	0.0	2:30	2:32	2.2%	85.2%		12/4/19	14:34	-29.71	15:30	-8.20	2188	01136	36
VP-5		CNCRT	E	0.0	2:40	2:42	2.7%	89.8%		12/4/19	14:45	-29.37	15:40	-7.60	2438	0953	36
VP-6		CNCRT	E	0.0	10:05	10:06	0.0	82.7%		12/5/19	10:09	-30.10	11:07	-4.42	3218	01171	36
VP-7		CNCRT	E	0.0	11:40	11:45	1.8%	92.3%		12/4/19	11:50	-29.23	12:45	-7.69	3208	01396	36
VP-8		CNCRT	E	0.0	10:18	10:22	2.2%	93.2%		12/4/19	10:23	-29.55	11:20	-6.08	3212	01450	36
VP-9		CNCRT	E	0.0	8:45	8:51	0.1%	78.3		12/5/19	8:53	-29.86	9:50	-3.82	3233	01462	36
VP-10		CNCRT	E	0.0	7:55	8:01	2.4%	100%		12/4/19	8:05	-29.63	9:05	-5.14	3220	01082	36

ABBREVIATIONS

CONTAINER TYPE	SURFACE COVER	PROBE DRIVING EFFORT
TB- Tedlar Bag SC- Suma Canister ST- Sorbant Tube Other:	G/L- Grass/Loam Asph- Asphalt Cncrt- Concrete Other: VFT - Vinyl Floor Tile	E- Easy M- Moderate D- Difficult Other:

Remarks:

IAA collected in same room as VP-10
OAA Collected outside Bay doors of VVRC

OAA (Can 2927) (Controller 0238) start "Hg -29.96 start time: 7:43 Stop "Hg: -7.83 Time: 15:30
IAA (Can 790) (Controller 0045) start "Hg -27.87 time 7:45 "Hg -10.39 Time: 15:35

Soil Vapor Sampling Log

GZA Engineer:	James Restaino	Contractor/Lab:	Alpha Analytical	Page	1 of 1
Project Name:	RPC	Analytic Method:	TO-15	Date:	1-27-2020
PM:	Mindy Sayres			File No.	12.0076555.02
Weather:	40's Cloudy/Lt Rain	PID:	MiniRAE 3000 Lamp: 10 eV		
Barometric Press.					

Sample ID	Sample Depth (ft)	Surface Cover	Driving Effort	PID Reading (ppm)	Purge Time		He in Tedlar Bag	He in Shroud	Shut-in Test (Y/N)	Sample Date	Sample Time-Start	Vacuum Pressure-Start	Sample Time-End	Vaccuum Pressure-Stop	Canister ID	Flow Controller ID
					Purge Start	Purge Stop										
VP-10		Cncrt	N/A	4.1	0800	0820	88%	9%		1/27/20	0830	-29.38	~~1030~~	-0.33	555	01334

ABBREVIATIONS

CONTAINER TYPE	SURFACE COVER	PROBE DRIVING EFFORT
TB- Tedlar Bag	G/L- Grass/Loam	E- Easy
SC- Suma Canister	Asph- Asphalt	M- Moderate
ST- Sorbant Tube	Cncrt- Concrete	D- Difficult
Other:	Other:	Other:

Remarks:

Soil Vapor Sampling Log

GZA Engineer:	James Restaino	Contractor/Lab:	Alpha Analytical	Page	1 of 1
Project Name:	RPC	Analytic Method:	TO-15	Date:	2-5-2020
PM:	Mindy Sayres			File No.	12.0076555.02
Weather:	40's cloudy	PID:	MiniRAE 3000 Lamp: 10 eV		
Barometric Press.					

Sample ID	Sample Depth (ft)	Surface Cover	Driving Effort	PID Reading (ppm)	Purge Time		He in Tedlar Bag	He in Shroud	Shut-in Test (Y/N)	Sample Date	Sample Time-Start	Vacuum Pressure-Start	Sample Time-End	Vaccuum Pressure-Stop	Canister ID	Flow Controller ID
					Purge Start	Purge Stop										
VP-10		CONCRETE	N/A	1.3	0805	0815	50 PPM	80%		2/5/20	0825	-30.01	1025	-4.11	3168	01386

ABBREVIATIONS

CONTAINER TYPE	SURFACE COVER	PROBE DRIVING EFFORT
TB- Tedlar Bag	G/L- Grass/Loam	E- Easy
SC- Suma Canister	Asph- Asphalt	M- Moderate
ST- Sorbant Tube	Cncrt- Concrete	D- Difficult
Other:	Other:	Other:

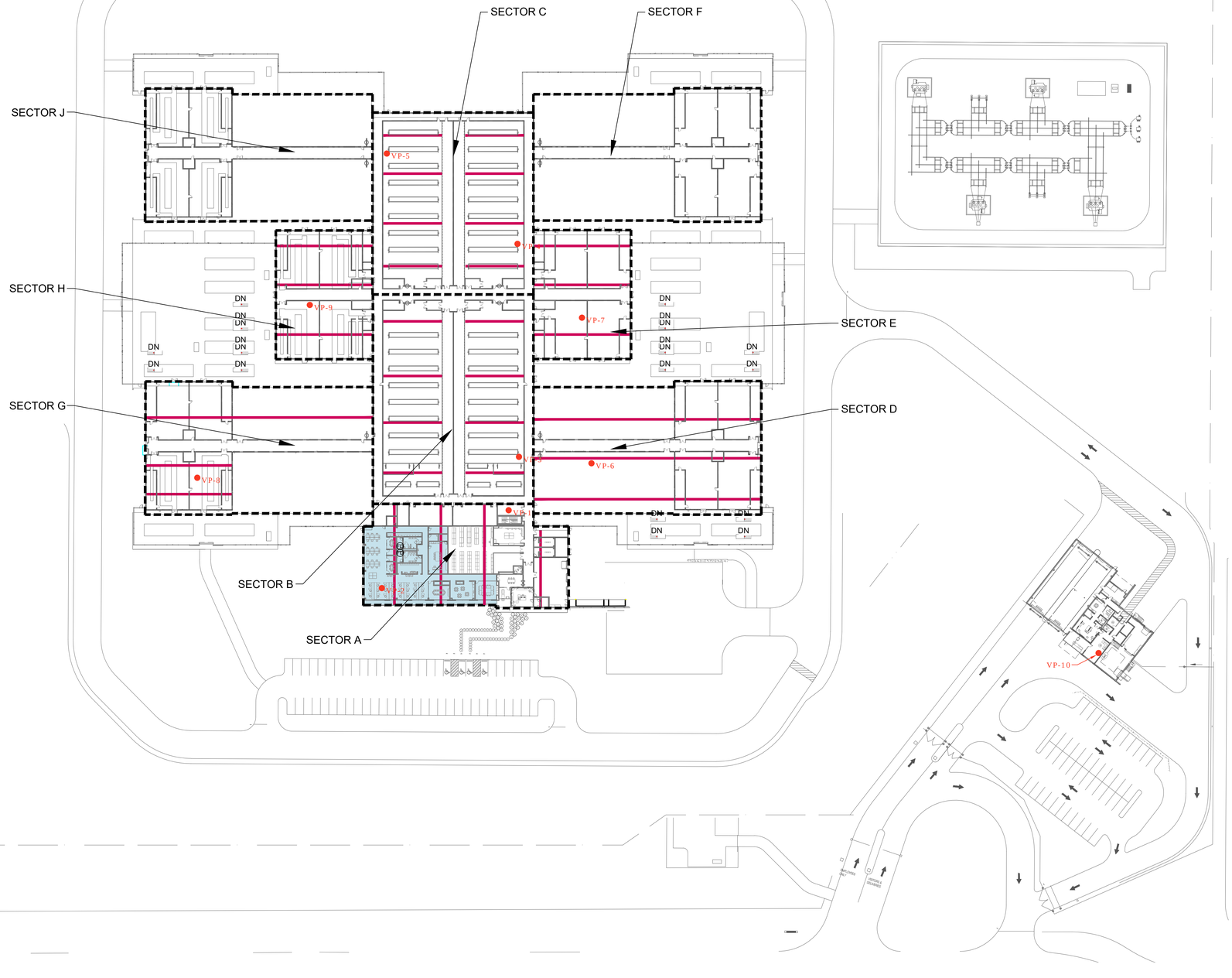
Remarks:

IAA - Flow controller - 01723 CAN ID - 2836 Initial VAC -30.01

OAA - Flow controller - 01801 CAN ID - 2969 Initial VAC - 29.93

APPENDIX E - REMEDIAL ACTION PLANS/SPECIFICATIONS

PASSIVE SUBSLAB DEPRESSURIZATION SYSTEM LAYOUT



LEGEND:

- VP-1 — VAPOR MONITORING POINT
- SECTOR BOUNDARY
- LATERALS TO BE CONNECTED BETWEEN HEADER PIPE AND VENT PIPE BELOW SLAB. LOCATION OF THE VENT PIPE TO BE FINALIZED BY THE PROJECT ARCHITECT. VENT PIPES TO EXIT THE ROOF WITH A GOOSE NECK ON TOP. LATERALS TO BE CONSTRUCTED OF 3" SCHEDULE 40 PVC CASING
- AREAS OF NORMALLY OCCUPIED SPACES

NOTES:

1. THE BASE MAP WAS DEVELOPED FROM A PLAN PROVIDED BY CH2M, ENTITLED "OVERALL UTILITY PLAN," DATED 12/5/2017, ORIGINAL SCALE 1" = 120', DRAWING NUMBER C300
2. REFER TO FOR THE EXACT LOCATION OF THE HEADER AND LATERAL PIPING, AND VAPOR MONITORING POINTS.
3. REFER TO FIGURE 2 FOR SPECIFICATIONS AND INSTRUCTION ON INSTALLATION OF VAPOR BARRIER.
4. GZA BELIEVES VAPOR BARRIER WILL BE SUFFICIENT TO PREVENT ANY POTENTIAL VAPOR INTRUSION (IF ANY) INTO THE BUILDING. PASSIVE SUB-SLAB VENTING SYSTEM IS BEING PLACED AS A PRO-ACTIVE MEASURE, TO PREVENT FUTURE DISRUPTIONS TO THE OPERATIONS IF ANY EXCEEDANCES ARE ENCOUNTERED.
5. BASED UPON THE CURRENT SOIL GAS SAMPLING RESULTS IT IS UNLIKELY THE PASSIVE SUB-SLAB VENTING SYSTEM WILL BE RETROFITTED TO AN ACTIVE SYSTEM.
6. IF IT IS DEEMED NECESSARY TO CONVERT PASSIVE TO AN ACTIVE SYSTEM THEN GZA WILL DESIGN AND SIZE APPROPRIATE BLOWERS TO OVERCOME THE NECESSARY FRICTION LOSS AND ACHIEVE A RADIUS OF INFLUENCE OF 25 TO 30 FEET.
7. BASED UPON THE AVAILABLE SPACING IN A BUILDING SECTOR LATERAL PERFORATED PIPING RUNS ARE SPACED BETWEEN 50 AND 60 FEET ON CENTER IN THE DESIGN.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

PASSIVE SUB-SLAB VENTING SYSTEM DESIGN LAYOUT

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com			PREPARED FOR: JP MORGAN CHASE AND COMPANY
PROJ MGR: MS	REVIEWED BY: BP	CHECKED BY: MS	FIGURE 1
DESIGNED BY: BP	DRAWN BY: LN	SCALE: NTS	
DATE: JUNE 2018	PROJECT NO. 12.0076555.00	REVISION NO.	SHEET NO.

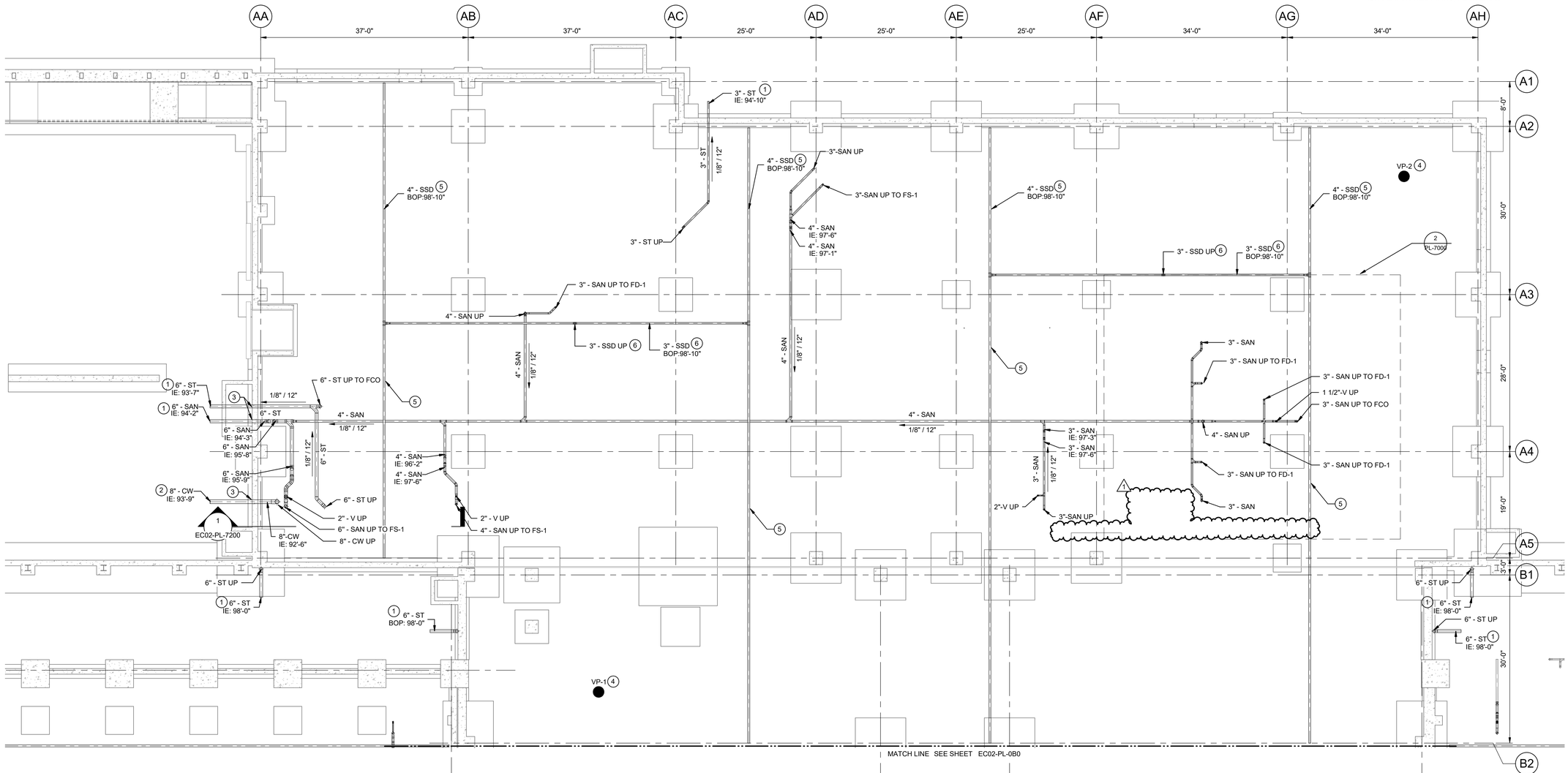
©2018 - GZA GeoEnvironmental, Inc. - G:\76500's\12.0076555.00\FIGURES\CAD\SGS\[CO2-SITE PLAN - LN.DWG FIGURE 1 SEPTEMBER 19, 2018 3:10 PM MIGUEL TORRES

GENERAL NOTES

A. DRAWING REFERENCES HAVE BEEN TRUNCATED FOR BREVITY. ALL REFERENCES ARE PRECEEDED BY "EC02-".
B. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES REFER TO DWG PL-0000.
C. SLOPE SANITARY PIPE 1/4" PER 1'-0" WHERE LOCATED ABOVE GRADE.
D. SLOPE ALL OTHER DRAIN PIPE 1/8" PER 1'-0" UNLESS NOTED OTHERWISE.
E. FINISHED 1ST FLOOR ELEVATION AT 100'-0".
F. PROVIDE CLEANOUT AT BASE OF ALL DRAIN STACKS AND VENT STACKS/RISERS.
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.

KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP. REFER TO CIVIL DRAWING FOR LOCATION OF PIPE.
2. INSTALL WATER LINE TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP REFER TO CIVIL DRAWING FOR LOCATION OF PIPE.
3. ROUTE PIPE THROUGH SLEEVE. COORDINATE WITH STRUCTURAL CONTRACTOR. REFER TO DETAILS 3 & 4 ON DRAWINGS S0-7602
4. VAPOR MONITORING POINT. REFER TO DETAIL 1 ON DRAWING PL-7600. COORDINATE WITH ARCHITECTURAL CONTACTOR FOR VAPOR BARRIER AND ANY OTHER MATERIALS REQUIRED.
5. PROVIDE 4" SSD SCREEN CAST PIPE. MANUFACTURER BUFFALO WELL PRODUCTS S-40 PVC 0.020 F.J. ASTM 1784 WITH ENDS CONFORMING TO ASTM F-480 4P F.J. OR EQUAL. CAP ALL PIPE AT END OF LINE AND INSTALL PER MANUFACTURERS RECOMENDATIONS. ALL ENDS SHALL BE NTP EXCEPT WHERE PIPE CONNECTS TO 3" SCH 40 PIPE. PROVIDE PLAIN ENDS FOR 3" PIPE. CONNECTIONS.
6. ALL 3" PIPE HEADERS AND UP THRU SLAB SHALL BE SCH 40 NON-PERFORATED PIPING, PLAIN ENDS.



