

PERIODIC REVIEW REPORT

July 29, 2019 to August 29, 2021

1966E Broadhollow Road
Farmingdale, NY 11735
Site #152119

Prepared for:

Curtiss-Wright Corporation

1966 E Broadhollow Road
Farmingdale, NY 11735

Prepared by:

Tyll Engineering and Consulting, PC

169 Commack Road, Suite 173
Commack, New York 11725

September 2021 (revised October 2021)



TYLL ENGINEERING & CONSULTING PC

Table of Contents

1.0	INTRODUCTION	1
1.1	Site Overview	1
1.2	Site History	1
1.3	Summary of Site Remedy	2
1.4	Site Closure Criteria	3
1.5	Deviations from the Remedial Action Work Plan	3
2.0	EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS	4
3.0	INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE REPORT	5
3.1	Engineering Controls	5
3.2	Institutional Controls	5
3.3	Status of Controls	6
3.3.1	Corrective Measures	7
3.4	IC/EC Certification	7
4.0	MONITORING PLAN COMPLIANCE REPORT	8
4.1	Summary of Indoor Air Sampling During the Reporting Period	9
4.2	Abandonment of the On-Site Monitoring Wells	10
5.0	OPERATION & MAINTENANCE (O&M) PLAN COMPLIANCE REPORT	11
5.1	UST Cap Area	11
5.2	HVAC System	11
6.0	CONCLUSIONS AND RECOMMENDATIONS	12

Figures

Figure 1 – Site Location Map

Figure 2 – Site Layout Plan

Figure 3 – West Building

Appendices

Appendix A – Site Wide Inspection Form

Appendix B – PRR Certification Forms

Appendix C – HVAC Pressure Investigation April 16, 2021

Appendix D – 2020 Indoor Air Quality Investigation

Appendix E – Well Abandonment Report

Appendix F – Site Photos

1.0 INTRODUCTION

The following Periodic Review Report (PRR) has been prepared by Tyll Engineering and Consulting, PC (TEC) on behalf of Curtiss-Wright Flow Control (Curtiss-Wright) for the property located at 1966 E Broadhollow Road, in East Farmingdale, New York (Site) (Figure 1). This PRR document was prepared in accordance with the Site Management requirements set forth in of the Site as detailed in the Site Management Plan (SMP) prepared by TetraTech for the New York State Department of Environmental Control (NYSDEC) dated July 2019 (NYSDEC site number 1-52-119). DER-10 and the site specific SMP. This document was prepared in accordance with the Site Management Plan (SMP) dated July 2019 for NYSDEC Site Number: 1-52-119.

1.1 Site Overview

The Site is located in East Farmingdale, County of Suffolk, New York and is identified as Section 17, Block 14, Lots 11 and 12 on the East Farmingdale Tax Map. The Site is approximately 11-acres in size and is bounded by commercial properties and parking lots to the north and east, a residential neighborhood to the south, (Alexander Avenue), and an apartment building to the west (on Melville Road) See Figures 1 and 2.

The site contains two manufacturing buildings designated as “East” and “West”. The West building is 400 feet x 250 feet and is used for manufacturing and office space; the East building is 350 feet x 300 feet and is used for shipping and receiving, valve testing, and contains additional manufacturing and office space.

1.2 Site History

The Site was originally used as a sand and gravel bank. In 1972, the East building was constructed and housed a J.C. Penney warehouse until 1981 when Target Rock Corporation (Target Rock) moved into the building. The exact date of construction of the West building is unknown. It was leased for office space by Target Rock who then purchased the property and expanded the building by 40,000 ft² in 1975.

Several environmental investigations have been performed at the Site over may years, the results of which have determined that there are no current or future environmental exposure pathways that require active remediation.

Between 1983 and 2009, several soil investigations were performed at the Site. The investigations were associated with a former 550-gallon UST that was the confirmed source of chlorinated volatile organic compounds in soil. The tank was removed in 2003/2004. In 2009, two (2) soil borings were advanced in the former UST area and soil samples were collected from each boring at 7.5 – 9.5 feet and 13 to 15 feet below grade. Three of the samples had no exceedances of the NYSDEC Soil

Cleanup Objectives (SCOs)s, however, one sample from the 13 to- 15 foot interval contained a marginal exceedance of tetrachloroethene (PCE) above the NYSDEC Unrestricted Use SCOs. This was the last soil investigation conducted at the Site. Though localized residual contamination remains at depth in the former UST area, the area is overlain by an asphalt capping system and no longer considered an environmental concern.