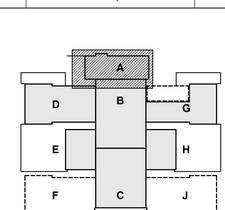
ch2m SM
Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.:	CLIENT PROJECT NO.:
683694	
DRAWN: D. NIEMCZYK	REVIEWED: D. SEGER
DESIGNED: M. HORNFECK	APPROVED: P. CZERWINSKI
NOTICE:	STAMP:

HOPE FURRER ASSOCIATES

Dewberry®

No.	Description	Date
1	REVISED FOR CONSTRUCTION	10/16/18
0	ISSUE FOR CONSTRUCTION	08/23/18



KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

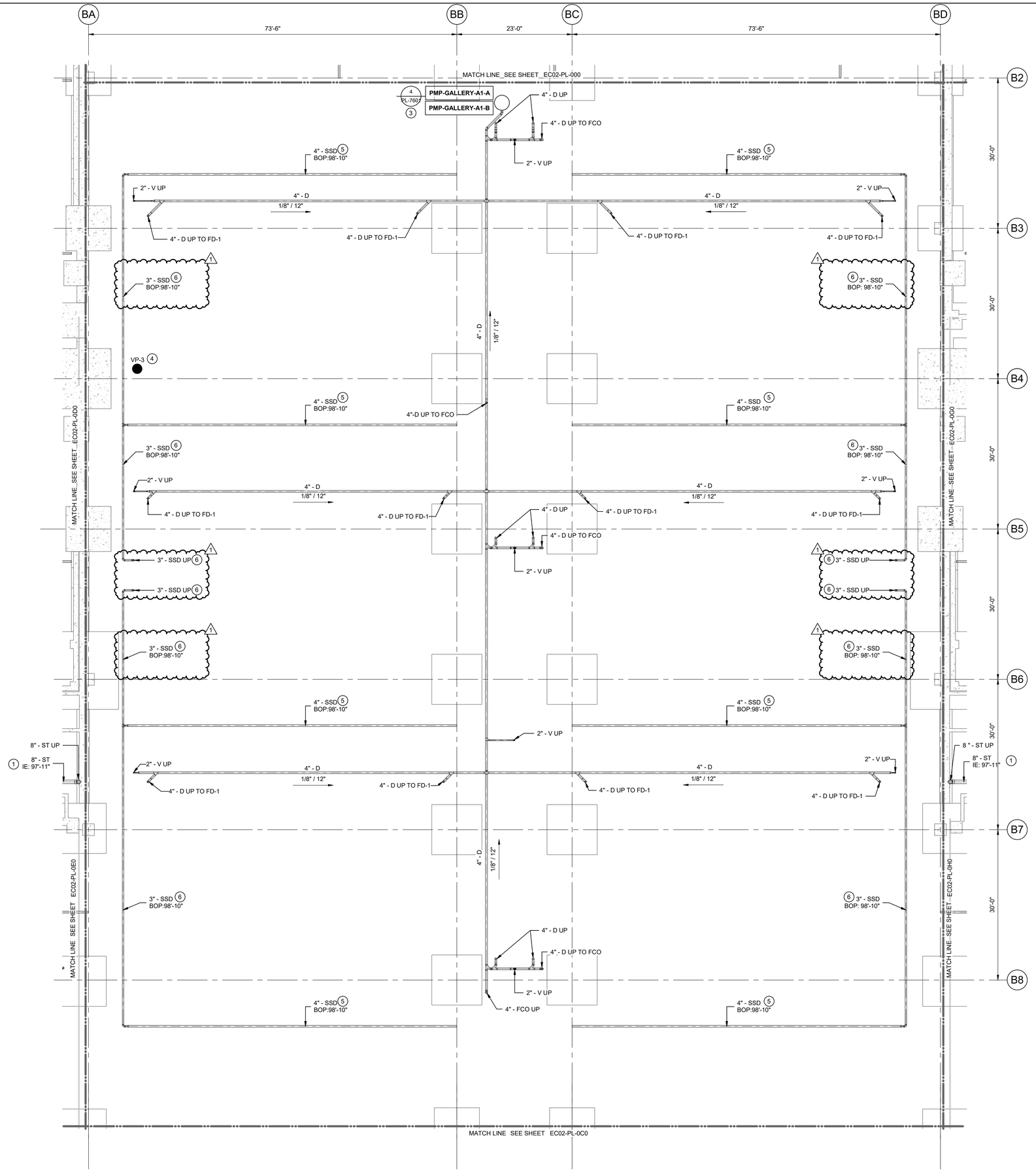
PLUMBING
UNDERGROUND
SECTOR A
FLOOR PLAN

ACAD FILE: DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0A0

10/16/2018 1:23:57 PM



GENERAL NOTES

A. DRAWING REFERENCES HAVE BEEN TRUNCATED FOR BREVITY. ALL REFERENCES ARE PRECEEDED BY "EC02-".
B. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES REFER TO DWG PL-0000.
C. SLOPE SANITARY PIPE 1/4" PER 1'-0" WHERE LOCATED ABOVE GRADE.
D. SLOPE ALL OTHER DRAIN PIPE 1/8" PER 1'-0" UNLESS NOTED OTHERWISE.
E. FINISHED 1ST FLOOR ELEVATION AT 100'-0".
F. PROVIDE CLEANOUT AT BASE OF ALL DRAIN STACKS AND VENT STACKS/RISERS.
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.

KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP. REFER TO CIVIL DRAWING FOR LOCATION OF PIPE.
2. NOT USED.
3. PROVIDE FIBERGLASS BASIN WITH ANTI-FLOAT COLLAR AND FLANGED LID SEALED AIR TIGHT. BASIN AT 36" SET DEPTH OF BASIN AT 42". MANUFACTURER A.K. INDUSTRIES MODEL 36 OR EQUAL.
4. VAPOR MONITORING POINT. REFER TO DETAIL 1 ON DRAWING PL-7600. COORDINATE WITH ARCHITECTURAL CONTACTOR FOR VAPOR BARRIER AND ANY OTHER MATERIALS REQUIRED.
5. PROVIDE 4" SSD SCREEN CAST PIPE. MANUFACTURER BUFFALO WELL PRODUCTS S-40 PVC 0.020 F.J. ASTM 1784 WITH ENDS CONFORMING TO ASTM F-480 4P F.J. OR EQUAL. CAP ALL PIPE AT END OF LINE AND INSTALL PER MANUFACTURERS RECOMENDATIONS. ALL ENDS SHALL BE NTP EXCEPT WHERE PIPE CONNECTS TO 3" SCH 40 PIPE. PROVIDE PLAIN ENDS FOR 3" PIPE. CONNECTIONS.
6. ALL 3" PIPE HEADERS AND UP THRU SLAB SHALL BE SCH 40 NON-PERFORATED PIPING, PLAIN ENDS.

ch2m. SM
Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.: 683694
CLIENT PROJECT NO.:
DRAWN: D. NIEMCZYK
REVIEWED: D. SEGER
DESIGNED: M. HORNFECK
APPROVED: P. CZERWINSKI
NOTICE:
STAMP:

HOPE FURRER ASSOCIATES

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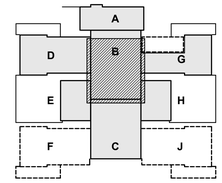
No.	Description	Date
1	REVISED FOR CONSTRUCTION	10/16/18
0	ISSUE FOR CONSTRUCTION	08/23/18



KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING
UNDERGROUND
SECTOR B
FLOOR PLAN

ACAD FILE:
DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0B0

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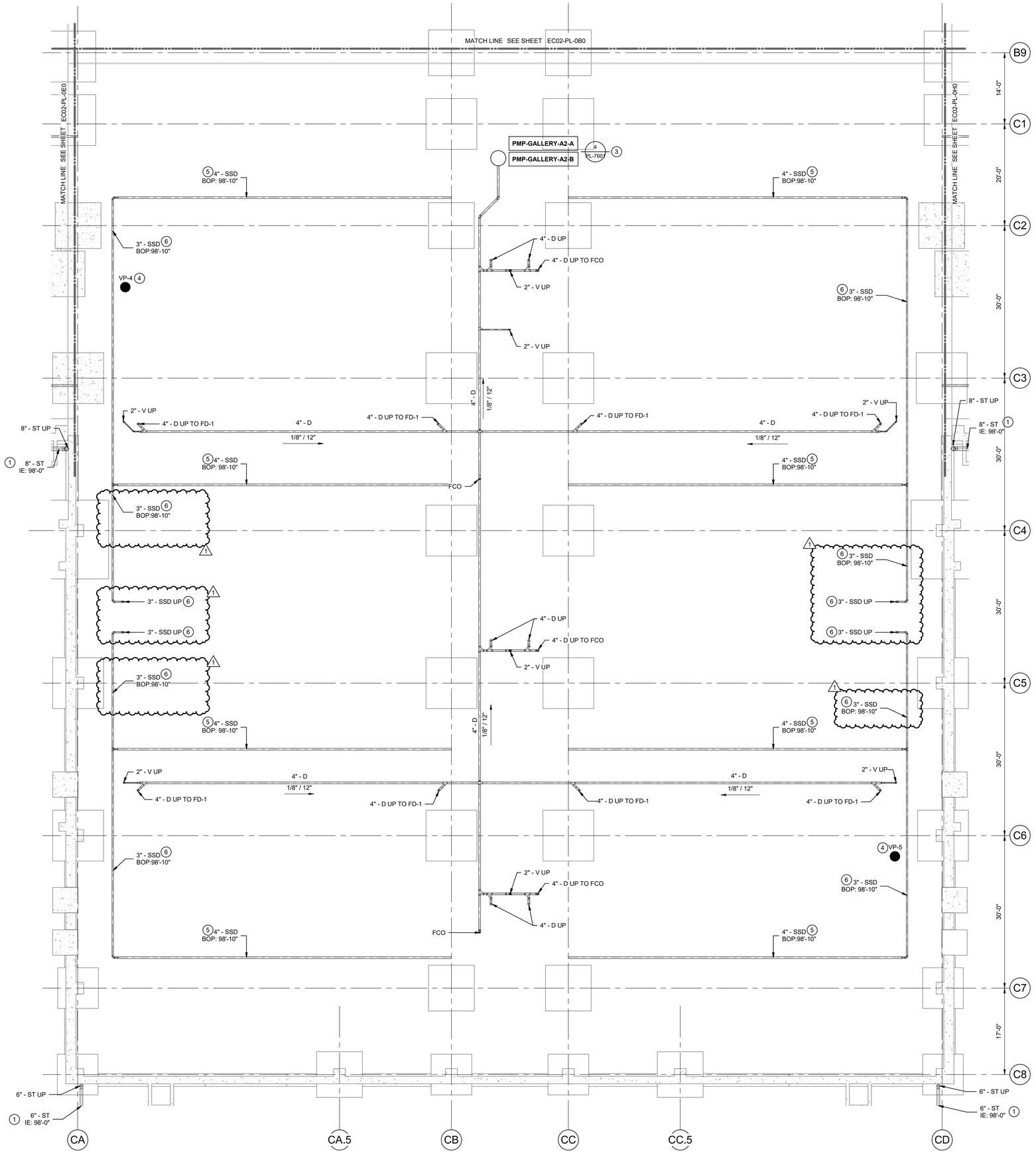

GENERAL NOTES

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B. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES REFER TO DWG PL-0000.
C. SLOPE SANITARY PIPE 1/4" PER 1'-0" WHERE LOCATED ABOVE GRADE.
D. SLOPE ALL OTHER DRAIN PIPE 1/8" PER 1'-0" UNLESS NOTED OTHERWISE.
E. FINISHED 1ST FLOOR ELEVATION AT 100'-0".
F. PROVIDE CLEANOUT AT BASE OF ALL DRAIN STACKS AND VENT STACKS/RISERS.
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.

KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP. REFER TO CIVIL DRAWING FOR LOCATION OF PIPE.
2. NOT USED.
3. PROVIDE FIBERGLASS BASIN WITH ANTI-FLOAT COLLAR AND FLANGED LID SEALED AIR TIGHT. BASIN AT 36" SET DEPTH OF BASIN AT 42". MANUFACTURER A.K. INDUSTRIES MODEL 36 OR EQUAL.
4. VAPOR MONITORING POINT. REFER TO DETAIL 1 ON DRAWING PL-7600. COORDINATE WITH ARCHITECTURAL CONTACTOR FOR VAPOR BARRIER AND ANY OTHER MATERIALS REQUIRED.
5. PROVIDE 4" SSD SCREEN CAST PIPE. MANUFACTURER BUFFALO WELL PRODUCTS S-40 PVC 0.020 F.J. ASTM 1784 WITH ENDS CONFORMING TO ASTM F-480 4P F.J. OR EQUAL. CAP ALL PIPE AT END OF LINE AND INSTALL PER MANUFACTURERS RECOMENDATIONS. ALL ENDS SHALL BE NTP EXCEPT WHERE PIPE CONNECTS TO 3" SCH 40 PIPE. PROVIDE PLAIN ENDS FOR 3" PIPE. CONNECTIONS.
6. ALL 3" PIPE HEADERS AND UP THRU SLAB SHALL BE SCH 40 NON-PERFORATED PIPING, PLAIN ENDS.

ch2m. SM
Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.: 683694
CLIENT PROJECT NO.:
DRAWN: D. NIEMCZYK
REVIEWED: D. SEGER
DESIGNED: M. HORNFECK
APPROVED: P. CZERWINSKI
NOTICE:
STAMP:

HOPE FURRER ASSOCIATES

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No.	Description	Date
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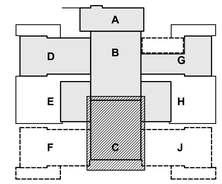

KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING
UNDERGROUND
SECTOR C
FLOOR PLAN

ACAD FILE:
DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0C0

10/16/2018 1:24:03 PM

KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP. REFER TO CIVIL DRAWINGS FOR LOCATION OF PIPE.
2. TERMINATE 6" ABOVE GRADE AND PROVIDE CLEAN OUT AT BASE OF STACK. COORDINATE EXACT LOCATION OF 3" STORM DRAIN RISER WITH IT MODULE MANUFACTURER.
3. COORDINATE ALL PIPE ROUTING AND P.O.C. WITH IT MODULE MANUFACTURER.
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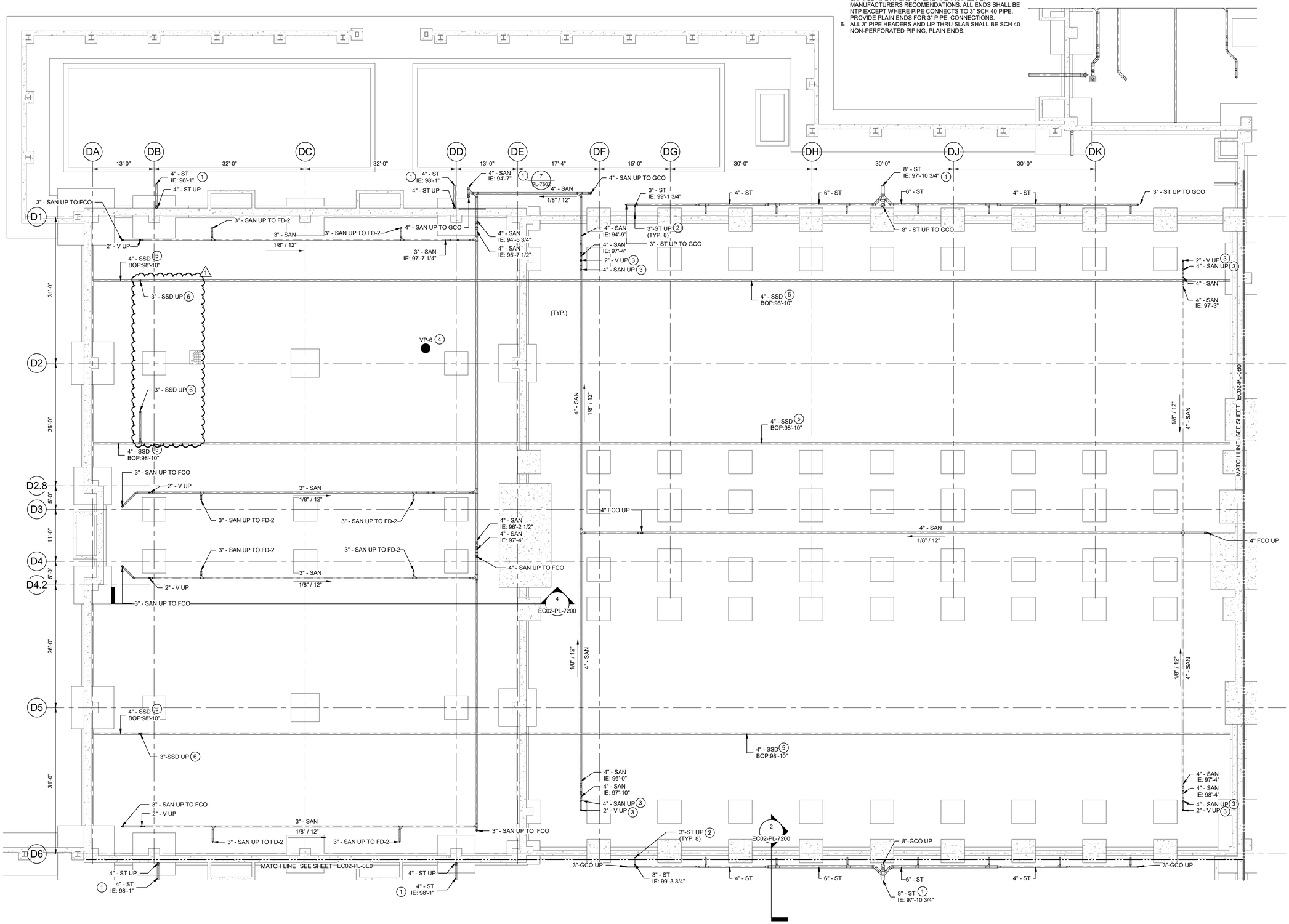
E. FINISHED 1ST FLOOR ELEVATION AT 100'-0".
F. PROVIDE CLEANOUT AT BASE OF ALL DRAIN STACKS AND VENT STACKS/RISERS.
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.



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Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.: 683694
CLIENT PROJECT NO.:

DRAWN: D. NIEMCZYK
REVIEWED: D. SEGER
DESIGNED: M. HORNFECK
APPROVED: P. CZERWINSKI
NOTICE:
STAMP:

HOPE FURRER ASSOCIATES

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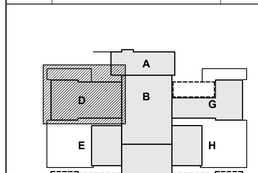

KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING UNDERGROUND SECTOR D FLOOR PLAN

ACAD FILE:
DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0D0

10/16/2018 1:24:06 PM

KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP. REFER TO CIVIL DRAWINGS FOR LOCATION OF PIPE.
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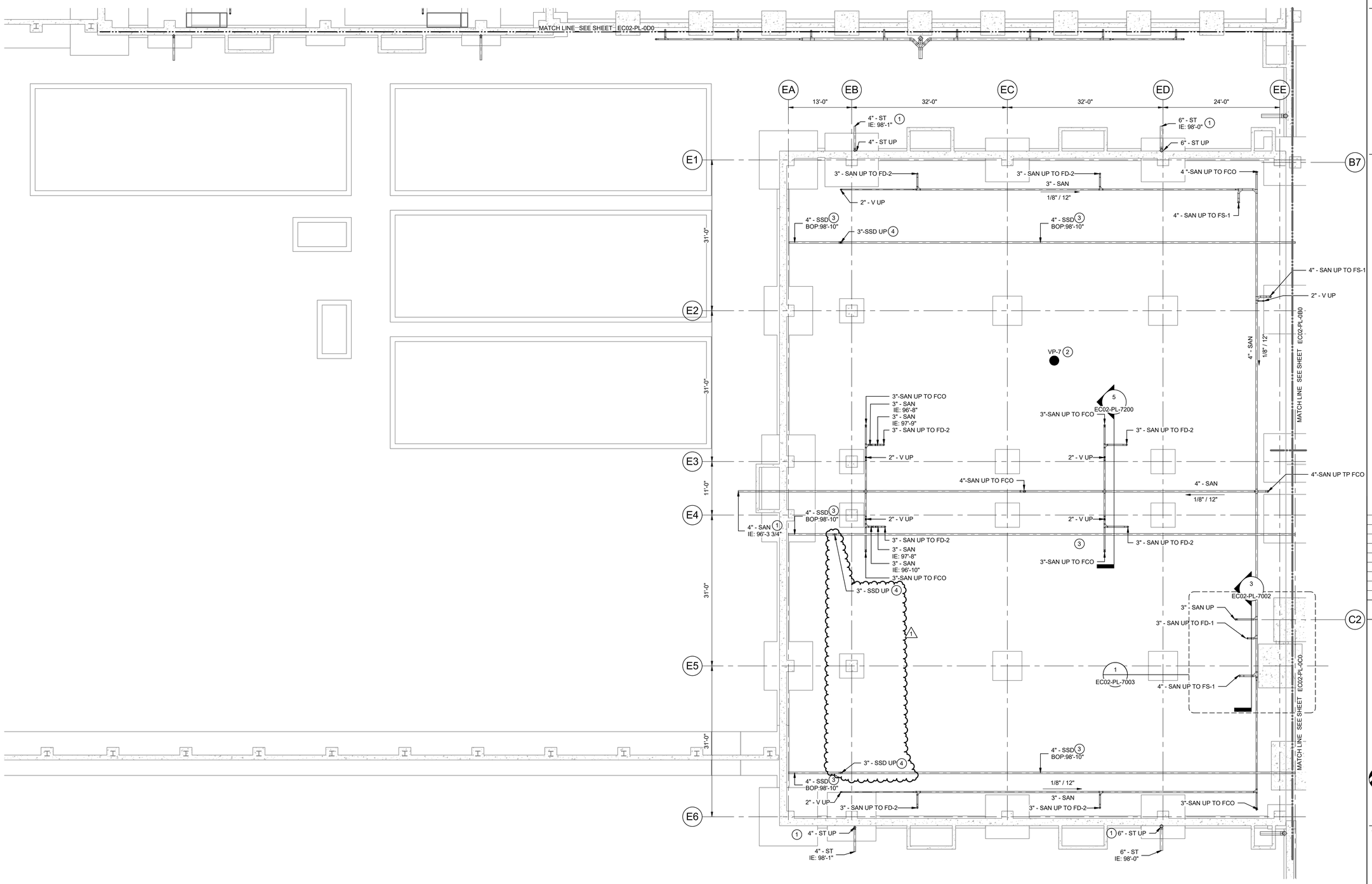
E. FINISHED 1ST FLOOR ELEVATION AT 100'-0".
F. PROVIDE CLEANOUT AT BASE OF ALL DRAIN STACKS AND VENT STACKS/RISERS.
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.



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400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.: 683694
CLIENT PROJECT NO.:
DRAWN: D. NIEMCZYK
REVIEWED: D. SEGER
DESIGNED: M. HORNFECK
APPROVED: P. CZERWINSKI
NOTICE:
STAMP:

HOPE FURRER ASSOCIATES

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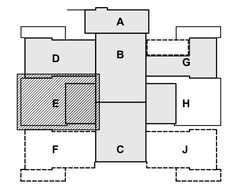

KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING
UNDERGROUND
SECTOR E
FLOOR PLAN

ACAD FILE:
DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0E0

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KEYED NOTES

1. INSTALL DRAIN TO 5'-0" OUTSIDE OF BUILDING. COORDINATE WITH CIVIL CONTRACTOR FOR HOOK-UP REFER TO CIVIL DRAWINGS FOR LOCATION OF PIPE.
2. PROVIDE MARKER ABOVE GRADE AND TAG ON FUTURE SANITARY (PROVIDE PIPE SIZE ON MARKER).
3. TERMINATE 6" ABOVE GRADE AND PROVIDE CLEAN OUT AT BASE OF STACK. COORDINATE EXACT LOCATION OF 3" STORM DRAIN RISER WITH IT MODULE MANUFACTURER.
4. COORDINATE ALL PIPE ROUTING AND P.O.C. WITH IT MODULE MANUFACTURER.
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7. ALL 3" PIPE HEADERS AND UP THRU SLAB SHALL BE SCH 40 NON PERFORATED PIPING, PLAIN ENDS.
8. CAP 4" SSDS FOR FUTURE IT MODULE. PROVIDE MARKER ABOVE GRADE AND TAG ON FUTURE SSDS (PROVIDE PIPE SIZE ON MARKER).

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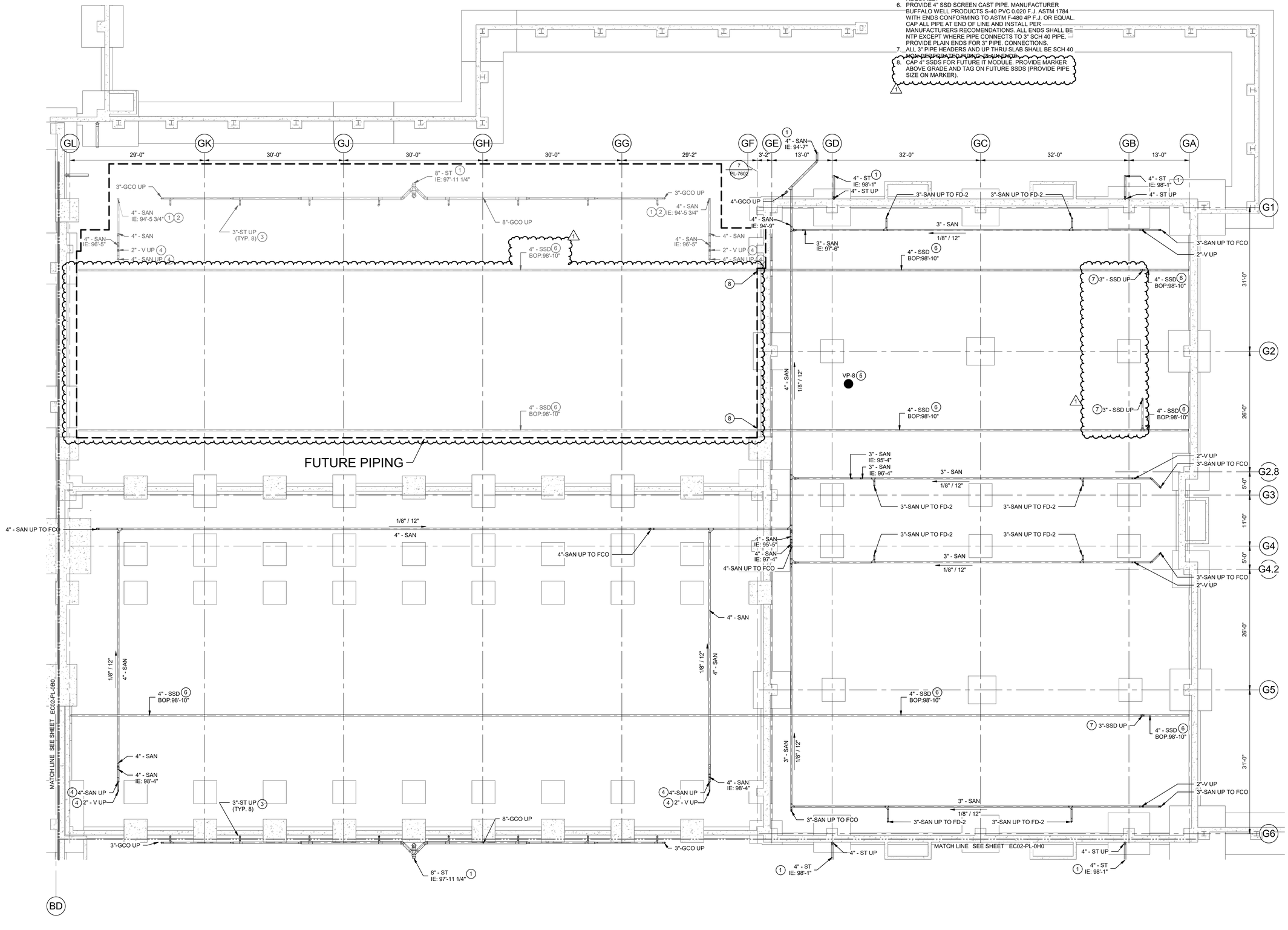

ch2m. SM
Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO.: 683694
CLIENT PROJECT NO.:
DRAWN: D. NIEMCZYK
REVIEWED: D. SEGER
DESIGNED: M. HORNFECK
APPROVED: P. CZERWINSKI
NOTICE:
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HOPE FURRER ASSOCIATES

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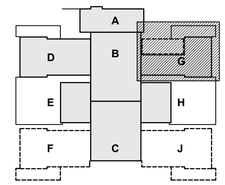

KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING
UNDERGROUND
SECTOR G
FLOOR PLAN

ACAD FILE:
DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0G0

10/16/2018 1:24:10 PM

KEYED NOTES

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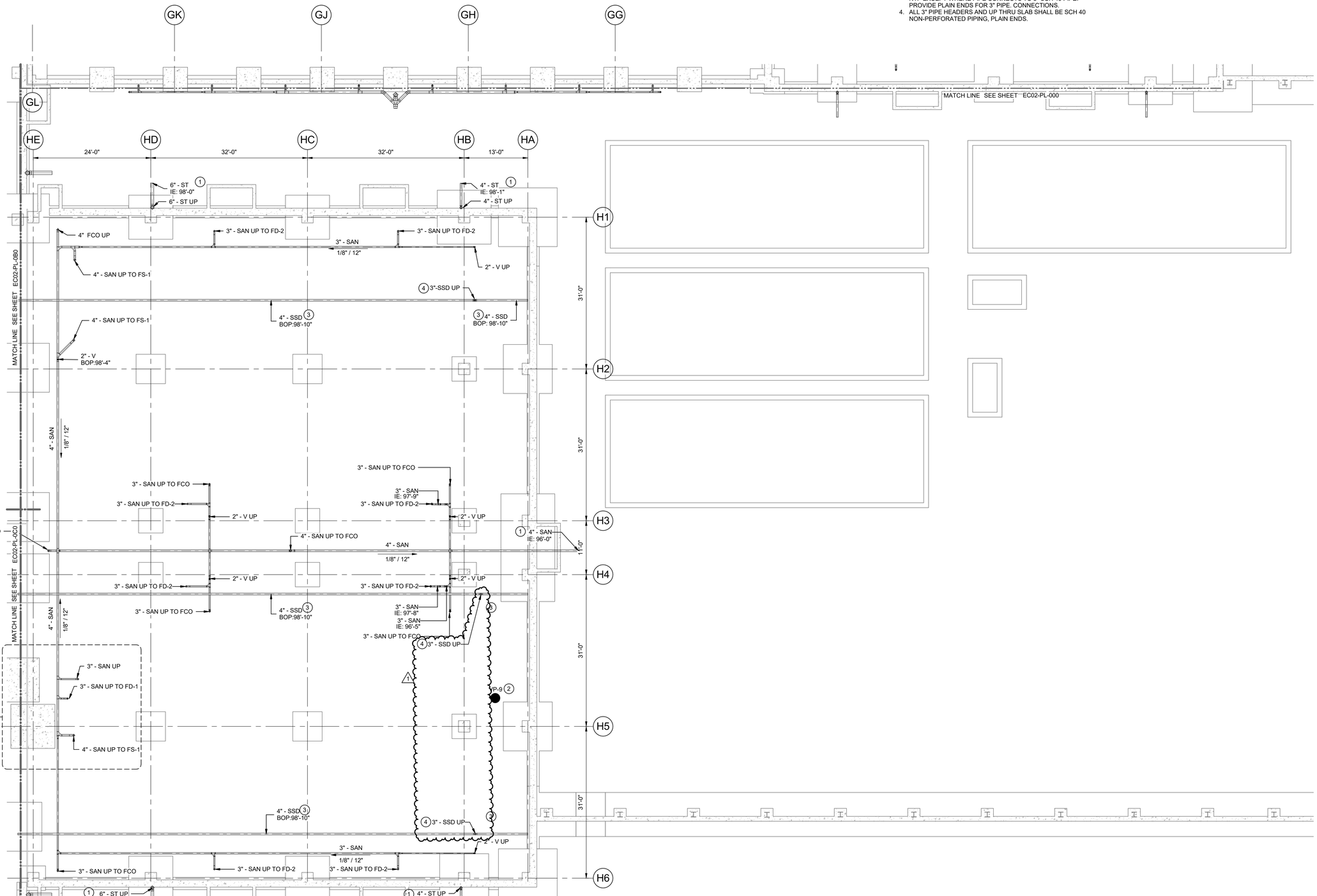
G. MOUNT ALL WALL HYDRANTS 3'-6" ABOVE GRADE.



ch2m. SM
Pittsburgh Office
400 Industry Drive, Suite 100
Pittsburgh, PA 15275

PROJECT NO:	CLIENT PROJECT NO.:
683694	
DRAWN: D. NIEMCZYK	REVIEWED: D. SEGER
DESIGNED: M. HORNFECK	APPROVED: P. CZERWINSKI
NOTICE:	STAMP:

HOPE FURRER ASSOCIATES

Dewberry®

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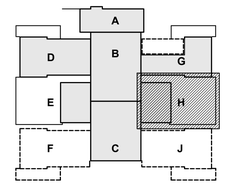

KEY PLAN

PLAN TRUE

140 Old Orangeburg Road
Orangeburg, NY 10962

PROJECT SYCAMORE: NA-NE-C02

TITLE:

PLUMBING
UNDERGROUND
SECTOR H
FLOOR PLAN

ACAD FILE: DRAWING SCALE: 1/8" = 1'-0"

DRAWING NUMBER:

EC02-PL-0H0

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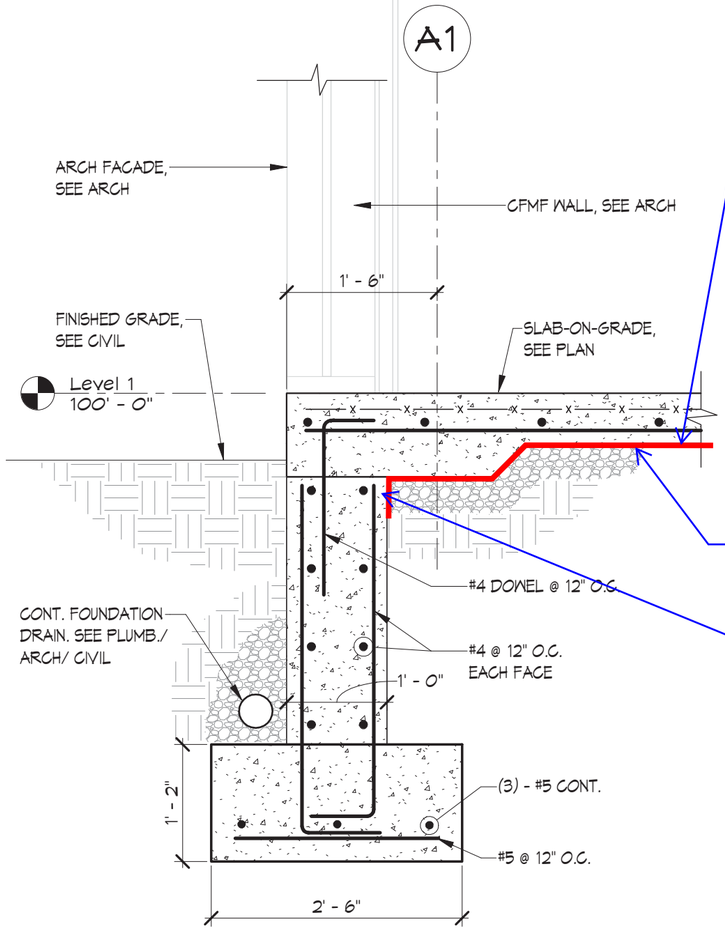
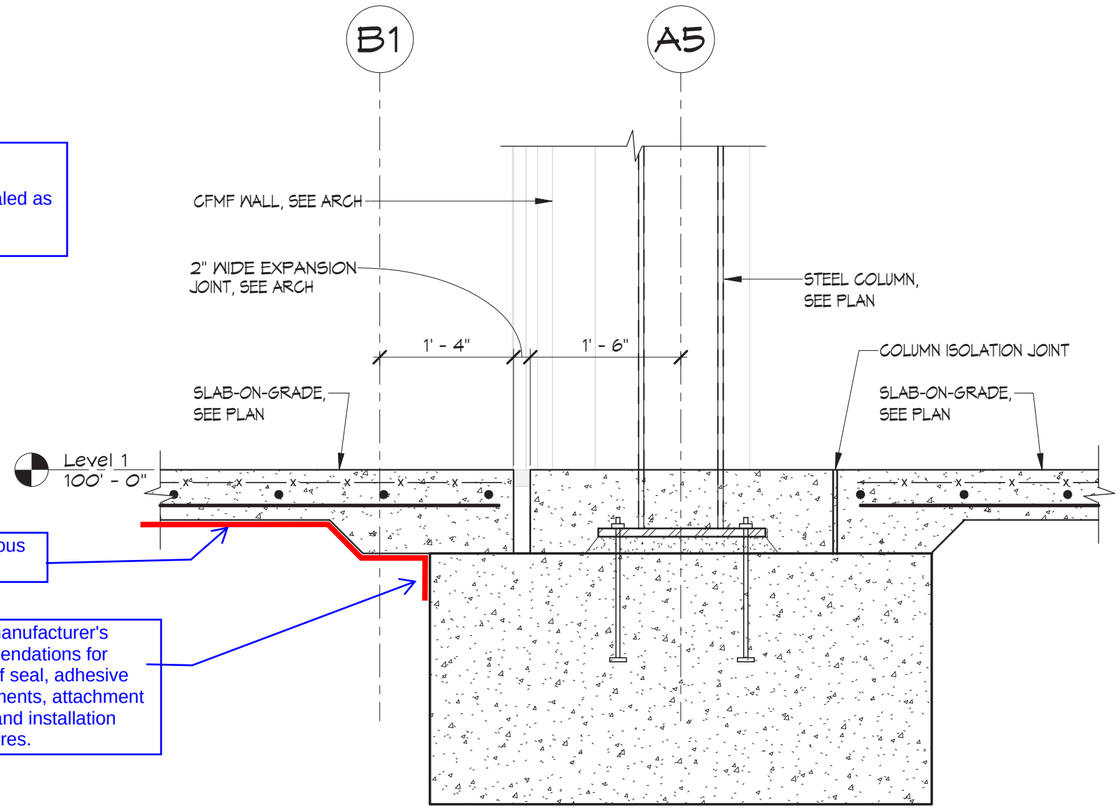
VAPOR BARRIER TYPICAL LAYOUT AND PLACEMENT



At seams the vapor barriers should be overlapped and sealed as per manufacturer's specifications

vapor barrier, continuous under slab.

follow manufacturer's recommendations for length of seal, adhesive requirements, attachment details and installation procedures.