Between 1992 and 2010, seven (7) groundwater monitoring wells, TRMW_1 through TRMW-7, were installed at the Site and groundwater sampling for volatile organic compounds (VOCs) has been conducted. In 2011, based on the results of historic groundwater investigations, it was determined that no active groundwater remediation was required at the Site. Subsequent groundwater data collected during two sampling events in 2012 revealed no exceedances of NYSDEC groundwater standards for VOCs in any of the wells. As a result, groundwater use restrictions were deemed unnecessary at the Site.

1.3 Summary of Site Remedial Actions

The site was remediated in accordance with the NYSDEC March 2011 Record of Decision (ROD) which approved the Proposed Remedial Action Work Plan dated February 2011.

The following is a summary of the remedial actions performed at the site:

1. Imposition of an institutional control (IC) in the form of an environmental easement that required (1) limiting the use and development of the property to restricted residential use, which would also permit commercial or industrial uses; (2) compliance with the approved site management plan; and (3) completion and submittal of a periodic certification of engineering and institutional controls (EC/IC) to NYSDEC.
2. Development of a Site Management Plan (SMP) which includes the following EC/IC: (1) subsequent evaluation of the potential for vapor intrusion for any buildings developed on the site, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion; (2) monitoring of groundwater, soil vapor, sub-slab vapors, and indoor air; (3) identification of any use restrictions on the site; and (4) provisions for the continued proper operation and maintenance of the components of the remedy.
3. Periodic certification of EC/IC, prepared and submitted by a professional engineer or such other expert acceptable to the Department, by the property owner until the Department indicates in writing that this certification is no longer needed. This submittal includes (1) certification that the EC/ICs put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (2)

allowing the Department access to the site; and (3) certification that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the SMP unless otherwise approved by the Department.

4. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
5. Based on the potential presence of VOCs beneath the buildings, continued operation, maintenance and monitoring of the building HVAC system is required. Operation of the HVAC system, in conjunction with the building's competent concrete floor slab, mitigates the potential for indoor air to be impacted from sub-slab vapor intrusion.

1.4 Site Closure Criteria

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

1.5 Deviations from the Remedial Action Work Plan

No changes to the remedial design were reported or observed during the reporting period.

2.0 EVALUATE REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

An annual evaluation/inspection is completed at the Site to document the operation and effectiveness of the HVAC and soil cap.

The Site-wide inspection was conducted on June 27, 2021 by Karen Tyll, P.E. The inspection included the asphalt cap and the parking lots. The inspection form is enclosed as Appendix A. Select photographs taken during the inspection are also provided in Appendix A.

No additional inspections were conducted during this reporting period as there were no events that warranted inspections or emergency inspections. The Engineering Controls at the Site have been and continue to be in place and operating effectively to meet Remedial Action Objectives for both groundwater and soil vapor.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE REPORT

3.1 Engineering Controls

Engineering controls (ECs) at the Site consist of a soil and asphalt cap and the building HVAC System. Assurance of the ECs developed for the Site will be achieved using a combination of site inspections and annual certifications. The engineering control (UST cap) was inspected and evaluated on October 14, 2020 and June 27, 2021 by Karen Tyll, PE.

The UST cap prevents access to the localized residual contamination that remains beneath the former UST area, located in the northwest section of the site. This residual contamination in the former UST area is reported to be present at a depth of 12 to 15 feet below grade. This area is overlain by an asphalt cap system thus eliminating any potential for exposure. This cap system consists of the asphalt pavement, gravel sub-base and on-site soils. Procedures for the inspection and maintenance of this cap are provided in the Monitoring Plan included in Section 4 of the SMP.

The engineering controls (HVAC System) was inspected and pressure tested on April 16, 2021 by Chris Channing, PE. The operation of the HVAC to keep the building under positive pressure, in conjunction with the building's competent concrete floor slab, mitigates the potential for indoor air to be contaminated from sub-slab vapor intrusion. Accordingly, continued operation and maintenance of the building HVAC system is necessary until such time that residual VOCs in the subsurface are no longer present at a level that may cause an exceedance of the NYSDOH air quality criteria in the building.