DETAIL 6 S0-7620 3/4" = 1'-0"

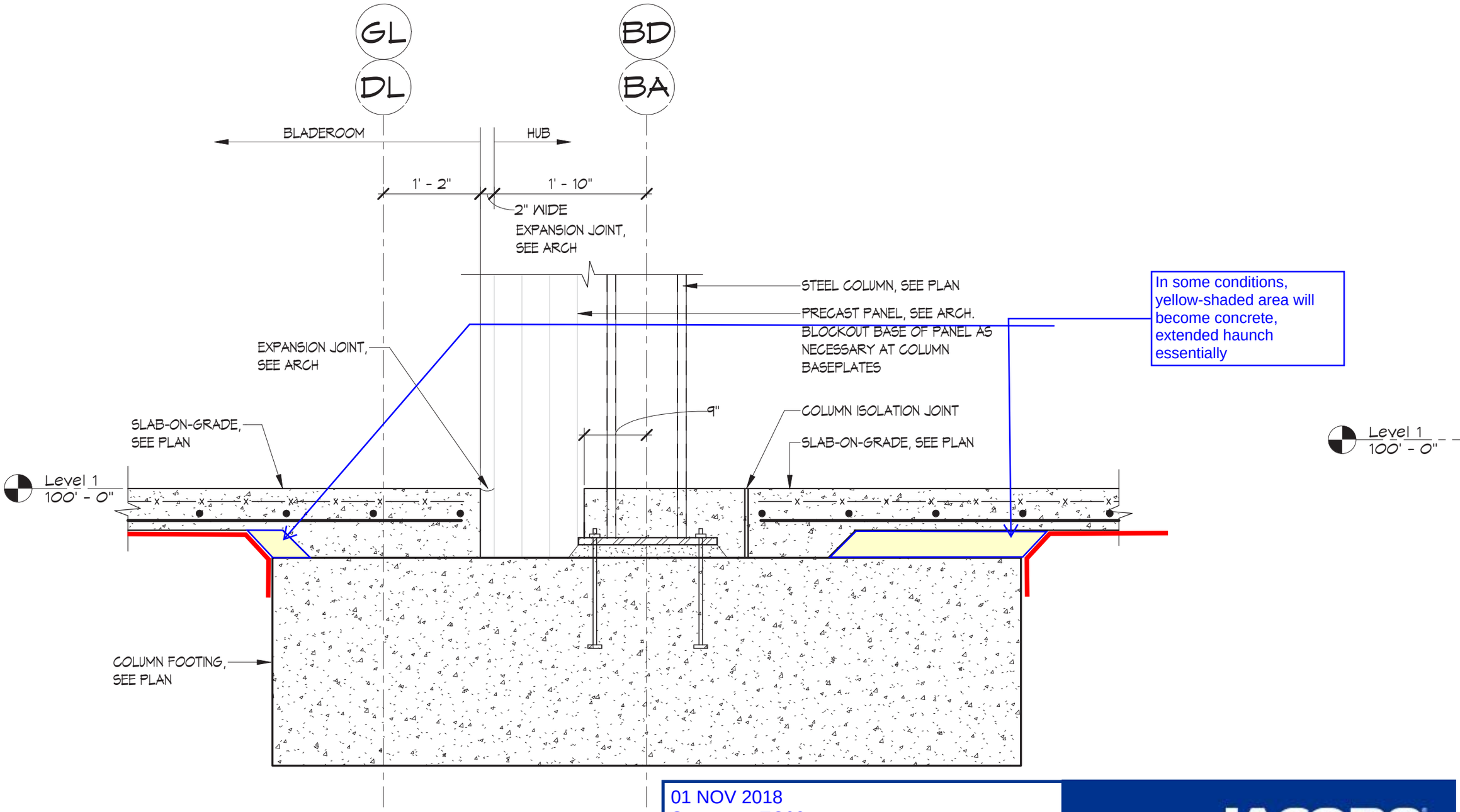
AT STOREFRONT

DETAIL 7 S0-7620 3/4" = 1'-0"

AT EXPANSION JOINT BTW ADMIN AND HUB

01 NOV 2018
Sycamore EC02
SK-RFI-192 - 1 of 2
Typical Underslab Vapor Barrier Details

JACOBS



In some conditions, yellow-shaded area will become concrete, extended haunch essentially

01 NOV 2018
Sycamore EC02
SK-RFI-192 - 2 of 2
Typical Underslab Vapor Barrier Details

JACOBS

DETAIL 2 S0-7621 3/4" = 1'-0"

AT BLADEROOM / HUB INTERFACE

VAPOR BARRIER MANUFACTURER'S SPECIFICATION

STEGO® WRAP 15-MIL
A "true" VAPOR BARRIER
ASTM E 1745 Class A-B-C Compliant

15 mil

STEGO® WRAP 15-MIL VAPOR BARRIER

represents a recent breakthrough in state-of-the-art plastic extrusion processes. By combining multi-layer extrusion technology with our proven trade secret blend of prime virgin resins and additives, we at Stego Industries have produced an ASTM E 1745 Class A polyolefin **VAPOR BARRIER**. Stego's emphasis has always been very low permeance (the most important quality according to industry experts). Our latest blend continues to provide next to zero permeance, while exceeding ASTM E 1745 Class A requirements for puncture resistance and tensile strength. All this comes with the same competitive pricing our customers have come to expect.

FEATURES & BENEFITS

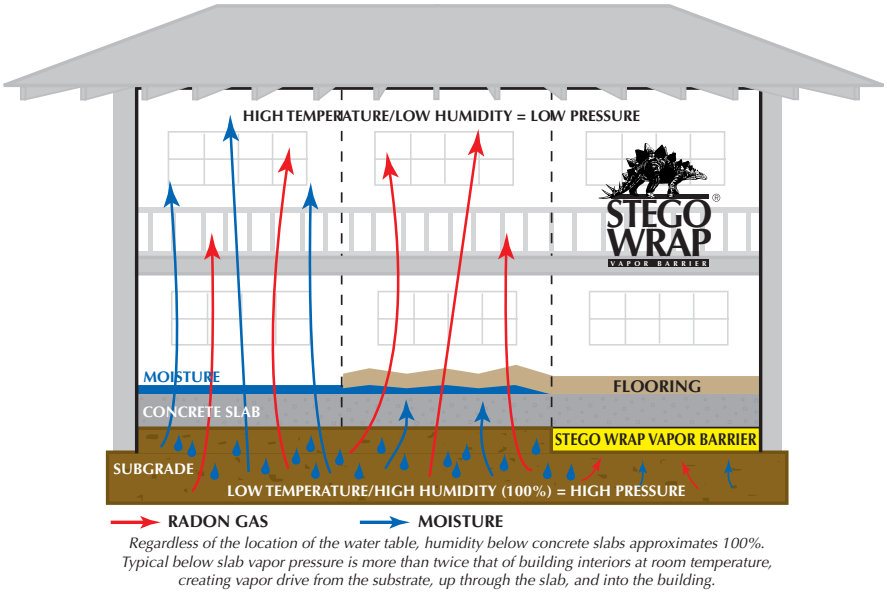
Unsurpassed Permeance Characteristics

Life of the Building Protection

Exceptional Tear and Puncture Resistance

Easy, Reliable Installation

Competitively Priced



Regardless of the location of the water table, humidity below concrete slabs approximates 100%. Typical below slab vapor pressure is more than twice that of building interiors at room temperature, creating vapor drive from the substrate, up through the slab, and into the building.

THE STEGO® ADVANTAGES

SUPERIOR DEFENSE Against Floor Failures:

Experts say "[t]he need for a vapor barrier (as opposed to a vapor retarder) is becoming increasingly clear." Concrete Construction Magazine, August 2003, p.18.

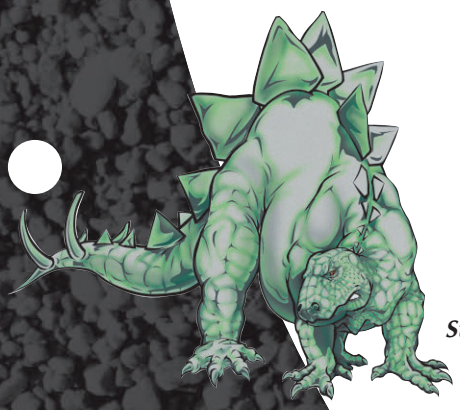
Infiltration of moisture through concrete slabs is a major building defect liability. Stego Wrap 15-mil Vapor Barrier has an extremely low water vapor transmission rate (WVTR)(0.006 grains/ft²/hour) preventing water vapor, soil gases (i.e. Radon), alkaline salts and soil sulfates from compromising the integrity of the building envelope and leading to serious problems with the concrete slab, floor coverings and indoor air quality. Stego Wrap 15-mil is the best protection against these costly failures.

MOLD PREVENTION:

Mold needs three things to survive: moisture, sustained temperature (between 50° and 122° F), and a food source (dust, drywall, etc.). In any given building environment, contractors can only control one of these variables: moisture. Mold spores are present in 100% of building interiors. If moisture is allowed into your building environment, mold can and will grow. Toxic molds like Stachybotyrus can be fatal for nearly 5% of people (Institute of Medicine 1993), and cause a variety of serious health problems in others. Several recent well-publicized cases involving toxic mold have resulted in multimillion-dollar insurance settlements. Many of the nation's leading Insurance companies have severely limited or removed coverage for mold claims fearing that these claims will bankrupt their companies. Now more than ever, it is critically important that extra attention be paid to preventing the intrusion of moisture vapor from your below-slab environment. Stego Wrap 15-mil Vapor Barrier offers the level of protection that many architects are now seeking and is considered to be inexpensive insurance against these costly failures.

LONGEVITY AND STRENGTH:

Stego Wrap 15-mil Vapor Barrier is NOT made with recycled materials and will not disintegrate. Prime, virgin resins are the key. Molecules within Stego Wrap 15-mil "interlock" to provide strength, durability and unprecedented resistance to moisture vapor and radon gas. Stego Wrap 15-mil's puncture resistance is legendary. Stego Wrap 15-mil will not tear, crack, flake, snag or puncture, even when 18,000 lb. laser-screed machines are driving directly across the barrier. (See the reverse side for Stego Wrap 15-mil Vapor Barrier's specifications)



Stego Industries LLC · 27442 Calle Arroyo, Suite A · San Juan Capistrano, CA 92675
Tel: 949-493-5460 · Fax: 949-493-5165 · WWW.STEGOINDUSTRIES.COM

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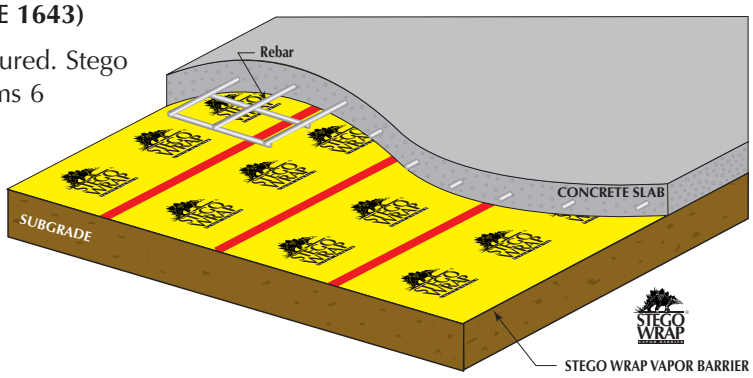
STEGO® WRAP 15-MIL SPECIFICATIONS

PROPERTIES	TEST METHOD	ASTM E 1745 Class A Requirements	TEST RESULT	EXPLANATION
Permeance	ASTM E 96	0.3 perms	0.012 perms * 0.006 WVTR	Very Impermeable to Water Vapor
Puncture Resistance	ASTM D 1709	2200 grams	Method A 2700 grams Method B 2445 grams	Resistant to puncturing from construction abuse
Tensile Strength	ASTM D 882	45.6 lbf./in.	76.6 lbf./in.	Will not tear easily
Chemical Resistance	ASTM E 154		Unaffected	Acids, alkali and fungi in soil or trace chemicals will not affect membrane
Life Expectancy	ASTM E 154		Indefinite	Will not deteriorate/decompose below concrete slabs when buried
Thickness			15 mils	Stronger, tougher and less permeable than much thicker membranes
Roll Dimensions			14 ft. X 140 ft.	1,960 ft²/roll - allows for a minimum of seams
Roll Weight			140 lbs.	Easy to unroll and install

All testing from "production" runs at labs independent of Stego Industries.
*** WVTR water vapor transmission rate**

INSTALLATION INSTRUCTIONS: (Based on ASTM E 1643)

Unroll Stego Wrap over the area where the slab is to be poured. Stego Wrap should completely cover the pour area. Overlap seams 6 inches and tape using Stego Tape. All penetrations and blockouts should be sealed using a combination of Stego Wrap, Stego Tape and/or Stego Mastic. If the Stego Wrap is damaged, cut a rectangular piece from the Stego Wrap roll, place over the damaged area, and tape around all edges. Concrete may be poured directly on the barrier or a sand/gravel base can be used.



STEGO® TAPE:

STEGO WRAP RED POLYETHYLENE TAPE (4" x 180'/roll) is specially designed to seal seams and penetrations on Stego Wrap installations. The rubber-based, pressure-sensitive adhesive provides permanent bonding and quick-stick properties. The area to be bonded should be free of dust, dirt and moisture. If properly installed Stego Tape will provide years of continuous protection.

WARRANTY:

STEGO INDUSTRIES, LLC believes, to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions and installations are not within our control, STEGO INDUSTRIES, LLC does not guarantee results from use of the information provided and disclaims all liability from any loss or damage. NO WARRANTY EXPRESS OR IMPLIED IS GIVEN AS TO THE MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR OTHERWISE WITH RESPECT TO THE PRODUCTS REFERRED TO.

DISTRIBUTED BY:

10/03

WWW.STEGOINDUSTRIES.COM

Stego Industries, LLC • 27442 Calle Arroyo, Suite A • San Juan Capistrano, CA 92675 • TEL: 949-493-5460 • FAX: 949-493-5165

Stego® Wrap 15-mil Class A

A "true" VAPOR BARRIER

STEGO INDUSTRIES, LLC

Vapor Retarders
07260, 03300

1. Product Name

Stego Wrap 15-mil
Class A Vapor Barrier

2. Manufacturer

Stego Industries, LLC
27442 Calle Arroyo, Suite A
San Juan Capistrano, CA 92675
Sales, Technical Assistance
Ph: (877) 464-7834
Fx: (949) 493-5165
www.stegoindustries.com

3. Product Description

USES: Stego Wrap 15-mil is used as a true below-slab vapor barrier, and as a protection course for below grade waterproofing applications.
COMPOSITION: Stego Wrap 15-mil Vapor Barrier is a multi-layer plastic extrusion manufactured with only the highest grade of prime, virgin, polyolefin resins.
SIZE: Stego Wrap 15-mil comes in rolls 14' x 140' or 1,960 ft^2
WEIGHT: Stego Wrap 15-mil rolls weigh approximately 141 lb.

4. Technical Data

APPLICABLE STANDARDS
American Society for Testing & Materials (ASTM)

- ASTM E 1745 - Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs
- ASTM D 882 - Test Methods for Tensile Properties of Thin Plastic Sheeting
- ASTM D 1709 - Test Methods for Impact Resistance of Plastic Film by Free-Falling Dart Method
- ASTM E 96 - Test Methods for Water Vapor Transmission of Materials
- ASTM E 154 - Test Methods for Water Vapor Retarders Used in Contact with Earth under Concrete Slabs, on Walls, or as Ground Cover
- ASTM E 631 - Terminology of Building Constructions
- ASTM F 1249 - Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor
- ASTM E 1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

American Concrete Institute (ACI)

- ACI 302.1R-96 Minimum Thickness (10-mils)

ENVIRONMENTAL FACTORS
Stego Wrap 15-mil can be used in systems for the control of soil gases (radon, methane), soil poisons (oil by-products) and sulfates.

5. Installation

UNDERSLAB: Unroll Stego Wrap 15-mil Vapor Barrier over an aggregate, sand or tamped earth base. Overlap all seams a minimum of 6" and tape using Stego Tape. All penetrations must be sealed using a combination of Stego Wrap, Stego Tape and/or Stego Mastic.

VERTICAL WALL: Install Stego Wrap 15-mil Vapor Barrier over the waterproofing membrane while still tacky. Mechanically fasten Stego Wrap to the wall at the top with termination bar and concrete nails. Drape Stego Wrap down across the footer and under the french drain.

6. Availability & Cost

Stego Wrap 15-mil is available nationally via building supply distributors. For current cost information, contact your local Stego Wrap distributor or Stego Industries' sales department.

7. Warranty

Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided and disclaims all liability from any loss or damage. No warranty, express or implied, is given as to the merchantability, fitness for a particular purpose, or otherwise with respect to the products referred to.

8. Maintenance

None required.

9. Technical Services

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries' technical assistance department or via the website:
www.stegoindustries.com

10. Filing Systems

- SpecSource
- Stego Industries' website
- MasterSpec

TABLE 1: PHYSICAL PROPERTIES OF STEGO WRAP 15-MIL VAPOR BARRIER

Property & Test	Stego Wrap 15-Mil
Underslab Vapor Retarders, ASTM E 1745 Class A	Exceeds
Water Vapor Permeance, ASTM E 96 & ASTM F 1249	0.012 perms (*0.006 WVTR)
Tensile Strength, ASTM D 882	76.6 lbf./in.
Puncture Resistance, ASTM D 1709	2445 grams
Chemical Resistance, ASTM E 154	Unaffected
Life Expectancy, ASTM E 154	Indefinite

*** WVTR water vapor transmission rate**

Stego® Tape

STEGO INDUSTRIES, LLC

Vapor Retarders
07260, 03300

1. Product Name
Stego Tape

2. Manufacturer
Stego Industries, LLC
27442 Calle Arroyo, Suite A
San Juan Capistrano, CA 92675
Sales, Technical Assistance
Ph: (877) 464-7834
Fx: (949) 493-5165
www.stegoindustries.com

3. Product Description
USES: Stego Tape is a low permeance tape designed for protective sealing, hanging, seaming, splicing, and patching applications where a highly conformable material is required. It has been engineered to bond specifically to Stego Wrap 10-mil and 15-mil, making it ideal for sealing Stego Wrap seams and penetrations.
COMPOSITION: Stego Tape is composed of a high-density polyethylene film and a rubber-based, pressure-sensitive adhesive.
SIZE: Stego Tape comes in 4" wide, 180 ft. long rolls. Stego Tape ships 12 rolls in a case.

4. Technical Data
APPLICABLE STANDARDS
American Society for Testing & Materials (ASTM)

- ASTM D 1000 Standard Test Method for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications
- ASTM E 1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

5. Installation
SEAMS:
Overlap Stego Wrap 6 inches and seal with Stego Tape. Make sure the area of adhesion is free from dust, dirt and moisture to allow maximum adhesion of the pressure sensitive tape.

PIPE BOOTS:

1) Cut a piece of Stego Wrap.
   Width: minimum 12"
   Length: 1 1/2 times the pipe circumference
2) With scissors, cut slits half the width of the film.
3) Wrap boot around pipe and tape onto pipe, completely taping the base to Stego Wrap using Stego Tape.

Stego Tape should be installed above 40 °F

Note: See Stego's installation instructions for complete instructions and detailed drawings. Each user should make their own tests to determine the products

suitability for their own intended use and shall assume all risks and liability in connection therewith.

6. Availability & Cost
Stego Tape is available nationally via building supply distributors. For current cost information, contact your local Stego distributor or Stego Industries' sales department.

7. Warranty
Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided and disclaims all liability from any loss or damage. No warranty, express or implied, is given as to the merchantability, fitness for a particular purpose, or otherwise with respect to the products referred to.

8. Maintenance
None required.

9. Technical Services
Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries' technical assistance department or by visiting the website: www.stegoindustries.com

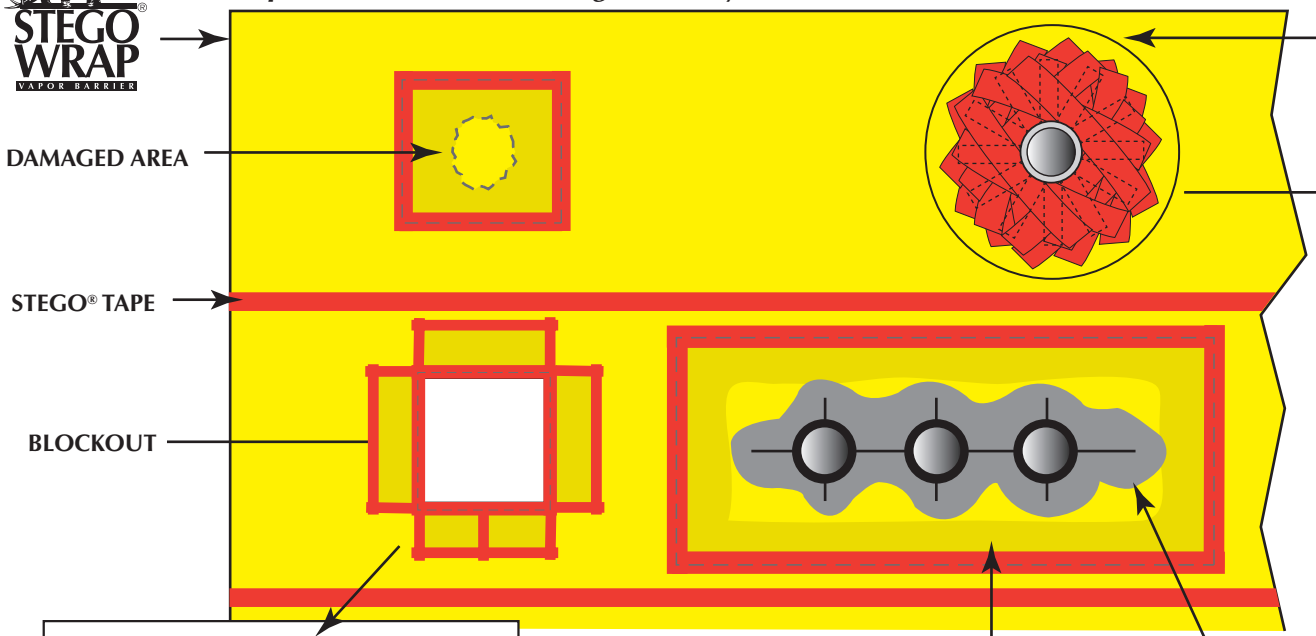
10. Filing Systems
• Stego Industries' website

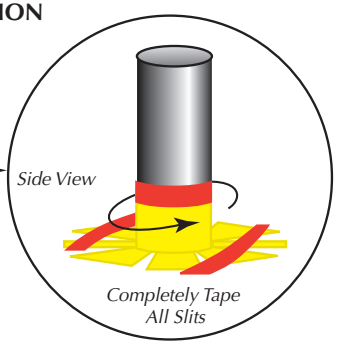
TABLE 1: PHYSICAL PROPERTIES OF STEGO TAPE

Property	Stego Tape
Total Thickness	8 mils
Permeance	0.23 perms
Tensile Strength	25 lbs./in. width
Elongation (at break)	80%
Adhesion	35-oz./in. width
Ultraviolet Resistance	Excellent

FIGURE TWO

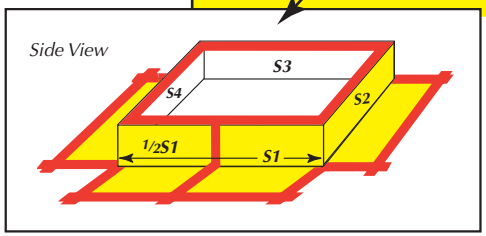
All patches must cover damaged area by 6" on all sides.

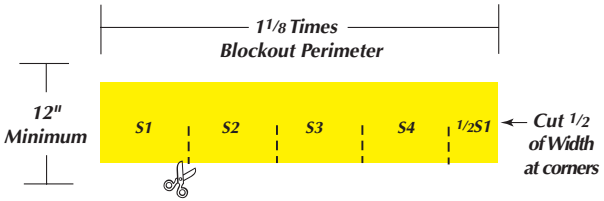




PIPE PENETRATION
CONSTRUCTING A PIPE BOOT FROM STEGO WRAP

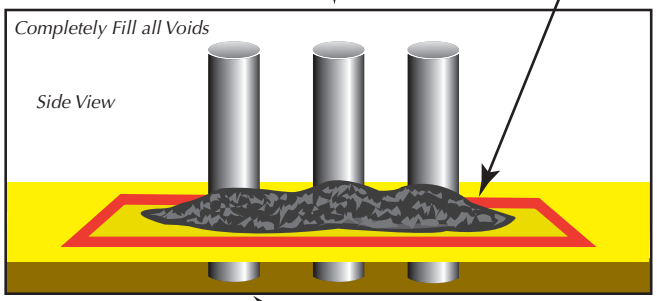
1) Cut a piece of Stego Wrap.
Width: Minimum 12"
Length: 1½ times the pipe circumference
2) With scissors, cut slits half the width of the film.
3) Wrap boot around pipe as shown; tape onto pipe and completely taping the base to Stego Wrap barrier using Stego Tape.





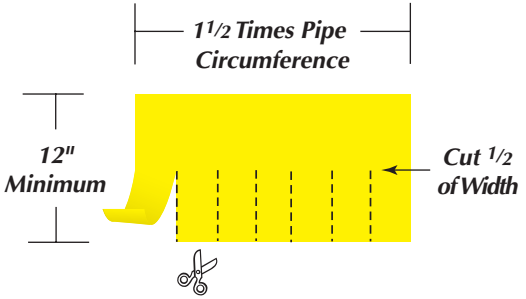
BLOCKOUT
CONSTRUCTING A BLOCKOUT BOOT FROM STEGO WRAP

1) Cut a piece of Stego Wrap.
Width: Minimum 12"
Length: 1⅛ times perimeter of blockout
• (S1 + S2 + S3 +S4 + ½ S1)
2) With scissors, cut flaps half the width of the film at the corners of each side of the blockout.
3) Wrap the boot around the blockout as shown; tape the overlap, tape the film onto the top of the blockout and completely tape the flaps to Stego Wrap barrier using Stego Tape.



PIPE PENETRATION ALTERNATE
USING STEGO MASTIC TO SEAL PIPES

1) Cut out a small area around pipes.
2) Cut a patch of Stego Wrap extending at least 6" past the cut out in all directions.
3) Cut X's or small circles in the patch and install over pipes.
4) Overlap at least 6" and tape with Stego Tape.
5) Build up 40-60 mils of mastic, or as needed to completely fill all voids between the pipe and Stego Wrap.
6) Allow 24 hours for maximum cure before concrete pour.



APPENDIX F - PRE-SURVEY QUESTIONAIRES AND CHEMICAL SURVEY RESULTS

Soil Vapor Intrusion - Structure Sampling Building Questionnaire

Structure ID : _____

Site No. : _____ Site Name : Data Center

Date: 12/3/19 Time: 11:30

Structure Address : _____

Preparer's Name & Affiliation : Matthew Del Balzo (GZA)

Residential ? ☐ Yes ☒ No Owner Occupied ? ☐ Yes ☐ No Owner Interviewed ? ☐ Yes ☐ No

Commercial ? ☒ Yes ☐ No Industrial ? ☐ Yes ☐ No Mixed Uses ? ☐ Yes ☐ No

Identify all non-residential use(s) : _____

Owner Name : JP Morgan Chase Owner Phone : ( )_____-_____

Secondary Owner Phone : ( )_____-_____

Owner Address (if different) : _____

Occupant Name : _____ Occupant Phone : ( )_____-_____

Secondary Occupant Phone : ( )_____-_____

Number & Age of All Persons Residing at this Location : Not active, under construction

Additional Owner/Occupant Information : _____

Describe Structure (style, number floors, size) : One story commercial building, slab-on-grade, (passive SSDS / vapor barrier).

Approximate Year Built : 2018 Is the building Insulated? ☐ Yes ☐ No

Lowest level : ☒ Slab-on-grade ☐ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : Active construction, anticipated 8-hour work schedule currently / when active data center

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed : _____

Floor Condition : ☒ Good (few or no cracks) ☐ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : Sumps, drains in several rooms

Identify other floor penetrations & details : _____

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : No visible holes, penetrations observed.

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : No wet surfaces observed

Heating Fuel : ☐ Oil ☐ Gas ☐ Wood ☒ Electric ☐ Other : _____

Heating System : ☒ Forced Air ☐ Hot Water ☐ Other : _____

Hot Water System : ☐ Combustion ☒ Electric ☐ Boilermate ☐ Other: _____

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer vented to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : _____

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : Several fans used in battery, electrical, and blade rooms

Soil Vapor Intrusion - Structure Sampling Building Questionnaire

Structure ID : _____

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):
Minor chemical storage, latex painting observed during VP-3 sampling event.

Attached garage ? ☐ Yes ☒ No Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☒ Yes ☐ No What/Where ? New furniture in office bldg (VP-2) & new carpet

Recent **painting** or **staining** ? ☒ Yes ☐ No Where ? : VP-3

Any **solvent** or **chemical-like** odors ? ☒ Yes ☐ No Describe : New paint @ VP-3

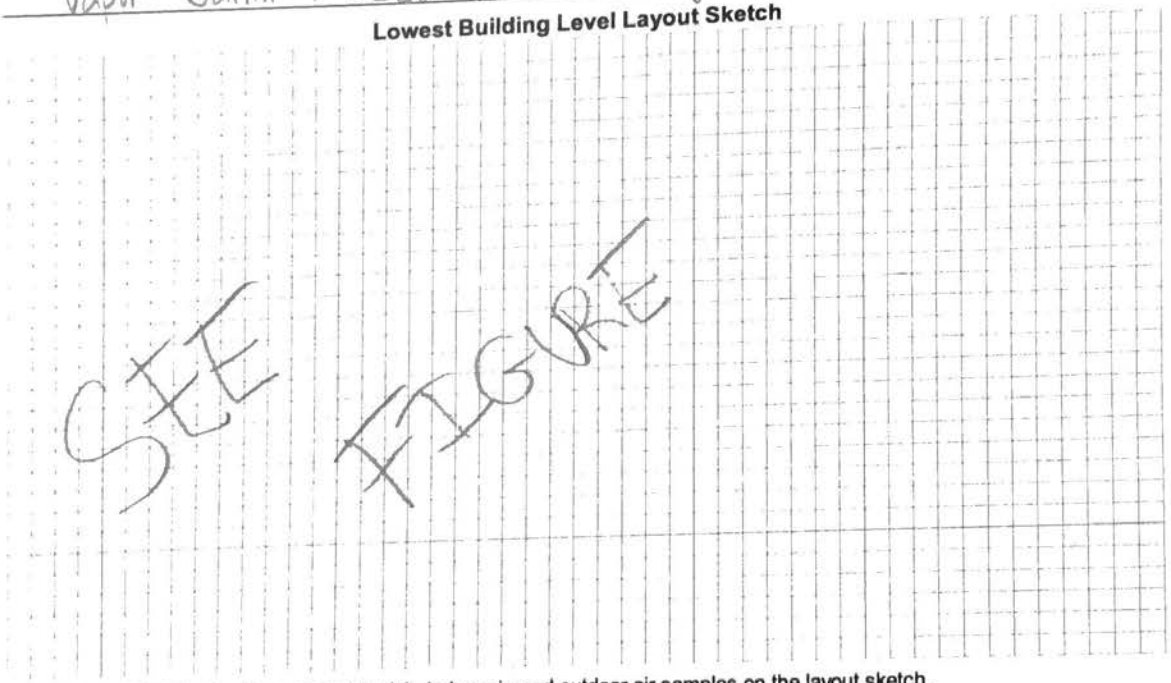
Last time **Dry Cleaned** fabrics brought in ? N/A What / Where ? _____

Do any building occupants use solvents at work ? ☒ Yes ☐ No Describe : Paint thinner during new painting

Any testing for Radon ? ☐ Yes ☒ No Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☒ Yes ☐ No If yes, describe below
Vapor barrier / SSDS within building

Lowest Building Level Layout Sketch



- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	#######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

VP-2 - office no Chemical Storage. New furniture (desk & Chairs) 0.0 ppm
- new carpet (panels) finished ceiling, forced air/heat

VP-8 - Electrical room (2B G01) Concrete Slab floor in good condition, forced air heat/cool) "Mr. Green" cleaner/degreaser observed 8 buckets of Benjamin Moore Latex paint 0.0 ppm

VP-9 Battery Room Hub - Vacant room, insulated room w/ forced air/heat 0.0 ppm
1 bucket of Moisture primer zero VOCs

VP-5 1 floor drain present ~ 15' from VP.* Floor polishing activities during inspection* 3x buckets of Hi-tech polishing material, 3x yellow buckets for joint polishing material building under construction. Forced air heater fans 0.0 ppm

VP-4 Concrete slab (good condition)
1 Hilti joint spray bucket, 2x wire pulling lubricant 0.0 ppm

VP-3 Blade room Floor drains, concrete slab (good condition) 0.0 ppm

VP-7 Electrical room - concrete Slab (good condition) exposed ceiling 0.0 ppm

VP-6 Electrical Condensation drain, Concrete Slab (good condition) 0.0 ppm

VP-1 Vacant room Concrete Slab (good Condition

VI-3 SV Sampling - ~~floor~~ painting in progress adjacent to SV Sample (ppm 1001)
- 11.20 12/5/19

Soil Vapor Intrusion - Structure Sampling Building Questionnaire **Structure ID :** VVRC

Site No. : _____ **Site Name :** Visitors Center (VVRC)

Date: 12/3/19 **Time:** 9:00

Structure Address : _____

Preparer's Name & Affiliation : Matthew Del Balzo (GZA)

Residential ? ☐ Yes ☑ No **Owner Occupied ?** ☐ Yes ☑ No **Owner Interviewed ?** ☐ Yes ☑ No

Commercial ? ☒ Yes ☐ No **Industrial ?** ☐ Yes ☑ No **Mixed Uses ?** ☐ Yes ☐ No

Identify all non-residential use(s) : Visitors building, Security Scan Center for visitor Vehicles

Owner Name : JP Morgan Chase, LLC **Owner Phone :** ( ) _____ - _____

Secondary Owner Phone : ( ) _____ - _____

Owner Address (if different) : _____

Occupant Name : _____ **Occupant Phone :** ( ) _____ - _____

Secondary Occupant Phone : ( ) _____ - _____

Number & Age of All Persons Residing at this Location : Non-active - Under construction

Additional Owner/Occupant Information : " "

Describe Structure (style, number floors, size) : One-story, slab-on-grade building with Bay garage doors, offices, kitchen, conference room

Approximate **Year Built :** 2018 **Is the building Insulated?** ☒ Yes ☐ No

Lowest level : ☒ Slab-on-grade ☐ Basement ☐ Crawlspace

Describe Lowest Level (finishing, use, time spent in space) : One-story building, normal operations are expected to be 8-hour days

Floor Type: ☒ Concrete Slab ☐ Dirt ☐ Mixed : _____

Floor Condition : ☒ Good (few or no cracks) ☐ Average (some cracks) ☐ Poor (broken concrete or dirt)

Sumps/Drains? ☒ Yes ☐ No Describe : Floor drain located in room of VP-10

Identify other floor penetrations & details : No other floor penetrations observed other than floor drain in room.

Wall Construction : ☒ Concrete Block ☐ Poured Concrete ☐ Laid-Up Stone

Identify any wall penetrations : No wall penetrations observed in VP-10 location

Identify water, moisture, or seepage: location & severity (sump, cracks, stains, etc) : _____

No water or staining observed

Heating Fuel : ☐ Oil ☐ Gas ☐ Wood ☒ Electric ☐ Other : _____

Heating System : ☒ Forced Air ☐ Hot Water ☐ Other : _____

Hot Water System : ☐ Combustion ☒ Electric ☐ Boilermate ☐ Other: _____

Clothes Dryer : ☐ Electric ☐ Gas Where is dryer **vented** to? N/A

If combustion occurs, describe where air is drawn from (cold air return, basement, external air, etc.) : _____

Small electric heater

Fans & Vents (identify where fans/vents pull air from and where they vent/exhaust to) : _____

Small heater fan located in room - no vent/exhaust

Soil Vapor Intrusion - Structure Sampling Building Questionnaire

Structure ID : VRC___

Structure ID : _____

Describe factors that may affect indoor air quality (chemical use/storage, unvented heaters, smoking, workshop):

Chemical use/storage, workshop outside of room where VP-10 located (whole inspection area)

Attached garage ? ☒ Yes ☐ No

Air fresheners ? ☐ Yes ☒ No

New carpet or furniture ? ☒ Yes ☐ No

What/Where ? Carpet mats located in room / not yet installed. New furniture in adjacent rooms

Recent **painting** or **staining** ? ☒ Yes ☐ No

Where ? : Surrounding walls, Epoxy used several weeks before inspection

Any **solvent** or **chemical-like** odors ? ☐ Yes ☐ No

Describe : Paint-like odor PID 0.3 ppm

Last time **Dry Cleaned** fabrics brought in ? N/A

What / Where ? _____

✳ Do any building occupants use solvents at work ? ☐ Yes ☒ No

Describe : building currently under construction

Any testing for Radon ? ☐ Yes ☒ No

Results : _____

Radon System/Soil Vapor Intrusion Mitigation System present ? ☒ Yes ☐ No

If yes, describe below

Soil vapor barrier installed beneath SOG slab

Lowest Building Level Layout Sketch

✳ See figure ✳

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or **F**	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	######	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab vapor samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.

Structure Sampling - Product Inventory

Page _____ of _____

Homeowner Name & Address: VVRC 140 Old Orangeburg Road

Samplers & Company: M. Del Balzo, R. Eustice (GZA) **Date:** 12/3/19

Site Number & Name: **Structure ID:** VVRC

Make & Model of PID: MiniRae 3000 10.6 eV **Phone Number:**

Identify any Changes from Original Building Questionnaire : **Date of PID Calibration:** 12/3/19

Product Name/Description	Quantity	Chemical Ingredients	PID Reading	Location
Benjamin Moore Paint/primer (latex) - White	5	Latex Paint / primer	0.0	Garage
Benjamin Moore industrial enamel (blue)	1	* See photo *	0.1 (lid closed)	Garage
ADH-60 Rigid wall covering adhesive	1	not labeled	0.0	Garage
			0.1	Garage
Sherwin Williams mineral spirits	1	* See photo *	0.1	Garage
Hilti Joint spray Compound	5	* See photo *	0.1	Garage
Tremco TremPro 651 Butyl Rubber Sealant	1	* See photo	NM - Closed	VP-10 (Kitchen)
Chapco Cove Base Adhesive	2	Clay, water, resin polymer, urea plasticizer	NM - Closed	VP-10 (Kitchen)
Benjamin Moore Latex Paint	3	* See photo *	0.0	VP-10

APPENDIX Q

ENVIRONMENTAL EASEMENT

Donna Gorman Silberman, Act Cnty Clk
1 South Main St., Ste. 100
New City, NY 10956
(845) 638-5070

Rockland County Clerk Recording Cover Sheet

Received From :
FIDELITY NATIONAL TITLE
485 LEXINGTON AVE.
18TH FL.
NY, NY 10017

Return To :
FIDELITY NATIONAL TITLE
485 LEXINGTON AVE.
18TH FL.
NY, NY 10017

Method Returned : ERECORDING

First GRANTOR
JPMORGAN CHASE BANK NA

First GRANTEE
NYSDEC

Index Type : Land Records
Instr Number : 2020-00023348
Book : **Page :**

Type of Instrument : Easement
Type of Transaction : Ease, R-Way, Asmt Rent-Lease
Recording Fee: $101.00
Recording Pages : 11

The Property affected by this instrument is situated in Orangetown, in the County of Rockland, New York

Real Estate Transfer Tax	
RETT # :	313
Deed Amount :	$0.00
RETT Amount :	$0.00
Total Fees :	$101.00

State of New York
County of Rockland

I hereby certify that the within and foregoing was recorded in the Clerk's office for Rockland County, New York

On (Recorded Date) : 08/19/2020
At (Recorded Time) : 8:39:00 AM

Donna Gorman Silberman
Act Cnty Clk

This sheet constitutes the Clerks endorsement required by Section 319 of Real Property Law of the State of New York

Entered By: NYROCKLANDUSER17 Printed On : 08/19/2020 At : 8:39:27AM

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 4th day of August, 2020 between Owner, JPMorgan Chase Bank, National Association, having an office at 237 Park Avenue, 12th Floor, New York, New York 10017, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 140 Old Orangeburg Road in the Town of Orangetown, County of Rockland and State of New York, known and designated on the tax map of the County Clerk of Rockland as tax map parcel numbers: Section 73.08 Block 1 Lot 1, being the same as that property conveyed to Grantor by deed dated October 18, 2017 and recorded in the Rockland County Clerk's Office in Instrument No. 2017-00033778. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 60.961 +/- acres, and is hereinafter more fully described in the Land Title Survey dated March 17, 2020 and last revised June 23, 2020 prepared by Keith M. Ludwig, P.L.S. of Pennoni Engineering and Surveying of New York, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C344080-07-17, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land. are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Rockland County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be

incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common

law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C344080
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

JPMorgan Chase Bank, National Association:

By: _____

Print Name: William G. Lee

Title: Executive Director Date: 7/23/2020

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Westchester)

On the 23rd day of July, in the year 2020, before me, the undersigned, personally appeared William G. Lee, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (~~are~~) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(~~ies~~), and that by his/her/their signature(~~s~~) on the instrument, the individual(~~s~~), or the person upon behalf of which the individual(~~s~~) acted, executed the instrument.

Karen M. Battista
Notary Public - State of New York

KAREN M BATTISTA
Notary Public - State of New York
NO. 01BA6029060
Qualified in Westchester County
My Commission Expires Dec 11, 2021

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Michael J. Ryan, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 5th day of August, in the year 2020, before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

COLLEEN A. McCARTHY
Notary Public, State of New York
Qualified in Albany County
No. 02MC5046480
Commission Expires July 17, 2021

SCHEDULE "A" PROPERTY DESCRIPTION

LEGAL DESCRIPTION AND ENVIRONMENTAL EASEMENT DESCRIPTION OF PROPERTY OWNED BY JPMORGAN CHASE BANK, NATIONAL ASSOCIATION ON CONVENT ROAD IN THE TOWN OF ORANGETOWN, NY

ALL THAT CERTAIN tract or parcel of land located on Convent Road (AKA County Route 26), 50' wide Right of Way, situate in the Town of Orangetown, the County of Rockland, and State of New York, bounded and described as follows:

COMMENCING at a point in the Southerly Right-of-Way line of Convent Road (50' wide Right-of-Way), where the same is intersected by the Easterly line of Block 1 Lot 3 and from said beginning point and in the same bearing system running; thence, coincident with the aforesaid Southerly line of Convent Road,

1. Along a bearing of North 88 Degrees 49 Minutes 54 Seconds East a distance of 330.80 feet to a point;

2. Thence along a bearing of South 89 Degrees 44 Minutes 51 Seconds East a distance of 598.89 feet to a point;

3. Thence along a bearing of South 02 Degrees 06 Minutes 23 Seconds East a distance of 1115.47 feet to a point;

4. Thence along a bearing of South 00 Degrees 31 Minutes 53 Seconds East a distance of 320.70 feet to a point;

5. Thence along a bearing of South 89 Degrees 28 Minutes 07 Seconds West a distance of 99.13 feet to a point;

6. Thence along a non-tangential curve to the left with a radius of 40.35 feet, Southerly, an arc length of 51.83 feet, (said curve having a chord bearing and distance of South 37 Degrees 19 Minutes 40 Seconds East, 48.34 feet) to a point;

7. Thence along a reverse curve to the right with a radius of 45.00 feet, Southerly, an arc length of 48.76 feet, (said curve having a chord bearing and distance of South 43 Degrees 05 Minutes 04 Seconds East, 46.41 feet) to a point;

8. Thence along a compound curve to the right with a radius of 220.61 feet, Southerly, an arc length of 107.16 feet, (said curve having a chord bearing and distance of South 01 Degrees 52 Minutes 24 Seconds West, 106.11 feet) to a point;

9. Thence along a bearing of South 15 Degrees 47 Minutes 20 Seconds West a distance of 167.48 feet to a point

10. Thence along a curve to the left with a radius of 441.01 feet, Southerly, an arc length of 166.13 feet, (said curve having a chord bearing and distance of South 04 Degrees 59 Minutes 42 Seconds West, 165.15 feet) to a point;

11. Thence along a bearing of North 88 Degrees 55 Minutes 30 Seconds West a distance of 91.94 feet to a point;

12. Thence along a bearing of South 00 Degrees 29 Minutes 33 Seconds East a distance of 390.06 feet to a point;

13. Thence along a bearing of South 89 Degrees 34 Minutes 53 Seconds West a distance of 733.72 feet to a point;

14. Thence along a bearing of North 01 Degrees 21 Minutes 50 Seconds West a distance of 30.82 feet to a point;

15. Thence along a bearing of North 77 Degrees 11 Minutes 05 Seconds West a distance of 81.21 feet to a point;

16. Thence along a bearing of North 89 Degrees 58 Minutes 48 Seconds West a distance of 173.11 feet to a point;

17. Thence along a bearing of North 18 Degrees 51 Minutes 35 Seconds West a distance of 162.68 feet to a point;

18. Thence along a bearing of South 76 Degrees 33 Minutes 00 Seconds West a distance of 24.31 feet to a point;

19. Thence along a bearing of North 00 Degrees 32 Minutes 43 Seconds West a distance of 425.04 feet to a point;

20. Thence along a curve to the right with a radius of 1055.63 feet, Northerly, an arc length of 117.91 feet, (said curve having a chord bearing and distance of North 02 Degrees 39 Minutes 17 Seconds East, 117.85 feet) to a point;

21. Thence along a compound curve to the right with a radius of 168.00 feet, Northerly, an arc length of 78.76 feet, (said curve having a chord bearing and distance of North 19 Degrees 17 Minutes 06 Seconds East, 78.04 feet) to a point;

22. Thence along a reverse curve to the left with a radius of 101.52 feet, Northerly, an arc length of 58.81 feet, (said curve having a chord bearing and distance of North 16 Degrees 07 Minutes 08 Seconds East, 57.99 feet) to a point;

23. Thence along a bearing of North 00 Degrees 28 Minutes 38 Seconds West a distance of 1259.56 feet to a point;

24. Thence along a bearing of North 89 Degrees 31 Minutes 22 Seconds East a distance of 248.34 feet to a point;

25. Thence along a bearing of North 00 Degrees 28 Minutes 38 Seconds West a distance of 199.09 feet to the Point and Place of BEGINNING

Said above described tract or parcel of land, containing within said described bounds 2,655,443+/- square feet, 60.961+/- acres of land (more or less).

TP-584 (9/19)

Department of Taxation and Finance

Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the Payment of Estimated Personal Income Tax

Recording office time stamp
FILED
8/19/2020
ROCKLAND COUNTY
CLERK'S OFFICE
2020-00023348

See Form TP-584-I, Instructions for Form TP-584, *before completing this form. Print or type.*

Schedule A – Information relating to conveyance

Grantor/Transferor ☐ Individual ☐ Corporation ☐ Partnership ☐ Estate/Trust ☐ Single member LLC ☐ Multi-member LLC ☒ Other	Name *(if individual, last, first, middle initial)* (☐ *mark an X if more than one grantor*) JPMorgan Chase Bank, National Association			Social Security number (SSN)
	Mailing address 237 Park Ave., 12th Floor			SSN
	City New York	State NY	ZIP code 10017	Employer Identification Number (EIN) 13-4994650
	Single member's name if grantor is a single member LLC *(see instructions)*			Single member EIN or SSN
Grantee/Transferee ☐ Individual ☐ Corporation ☐ Partnership ☐ Estate/Trust ☐ Single member LLC ☐ Multi-member LLC ☒ Other	Name *(if individual, last, first, middle initial)* (☐ *mark an X if more than one grantee*) People of the State of New York through NYSDEC			SSN
	Mailing address 625 Broadway			SSN
	City Albany	State NY	ZIP code 12233	EIN 14-6013200
	Single member's name if grantee is a single member LLC *(see instructions)*			Single member EIN or SSN

Location and description of property conveyed

Tax map designation – Section, block & lot *(include dots and dashes)*	SWIS code (six digits)	Street address	City, town, or village	County
73.08-1.1	392489	CONVENT ROAD	ORANGETOWN	ROCKLAND

Type of property conveyed *(mark an X in applicable box)*

1 ☐ One- to three-family house
2 ☐ Residential cooperative
3 ☐ Residential condominium
4 ☐ Vacant land
5 ☒ Commercial/industrial
6 ☐ Apartment building
7 ☐ Office building
8 ☐ Four-family dwelling
9 ☐ Other _____

Date of conveyance: 8 (month) 4 (day) 2020 (year)

Percentage of real property conveyed which is residential real property 0 % *(see instructions)*

Condition of conveyance *(mark an X in all that apply)*

a. ☐ Conveyance of fee interest
b. ☐ Acquisition of a controlling interest (state percentage acquired _____ %)
c. ☐ Transfer of a controlling interest (state percentage transferred _____ %)
d. ☐ Conveyance to cooperative housing corporation
e. ☐ Conveyance pursuant to or in lieu of foreclosure or enforcement of security interest *(attach Form TP-584.1, Schedule E)*
f. ☐ Conveyance which consists of a mere change of identity or form of ownership or organization *(attach Form TP-584.1, Schedule F)*
g. ☐ Conveyance for which credit for tax previously paid will be claimed *(attach Form TP-584.1, Schedule G)*
h. ☐ Conveyance of cooperative apartment(s)
i. ☐ Syndication
j. ☐ Conveyance of air rights or development rights
k. ☐ Contract assignment
l. ☐ Option assignment or surrender
m. ☐ Leasehold assignment or surrender
n. ☐ Leasehold grant
o. ☒ Conveyance of an easement
p. ☐ Conveyance for which exemption from transfer tax claimed *(complete Schedule B, Part 3)*
q. ☐ Conveyance of property partly within and partly outside the state
r. ☐ Conveyance pursuant to divorce or separation
s. ☒ Other *(describe)* env. easement

For recording officer's use	Amount received	Date received	Transaction number
	Schedule B, Part 1 $ _____	8/19/2020	RS#313
	Schedule B, Part 2 $		

Schedule B – Real estate transfer tax return (Tax Law Article 31)

Part 1 – Computation of tax due

1	Enter amount of consideration for the conveyance *(if you are claiming a total exemption from tax, mark an X in the Exemption claimed box, enter consideration and proceed to Part 3)* ☒ **Exemption claimed**	1.	0 00
2	Continuing lien deduction *(see instructions if property is taken subject to mortgage or lien)*	2.	0 00
3	Taxable consideration *(subtract line 2 from line 1)*	3.	0 00
4	Tax: $2 for each $500, or fractional part thereof, of consideration on line 3	4.	0 00
5	Amount of credit claimed for tax previously paid *(see instructions and attach Form TP-584.1, Schedule G)*	5.	0 00
6	Total tax due* *(subtract line 5 from line 4)*	6.	0 00

Part 2 – Computation of additional tax due on the conveyance of residential real property for $1 million or more

1	Enter amount of consideration for conveyance *(from Part 1, line 1)*	1.	
2	Taxable consideration *(multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A)*	2.	
3	Total additional transfer tax due* *(multiply line 2 by 1% (.01))*	3.	

Part 3 – Explanation of exemption claimed on Part 1, line 1 *(mark an X in all boxes that apply)*

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

a. Conveyance is to the United Nations, the United States of America, New York State, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) ..... a ☒

b. Conveyance is to secure a debt or other obligation ..... b ☐

c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance ..... c ☐

d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts ..... d ☐

e. Conveyance is given in connection with a tax sale ..... e ☐

f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F ..... f ☐

g. Conveyance consists of deed of partition ..... g ☐

h. Conveyance is given pursuant to the federal Bankruptcy Act ..... h ☐

i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property ..... i ☐

j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than $200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment ..... j ☐

k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, § 1401(e) *(attach documents supporting such claim)* ..... k ☐

* The total tax (from Part 1, line 6 and Part 2, line 3 above) is due within 15 days from the date of conveyance. Make check(s) payable to the county clerk where the recording is to take place. For conveyances of real property within New York City, use Form TP-584-NYC. If a recording is not required, send this return and your check(s) made payable to the ***NYS Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, *Designated Private Delivery Services.*

Schedule C – Credit Line Mortgage Certificate (Tax Law Article 11)

Complete the following only if the interest being transferred is a fee simple interest.
This is to certify that: *(mark an **X** in the appropriate box)*

1. ☐ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:

   a ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.

   b ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).

   c ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.

   d ☐ The maximum principal amount secured by the credit line mortgage is $3 million or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

   Note: for purposes of determining whether the maximum principal amount secured is $3 million or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.

   e ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:

   a ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.

   b ☐ A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded.)*

Signature (both the grantors and grantees must sign)

The undersigned certify that the above information contained in Schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of their knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
	Exec. Director		Sr. Atty
Grantor signature	Title	Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you marked *e*, *f*, or *g* in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place? If no recording is required, send this return and your check(s), made payable to the ***NYS Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, *Designated Private Delivery Services*.

Schedule D – Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, § 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

If the property is being conveyed by a referee pursuant to a foreclosure proceeding, proceed to Part 2, mark an *X* in the second box under *Exemption for nonresident transferors/sellers*, and sign at bottom.

Part 1 – New York State residents

If you are a New York State resident transferor/seller listed in Form TP-584, Schedule A (or an attachment to Form TP-584), you must sign the certification below. If one or more transferor/seller of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law § 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law § 685(c), but not as a condition of recording a deed.

Part 2 – Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Form TP-584, Schedule A (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law § 663(c), mark an *X* in the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor/seller, that transferor/seller is not required to pay estimated personal income tax to New York State under Tax Law § 663. **Each** nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form.* For more information, see *Payment of estimated personal income tax,* on Form TP-584-I, page 1.

Exemption for nonresident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law § 663 due to one of the following exemptions:

☐ The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ (Date) to _____ (Date) *(see instructions)*.

☐ The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.

☐ The transferor or transferee is an agency or authority of the United States of America, an agency or authority of New York State, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Office of the General Counsel
625 Broadway, 14th Floor, Albany, New York 12233-1500
P: (518) 402-9185 | F: (518) 402-9018
www.dec.ny.gov

August 4, 2020

SENT VIA USPS Delivery Confirmation
AND ELECTRONIC MAIL to cbmobley@bclplaw.com

Adam Schwartz
Fidelity National Title Insurance Company
485 Lexington Avenue, 18th Floor
New York, NY 10017

RE: Environmental Easement Package Site
Name: RCP-Core Area
Location: 140 Old Orangeburg Road
Site No.: C344080

Dear,

Enclosed, please find the fully executed Environmental Easement, the TP-584 tax form referencing the above site.

Once the Environmental Easement is recorded, the local municipality will need to be notified via Certified Mail, Return Receipt Requested.

Please return copies of the recorded easement marked by the County Clerk's Office with the date and location of recording, and a certified copy of the municipal notices to our address above. The information from the recorded easement and notices are necessary to process the Certificate of Completion.

If you have any further questions or concerns relating to this matter, please contact our office at (518) 408-0409.

Sincerely,

Dale L. Thiel
Legal Assistant
Remediation
Bureau

ec: B. Burns, Esq., NYSDEC

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 4th day of August, 2020 between Owner, JPMorgan Chase Bank, National Association, having an office at 237 Park Avenue, 12th Floor, New York, New York 10017, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 140 Old Orangeburg Road in the Town of Orangetown, County of Rockland and State of New York, known and designated on the tax map of the County Clerk of Rockland as tax map parcel numbers: Section 73.08 Block 1 Lot 1, being the same as that property conveyed to Grantor by deed dated October 18, 2017 and recorded in the Rockland County Clerk's Office in Instrument No. 2017-00033778. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 60.961 +/- acres, and is hereinafter more fully described in the Land Title Survey dated March 17, 2020 and last revised June 23, 2020 prepared by Keith M. Ludwig, P.L.S. of Pennoni Engineering and Surveying of New York, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C344080-07-17, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Rockland County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be

incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common

law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C344080
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

11. Consistency with the SMP. To the extent there is any conflict or inconsistency between the terms of this Environmental Easement and the SMP, regarding matters specifically addressed by the SMP, the terms of the SMP will control.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

JPMorgan Chase Bank, National Association:

By: _____

Print Name: William G. Lee

Title: ~~Executive Director~~ Date: 7/23/2020

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Westchester)

On the 23rd day of July, in the year 2020, before me, the undersigned, personally appeared William G. Lee, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(~~s~~) whose name is (~~are~~) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(~~ies~~), and that by his/her/their signature(~~s~~) on the instrument, the individual(~~s~~), or the person upon behalf of which the individual(~~s~~) acted, executed the instrument.

Karen M. Battista
Notary Public - State of New York

KAREN M BATTISTA
Notary Public - State of New York
NO. 01BA6029060
Qualified in Westchester County
My Commission Expires Dec 11, 2021

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Michael J. Ryan, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 5th day of August, in the year 2020, before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

COLLEEN A. McCARTHY
Notary Public, State of New York
Qualified in Albany County
No. 02MC5046480
Commission Expires July 17, 2021

SCHEDULE "A" PROPERTY DESCRIPTION

LEGAL DESCRIPTION AND ENVIRONMENTAL EASEMENT DESCRIPTION OF PROPERTY OWNED BY JPMORGAN CHASE BANK, NATIONAL ASSOCIATION ON CONVENT ROAD IN THE TOWN OF ORANGETOWN, NY

ALL THAT CERTAIN tract or parcel of land located on Convent Road (AKA County Route 26), 50' wide Right of Way, situate in the Town of Orangetown, the County of Rockland, and State of New York, bounded and described as follows:

COMMENCING at a point in the Southerly Right-of-Way line of Convent Road (50' wide Right-of-Way), where the same is intersected by the Easterly line of Block 1 Lot 3 and from said beginning point and in the same bearing system running; thence, coincident with the aforesaid Southerly line of Convent Road,

1. Along a bearing of North 88 Degrees 49 Minutes 54 Seconds East a distance of 330.80 feet to a point;

2. Thence along a bearing of South 89 Degrees 44 Minutes 51 Seconds East a distance of 598.89 feet to a point;

3. Thence along a bearing of South 02 Degrees 06 Minutes 23 Seconds East a distance of 1115.47 feet to a point;

4. Thence along a bearing of South 00 Degrees 31 Minutes 53 Seconds East a distance of 320.70 feet to a point;

5. Thence along a bearing of South 89 Degrees 28 Minutes 07 Seconds West a distance of 99.13 feet to a point;

6. Thence along a non-tangential curve to the left with a radius of 40.35 feet, Southerly, an arc length of 51.83 feet, (said curve having a chord bearing and distance of South 37 Degrees 19 Minutes 40 Seconds East, 48.34 feet) to a point;

7. Thence along a reverse curve to the right with a radius of 45.00 feet, Southerly, an arc length of 48.76 feet, (said curve having a chord bearing and distance of South 43 Degrees 05 Minutes 04 Seconds East, 46.41 feet) to a point;

8. Thence along a compound curve to the right with a radius of 220.61 feet, Southerly, an arc length of 107.16 feet, (said curve having a chord bearing and distance of South 01 Degrees 52 Minutes 24 Seconds West, 106.11 feet) to a point;

9. Thence along a bearing of South 15 Degrees 47 Minutes 20 Seconds West a distance of 167.48 feet to a point

10. Thence along a curve to the left with a radius of 441.01 feet, Southerly, an arc length of 166.13 feet, (said curve having a chord bearing and distance of South 04 Degrees 59 Minutes 42 Seconds West, 165.15 feet) to a point;

11. Thence along a bearing of North 88 Degrees 55 Minutes 30 Seconds West a distance of 91.94 feet to a point;

12. Thence along a bearing of South 00 Degrees 29 Minutes 33 Seconds East a distance of 390.06 feet to a point;

13. Thence along a bearing of South 89 Degrees 34 Minutes 53 Seconds West a distance of 733.72 feet to a point;

14. Thence along a bearing of North 01 Degrees 21 Minutes 50 Seconds West a distance of 30.82 feet to a point;

15. Thence along a bearing of North 77 Degrees 11 Minutes 05 Seconds West a distance of 81.21 feet to a point;

16. Thence along a bearing of North 89 Degrees 58 Minutes 48 Seconds West a distance of 173.11 feet to a point;

17. Thence along a bearing of North 18 Degrees 51 Minutes 35 Seconds West a distance of 162.68 feet to a point;

18. Thence along a bearing of South 76 Degrees 33 Minutes 00 Seconds West a distance of 24.31 feet to a point;

19. Thence along a bearing of North 00 Degrees 32 Minutes 43 Seconds West a distance of 425.04 feet to a point;

20. Thence along a curve to the right with a radius of 1055.63 feet, Northerly, an arc length of 117.91 feet, (said curve having a chord bearing and distance of North 02 Degrees 39 Minutes 17 Seconds East, 117.85 feet) to a point;

21. Thence along a compound curve to the right with a radius of 168.00 feet, Northerly, an arc length of 78.76 feet, (said curve having a chord bearing and distance of North 19 Degrees 17 Minutes 06 Seconds East, 78.04 feet) to a point;

22. Thence along a reverse curve to the left with a radius of 101.52 feet, Northerly, an arc length of 58.81 feet, (said curve having a chord bearing and distance of North 16 Degrees 07 Minutes 08 Seconds East, 57.99 feet) to a point;

23. Thence along a bearing of North 00 Degrees 28 Minutes 38 Seconds West a distance of 1259.56 feet to a point;

24. Thence along a bearing of North 89 Degrees 31 Minutes 22 Seconds East a distance of 248.34 feet to a point;

25. Thence along a bearing of North 00 Degrees 28 Minutes 38 Seconds West a distance of 199.09 feet to the Point and Place of BEGINNING

Said above described tract or parcel of land, containing within said described bounds 2,655,443+/- square feet, 60.961+/- acres of land (more or less).

PROPERTY AND ENVIRONMENTAL EASEMENT LEGAL DESCRIPTION

ALL THAT CERTAIN TRACT OR PARCEL OF LAND LOCATED ON CONVENT ROAD (AKA COUNTY ROUTE 26), 50' WIDE RIGHT OF WAY, SITUATE IN THE TOWN OF ORANGETOWN, THE COUNTY OF ROCKLAND, AND STATE OF NEW YORK, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE SOUTHERLY RIGHT-OF-WAY LINE OF CONVENT ROAD (50' WIDE RIGHT-OF-WAY), WHERE THE SAME IS INTERSECTED BY THE EASTERLY LINE OF BLOCK 1 LOT 3 AND FROM SAID BEGINNING POINT AND IN THE SAME BEARING SYSTEM RUNNING; THENCE, COINCIDENT WITH THE AFORESAID SOUTHERLY LINE OF CONVENT ROAD,

1. ALONG A BEARING OF NORTH 88 DEGREES 49 MINUTES 54 SECONDS EAST A DISTANCE OF 330.80 FEET TO A POINT;
2. THENCE ALONG A BEARING OF SOUTH 89 DEGREES 44 MINUTES 51 SECONDS EAST A DISTANCE OF 598.89 FEET TO A POINT;
3. THENCE ALONG A BEARING OF SOUTH 02 DEGREES 06 MINUTES 23 SECONDS EAST A DISTANCE OF 1115.47 FEET TO A POINT;
4. THENCE ALONG A BEARING OF SOUTH 00 DEGREES 31 MINUTES 53 SECONDS EAST A DISTANCE OF 320.70 FEET TO A POINT;
5. THENCE ALONG A BEARING OF SOUTH 89 DEGREES 28 MINUTES 07 SECONDS WEST A DISTANCE OF 99.13 FEET TO A POINT;
6. THENCE ALONG A NON-TANGENTIAL CURVE TO THE LEFT WITH A RADIUS OF 40.35 FEET, SOUTHERLY, AN ARC LENGTH OF 51.83 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 37 DEGREES 19 MINUTES 40 SECONDS EAST, 48.34 FEET) TO A POINT;
7. THENCE ALONG A REVERSE CURVE TO THE RIGHT WITH A RADIUS OF 45.00 FEET, SOUTHERLY, AN ARC LENGTH OF 49.76 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 43 DEGREES 05 MINUTES 04 SECONDS EAST, 46.41 FEET) TO A POINT;
8. THENCE ALONG A COMPOUND CURVE TO THE RIGHT WITH A RADIUS OF 220.61 FEET, SOUTHERLY, AN AHC LENGTH OF 107.16 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 01 DEGREES 52 MINUTES 24 SECONDS WEST, 106.11 FEET) TO A POINT;
9. THENCE ALONG A BEARING OF SOUTH 15 DEGREES 47 MINUTES 20 SECONDS WEST A DISTANCE OF 167.48 FEET TO A POINT;
10. THENCE ALONG A CURVE TO THE LEFT WITH A RADIUS OF 441.01 FEET, SOUTHERLY, AN ARC LENGTH OF 166.13 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 04 DEGREES 59 MINUTES 42 SECONDS WEST, 165.15 FEET) TO A POINT;
11. THENCE ALONG A BEARING OF NORTH 88 DEGREES 55 MINUTES 30 SECONDS WEST A DISTANCE OF 91.94 FEET TO A POINT;
12. THENCE ALONG A BEARING OF SOUTH 00 DEGREES 29 MINUTES 33 SECONDS EAST A DISTANCE OF 390.06 FEET TO A POINT;
13. THENCE ALONG A BEARING OF SOUTH 89 DEGREES 34 MINUTES 53 SECONDS WEST A DISTANCE OF 733.72 FEET TO A POINT;
14. THENCE ALONG A BEARING OF NORTH 01 DEGREES 21 MINUTES 50 SECONDS WEST A DISTANCE OF 30.82 FEET TO A POINT;
15. THENCE ALONG A BEARING OF NORTH 77 DEGREES 11 MINUTES 05 SECONDS WEST A DISTANCE OF 81.21 FEET TO A POINT;
16. THENCE ALONG A BEARING OF NORTH 89 DEGREES 58 MINUTES 48 SECONDS WEST A DISTANCE OF 173.11 FEET TO A POINT;
17. THENCE ALONG A BEARING OF NORTH 18 DEGREES 51 MINUTES 35 SECONDS WEST A DISTANCE OF 162.68 FEET TO A POINT;
18. THENCE ALONG A BEARING OF SOUTH 76 DEGREES 33 MINUTES 00 SECONDS WEST A DISTANCE OF 24.31 FEET TO A POINT;
19. THENCE ALONG A BEARING OF NORTH 00 DEGREES 32 MINUTES 43 SECONDS WEST A DISTANCE OF 425.04 FEET TO A POINT;
20. THENCE ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 1055.63 FEET, NORTHERLY, AN ARC LENGTH OF 117.91 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 02 DEGREES 39 MINUTES 17 SECONDS EAST, 117.85 FEET) TO A POINT;
21. THENCE ALONG A COMPOUND CURVE TO THE RIGHT WITH A RADIUS OF 168.00 FEET, NORTHERLY, AN ARC LENGTH OF 78.76 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 19 DEGREES 17 MINUTES 06 SECONDS EAST, 78.04 FEET) TO A POINT;
22. THENCE ALONG A REVERSE CURVE TO THE LEFT WITH A RADIUS OF 101.52 FEET, NORTHERLY, AN ARC LENGTH OF 58.81 FEET, (SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 16 DEGREES 07 MINUTES 08 SECONDS EAST, 57.99 FEET) TO A POINT;
23. THENCE ALONG A BEARING OF NORTH 00 DEGREES 28 MINUTES 38 SECONDS WEST A DISTANCE OF 1259.56 FEET TO A POINT;
24. THENCE ALONG A BEARING OF NORTH 89 DEGREES 31 MINUTES 22 SECONDS EAST A DISTANCE OF 248.34 FEET TO A POINT;
25. THENCE ALONG A BEARING OF NORTH 00 DEGREES 28 MINUTES 38 SECONDS WEST A DISTANCE OF 199.09 FEET TO THE POINT AND PLACE OF BEGINNING

SAID ABOVE DESCRIBED TRACT OR PARCEL OF LAND, CONTAINING WITHIN SAID DESCRIBED BOUNDS 2,655,443+/- SQUARE FEET, 60.961+/- ACRES OF LAND (MORE OR LESS).

THE ABOVE DESCRIPTION WAS WRITTEN PURSUANT TO A SURVEY OF PROPERTY DESIGNATED AS BLOCK 1, LOTS 1, 3 & 4 ON SHEET 73.08 OF ORANGETOWN, ROCKLAND COUNTY, NY. SAID SURVEY WAS PREPARED BY SPARTAN ENGINEERING - LAND SURVEYING PC AND IS MARKED AS PROJECT NUMBER 50089983.

OUTBOUND ARC TABLE

No.	RADIUS	ARC LENGTH	CHORD BRG.	CHORD LENGTH
C1.	R=40.35'	A=51.83'	CB=S 37°19'40" E	CD=48.34'
C2.	R=45.00'	A=49.76'	CB=S 43°05'04" E	CD=46.41'
C3.	R=220.61'	A=107.16'	CB=S 01°52'24" W	CD=106.11'
C4.	R=441.01'	A=166.13'	CB=S 04°59'42" W	CD=165.15'
C5.	R=1055.63'	A=117.91'	CB=N 02°39'17" E	CD=117.85'
C6.	R=168.00'	A=78.76'	CB=N 19°17'06" E	CD=78.04'
C7.	R=101.52'	A=58.81'	CB=N 16°07'08" E	CD=57.99'

OUTBOUND LINE TABLE

No.	BEARING	DISTANCE
L1	S 89°28'07" W	99.13'
L2	S 15°47'20" W	167.48'
L3	N 88°55'30" W	91.94'
L4	N 01°21'50" W	30.82'
L5	N 77°11'05" W	81.21'
L6	N 89°58'48" W	173.11'
L7	N 18°51'35" W	162.69'
L8	S 76°33'00" W	24.31'

ENVIRONMENTAL EASEMENT NOTES:

1. THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW. THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THE EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY NY 12233 OR AT DERWEB@DEC.NY.GOV.
2. THE ENTIRE PROPERTY AS SHOWN HEREON IS SUBJECT TO THE ENVIRONMENTAL EASEMENT.

LOCATION MAP
USGS QUAD MAP "NYACK" (2016)
SCALE = N.T.S.

40 20 0 20 40 80 80
(IN METERS)
SCALE: 1" = 20m

0 100 200 300
(IN FEET)
SCALE: 1" = 100'

NOTE: ELEVATIONS, IF SHOWN, ARE BASED ON THE NAVD '88

N.Y.S.P.C.S. (EAST) NAD-83 (2011)

LEGEND:

THESE STANDARD ABBREVIATIONS, ACRONYMS, HATCHES, LINETYPES AND SYMBOLS WILL BE FOUND IN THE DRAWING:

- RBCF o — REBAR WITH CAP FOUND
- PROPERTY LINE (PIQ)
- ADJACENT PROPERTY LINE - NOT SURVEYED
- FENCE (TYP.)
- LIMITS OF PERPETUAL EASEMENT GRANT AREAS
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE - STORM SEWER
- EXISTING EASEMENT LINE - UTILITY
- EXISTING EASEMENT LINE - MULTI-USE
- EXISTING EASEMENT LINE - WATER SERVICE
- PERPETUAL EASEMENT GRANT AREAS
- HARDSCAPE & OPEN AREAS
- OPEN WATER & DRAINAGE AREAS
- BUILDING

73.12 BLOCK 1 LOT 2.1 N/F STATE OF NEW YORK

25' WIDE STORMWATER DRAINAGE EASEMENT FROM NYSDOS TO JPMC

N 00°32'43" W 425.04'

L8 L7 L6 L5 L4 C5 C6 C7

FENCE (TYP.) RBCF (OMH) RBCF

EXISTING 40'-50' MULTI-USE EASEMENT #1 FROM JPMC TO NYSOMH SEE NOTE 1.2.B

BASIN AREA

73.12 BLOCK 1 LOT 3.1 N/F STATE OF NEW YORK

73.08 BLOCK 1 LOT 2 N/F STATE OF NEW YORK

N 00°28'38" W 1,259.56'

N/F 3RD AVENUE

EXISTING UTILITY EASEMENT No. 1

EXISTING TEMPORARY 20' WIDE UTILITY EASEMENT DURING SITE CONSTRUCTION FROM THE PEOPLE OF THE STATE OF NEW YORK TO JPMC 0.090± AC.

N 00°28'38" W 196.09'

N 89°31'22" E 248.34'

73.08 BLOCK 1 LOT 3 N/F STATE OF NEW YORK INSTR. ID NO. 2012-00013645

N 00°28'38" W 199.09'

N 88°49'54" E 248.36'

P.O.B. (RBCF) ENVIRONMENTAL EASEMENT (SEE ENVIRONMENTAL EASEMENT NOTES #2)

TAX MAP 73.08 BLOCK 1 LOT 1 N/F TOWN OF ORANGETOWN INSTR. ID NO. 2003-00003321

LOT AREA = 2,655,443 SQ.FT. OR 60.961 ACRES ±

WETLANDS DELINEATION AREA

N 88°49'54" E 330.80'

S 89°44'51" E 598.89'

CONVENT ROAD (COUNTY ROUTE No. 26) (50' WIDE R.O.W.)

TAX MAP 73.12 BLOCK 1 LOT 2.1 N/F STATE OF NEW YORK INSTR. ID NO. 2012-00013645

N/F OAK STREET (50' WIDE)

733.72'

P.O.B. (RBCF) VARIABLE WIDTH TRANSMISSION LINE EASEMENT

EXISTING 50' WIDE UTILITY EASEMENT FROM THE PEOPLE OF THE STATE OF NEW YORK TO JPMC WITH RIGHTS TO ORANGE & ROCKLAND UTILITIES, INC. 1.547± AC.

P.O.B. (RBCF) 60' WIDE TRANSMISSION LINE EASEMENT (PERPETUAL EASEMENT GRANT)

N/F 2ND AVENUE (50' WIDE)

IPF (IN WHITE OAK TREE ON CORNER)

S 89°34'53" W 303.46'

60' WIDE TRANSMISSION LINE EASEMENT AREA (PERPETUAL EASEMENT GRANT) AREA = 63,712 SQ.FT. OR 1.463 ACRES ±

SUBSTATION EASEMENT AREA (PERPETUAL EASEMENT GRANT) AREA = 98,217 SQ.FT. OR 2.255 ACRES ±

DATA CENTER BUILDING (UNDER CONSTRUCTION)

EXISTING 20' WIDE STORMWATER EASEMENT No.1 FROM JPMC TO NYSOMH. SEE NOTE 1.2.B.

EXISTING 40'-50' MULTI-USE EASEMENT No.1 FROM JPMC TO NYSOMH SEE NOTE 1.2.B

EXISTING 40'-50' MULTI-USE EASEMENT No.1 FROM JPMC TO NYSOMH SEE NOTE 1.2.B

EXISTING 20' WIDE STORMWATER DRAINAGE EASEMENT NO.2 FROM JPMC TO NYSOMH SEE NOTE 1.2.B

VVRC BUILDING

783.1'

P.O.B. SUBSTATION EASEMENT (PERPETUAL EASEMENT GRANT)

TIE DISTANCE S 89°28'07" W 235.16'

15' WIDE CONVENT COMMUNICATION LINE EASEMENT AREA (PERPETUAL EASEMENT GRANT) AREA = 22,946 SQ.FT. OR 0.527 ACRES ±

P.O.B. 15' WIDE CONVENT COMMUNICATION LINE EASEMENT (PERPETUAL EASEMENT GRANT)

EXISTING 20' WIDE STORMWATER DRAINAGE EASEMENT No.2 FROM JPMC TO NYSOMH SEE NOTE 1.2.B

N 89°49'54" E 53.37'

S 00°29'33" E 390.06'

AREA NOT INCLUDED

L3 L2 L1 C4 C3 C2 C1

N/F 1ST AVENUE

161.91'

S 00°31'53" E 320.70'

S 02°06'23" E 1,115.47'

EXISTING 20' WIDE WATERMAIN EASEMENT FROM JPMC TO SUEZ WATER-NY

73.08 BLOCK 1 LOT 4 N/F STATE OF NEW YORK INSTR. ID NO. 2012-00013645

73.12 BLOCK 1 LOT 2.1 N/F STATE OF NEW YORK

73.08 BLOCK 1 LOT 5 N/F STATE OF NEW YORK

74.05 BLOCK 1 LOT 1 N/F TOWN OF ORANGETOWN

GENERAL NOTES:

1. SITE AND BUILDING FEATURES AS SHOWN ARE BASED ON DESIGN INFORMATION AND CONSTRUCTION REDLINES, AND HAVE NOT BEEN FIELD VERIFIED.
2. SEE EASEMENT EXHIBITS FOR AN ADDITIONAL VARIABLE WIDTH TRANSMISSION LINE EASEMENT CONTINUING OFF-SITE ALONG 2ND AVENUE. (5 SHEETS TOTAL NOT INCLUDING THIS PLAN)

Dewberry
1051 BRIGGS ROAD
SUITE 210
MOUNT LAUREL, NJ 08054
PHONE: 856.802.0843
FAX: 856.802.0846

Pennoni
PENNONI ENGINEERING AND SURVEYING OF NEW YORK
130 West 29th Street, 5th Floor, Suite 5F
New York, NY 10001
T 212-239-7600 F 212-465-1730

ENVIRONMENTAL EASEMENT SURVEY OF PROPERTY

SECTION 73.08, BLOCK 1, LOT 1
140 OLD ORANGEBURG ROAD
ORANGEBURG, NY 10962
TOWN OF ORANGETOWN,
COUNTY OF ROCKLAND, NY

CERTIFIED TO:

1. JPMorgan Chase Bank, National Association, its successors and/or assigns, as their interest may appear
2. Fidelity National Title Insurance Company
3. New York State Department of Environmental Conservation
4. County of Rockland Industrial Development Agency, its successors and/or assigns, as their interest may appear

THIS IS TO CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION. FIELD WORK WAS COMPLETED ON 02/26/2019.

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

SEAL

STATE OF NEW YORK · KEITH M LUDWIG · 050603 · LICENSED LAND SURVEYOR

07/07/2020

KEITH M. LUDWIG
NY PROFESSIONAL LAND SURVEYOR
NO. - 050603

0 100 200 300
SCALE: 1"=100'

2.	06/23/20	PAC	PER NYSDEC REVIEW COMMENTS
1.	05/03/20	PAC	EASEMENT DEDICATION TEXT

REVISIONS

DRAWN BY	PAC
REVIEWED / QA BY	LWT / RWT
APPROVED BY	KML
DATE	03/17/2020

TITLE

ENVIRONMENTAL EASEMENT SURVEY

PREPARED FOR

TAX LOT SECTION 73.08, BLOCK 1, LOT 1
140 OLD ORANGEBURG ROAD
ORANGEBURG, NY 10962

TOWN OF ORANGETOWN, COUNTY OF ROCKLAND, STATE OF NEW YORK

PROJECT NO. 50107949

SHEET NO. 1 OF 1

APPENDIX R

GEOREFERENCED COMPLETION PHOTO LOG

FINAL COVER PHOTO LOG – NYSDEC Site Number: C344080

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
1	7/21/2020

DESCRIPTION
View of Contractor Trailer Complex. Cover consists of demarcation layer, 8-inches of clean fill, 4 inches of topsoil, black filter fabric and one foot of gravel.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
2	7/21/2020

DESCRIPTION
Northeast Entrance with Security Fence and Gate and asphalt pavement cover.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
3	7/21/2020

DESCRIPTION
Gravel access road to substation one-foot gravel over demarcation layer. Drainage swale and security berm consist of vegetated cover with clean fill and topsoil.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
4	7/21/2020

DESCRIPTION
Storm Drain and drainage swale with one foot of clean fill covered with rip rap for protection/stabilization.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
5	7/21/2020

DESCRIPTION
Asphalt paved ring road with clean-fill vegetated cover on berm.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
6	7/21/2020

DESCRIPTION
Convent Road Security Fence showing gravel security road. Gravel placed over one foot of clean fill cover.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
7	7/21/2020

DESCRIPTION
Area between Convent Road Security Fence and Convent Road Fence showing clean fill vegetated cover.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
8	7/21/2020

DESCRIPTION
View of northern wooded area with contractor trailer complex (gravel cover over clean fill) and clean fill vegetated cover in foreground.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
9	7/21/2020

DESCRIPTION
View of Data Center with showing potential future building pad with 1-foot of gravel cover. Clean fill vegetative cover and asphalt cover in foreground.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
10	7/21/2020

DESCRIPTION
View of Data Center with asphalt cover and clean fill vegetated cover in foreground.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
11	7/21/2020

DESCRIPTION
Restored northern water feature showing rip rap stream channel and wetland grasses.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
12	7/21/2020

DESCRIPTION
Restored northern water feature showing rip rap stream channel, culvert and wetland grasses.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
13	7/21/2020

DESCRIPTION
Data Center with asphalt cover and clean fill vegetated cover in foreground.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
14	7/21/2020

DESCRIPTION
Data Center with clean fill vegetated cover and concrete loading area cover in background.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
15	7/21/2020

DESCRIPTION
Clean fill vegetated cover with VVRC in background.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
16	7/21/2020

DESCRIPTION
Asphalt, concrete and clean-fill vegetated cover systems.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

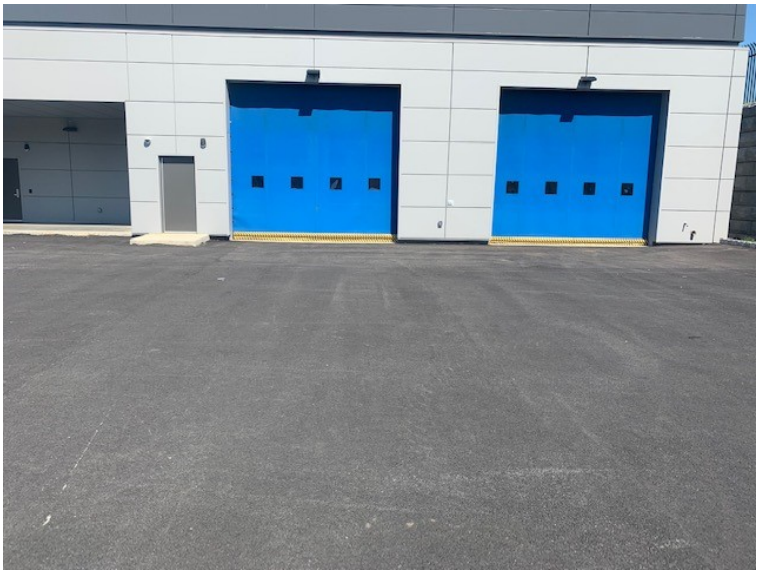
PHOTO NO.	DATE:
17	7/21/2020

DESCRIPTION
Gravel cover system under Transformer Yard.

CLIENT NAME: JPMorgan Chase Bank, National Association	SITE LOCATION: RPC – CORE AREA	PROJECT NO. 12.0076555.02

PHOTO NO.	DATE:
18	7/21/2020

DESCRIPTION
asphalt cover system with VVRC in background.



CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

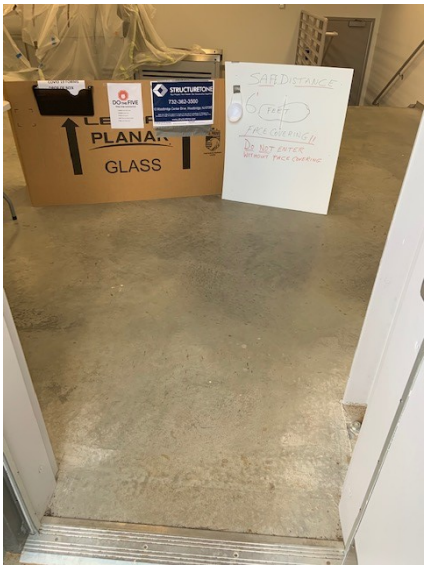
PHOTO NO.	**DATE:**
19	7/21/2020

DESCRIPTION
Asphalt cover system in foreground and clean fill vegetated cover system in background.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
20	7/22/2020

DESCRIPTION
Concrete cover system in VVRC.



CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
21	7/22/2020

DESCRIPTION
Concrete cover system in Data Center.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
22	7/24/2020

DESCRIPTION
Southwest side of site showing clean fill vegetated cover system.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
23	7/24/2020

DESCRIPTION
Detention Basin 6-inches of 3-inch stone over 3-inches of crushed stone over 6-inches of clean fill.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
24	7/24/2020

DESCRIPTION
Detention Basin 6 inches of topsoil over 6 inches of clay.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
25	7/24/2020

DESCRIPTION
6 inches of 3/4-inch stone over 6 inches of clay.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
26	7/24/2020

DESCRIPTION
South side of Site showing clean fill vegetated cover.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

PHOTO NO.	**DATE:**
27	7/24/2020

DESCRIPTION
South side of Site showing clean fill vegetated cover over security berm.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

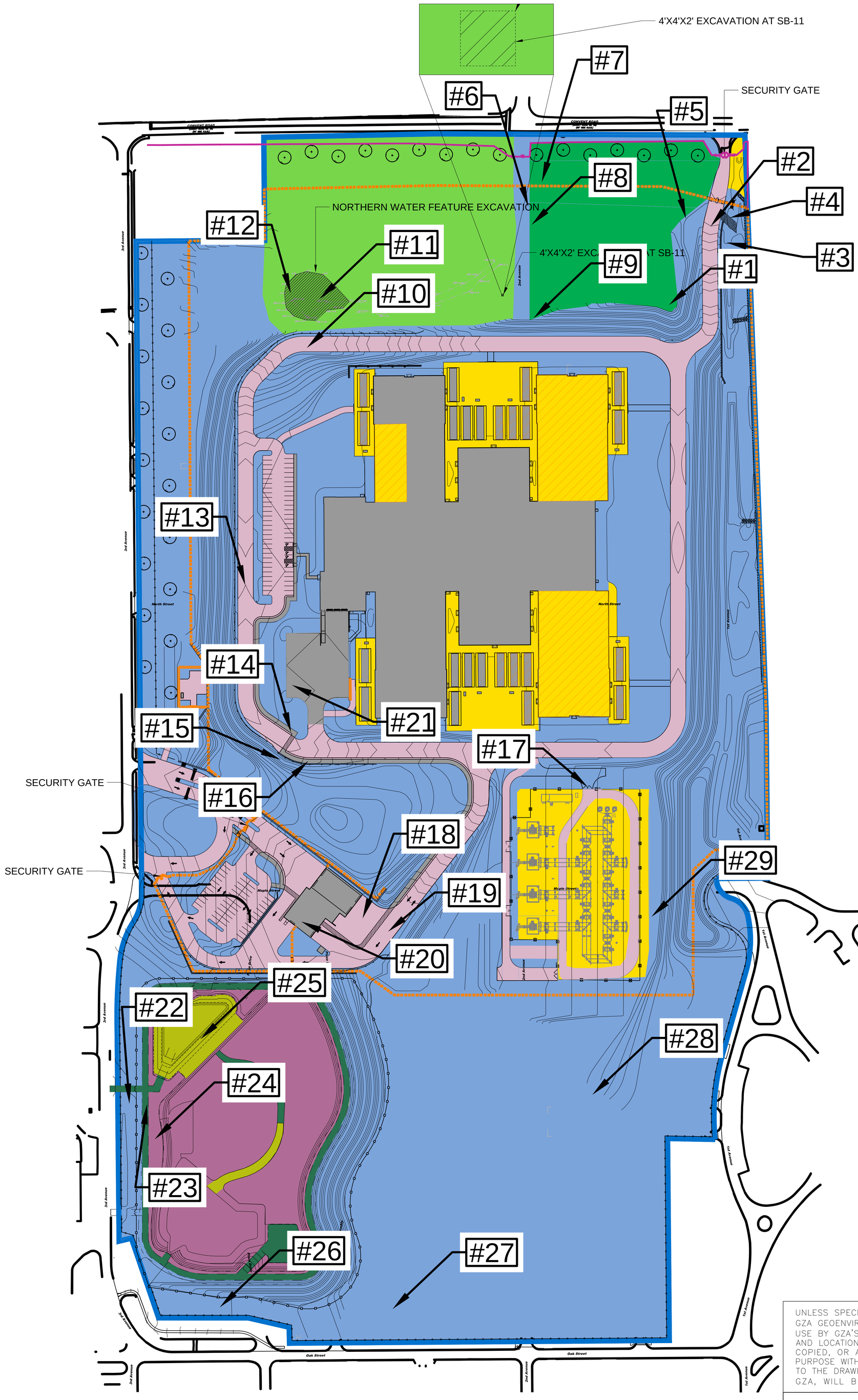
PHOTO NO.	**DATE:**
28	7/24/2020

DESCRIPTION
Southwest side of Site showing clean fill vegetated cover over security berm.

CLIENT NAME: JPMorgan Chase Bank, National Association	**SITE LOCATION:** RPC – CORE AREA	**PROJECT NO.** 12.0076555.02

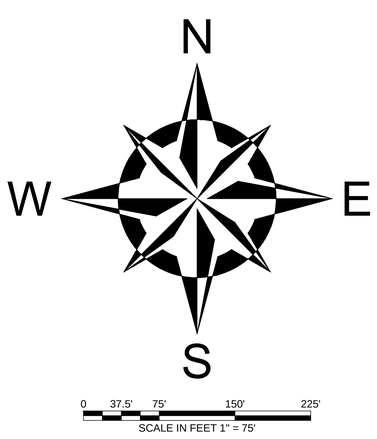
PHOTO NO.	**DATE:**
29	7/24/2020

DESCRIPTION
View of Transformer yard from the east showing gravel cover.



LEGEND

- CONCRETE COVER SYSTEM
- 1 FOOT CLEAN FILL COVER SYSTEM
- 1 FOOT CLEAN STONE COVER SYSTEM
- ASPHALT
- 1 FOOT OF GRAVEL OVER 1 FOOT CLEAN FILL COVER SYSTEM
- 6 INCHES OF 3-INCH STONE OVER 6 INCHES OF CLEAN FILL
- 6 INCHES OF 3-INCH STONE OVER 6 INCHES OF CLAY
- 6 INCHES OF TOPSOIL OVER 6 INCHES OF CLAY
- AREA WHERE COVER SYSTEM IS NOT REQUIRED PER NYSDEC APPROVED RAWP
- AREA TO BE CONSTRUCTED
- SITE SECURITY FENCE AND GATES
- CONVENT ROAD FENCE AND GATES
- GUARD RAIL
- SITE BOUNDARY
- EXCAVATED AREAS
- TREE
- #1 COVER INSPECTION PHOTO LOCATION



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140 OLD ORANGEBURG ROAD
ORANGEBURG, NEW YORK

COVER INSPECTION PHOTO LOG KEY

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: JP MORGAN CHASE AND COMPANY	
PROJ MGR: MS	REVIEWED BY: MS	CHECKED BY: MS	FIGURE 1
DESIGNED BY: DW	DRAWN BY: LN	SCALE: 1" = 75'	
DATE: JULY, 2020	PROJECT NO. 12.0076555.02	REVISION NO.	SHEET NO.

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