3.2 Institutional Controls

A series of ICs is required by the ROD to: (1) implement, maintain, and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and (3) limit the use and development of the site to commercial, industrial, and restricted residential uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. These ICs are:

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns must be met.

- All ECs must be operated and maintained as specified in the SMP.
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Operation of the HVAC system in the West Building must be performed as defined in the SMP.
- 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.

ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The Site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

1. The property may only be used for commercial, industrial, or restricted residential use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.
2. The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
3. All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.
4. The potential for vapor intrusion must be evaluated for any buildings developed in the area, and any potential impacts that are identified must be monitored or mitigated.
5. Vegetable gardens and farming on the property are prohibited.
6. The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

The environmental easement for the site was executed by the Department on October 19, 2017 and filed with the Suffolk County Clerk on October 19, 2017. The County Recording Identifier number for this filing is D00012934 and Page number 420 and DT# 17-09607. A copy of the easement and proof of filing is provided in Appendix B of the Site Management Plan (not attached).

3.3 Status of Controls

At the time of this PRR, the Engineering Controls in the form of the UST cap and building HVAC system are operating as designed. The IC in the form of the environmental easement was completed and obtained on October 19, 2017.

3.3.1 Corrective Measures

During the June 27, 2021 Site inspection, cracks were observed in the asphalt UST cap that needed to be sealed. Curtiss-Wright sealed the cracks on August 2, 2021.

There are no other known deficiencies associated with the Engineering Control (HVAC System) or of the Institutional Controls at this time. As a result, no additional corrective measures are warranted.

3.4 IC/EC Certification

The annual certification for the Site consists of completed NYSDEC IC/EC Certification Forms. The completed IC/EC Certification Forms were signed on September 15, 2021 and are enclosed in Appendix B. The annual certification was prepared in accordance with the SMP and has been signed by the property owner, Curtiss-Wright Flow Control, and Karen Tyll, P.E., a professional engineer licensed to practice in New York State, as the Qualified Environmental Professional (QEP).

4.0 MONITORING PLAN COMPLIANCE REPORT

The Monitoring Plan describes the measures required for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site and all affected Site media identified below, if required. The Monitoring Plan may only be revised with the approval of NYSDEC.

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., indoor air, soil vapor);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance;
- Assessing that Engineering Controls are in place and properly maintained (i.e., the asphalt cap is in good repair and the HVAC system is operating properly to maintain positive pressure within the building).
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, the Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells.
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Annual monitoring of the performance of the remedy and overall reduction in contamination on-site and off-site will be conducted for the first five years. The frequency thereafter will be determined by NYSDEC. Trends in contaminant levels in air, soil, and/or groundwater in the affected areas, will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring program requirements are summarized below:

Matrix	Frequency	Analysis	Compliance Date (for the current review period)
Groundwater	TBD	VOCs	N/A
Soil	TBD, sampling may be required if Site conditions change		
Soil Vapor	TBD, Sampling may be required if EC are not operating as required or if site conditions change,	VOC (TO-15 over 8 hours)	N/A
Indoor Air	Once during 2019-2020 Heating Season. Sampling may be required if EC are not operating as required or if site conditions change,	VOC (TO-15 over 8 hours)	February 27, 2020
HVAC Inspection	Annually between November and May	N/A	April 16, 2021
Soil Cap Inspection	Biannually; in the Fall (September to December) and in the Spring (March to June)	N/A	October 14, 2020 June 27, 2021

4.1 Summary of Indoor Air Sampling During the Reporting Period

The approved SMP required that one additional indoor air quality monitoring event be performed during the 2019 – 2020 heating season (approximately between November 15, 2019, to March 31, 2020). On February 27, 2020, TEC conducted indoor air sampling; the sampling was conducted in accordance with previous indoor air sampling that occurred in August 2018.

Samples were collected in/from the same/proximate locations as those in 2018. The samples were analyzed for PCE, trichloroethene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA).

A total of twelve (12) indoor air samples were collected, four (4) in the East building and eight (8) samples from the West building. A review of the indoor air data indicates that indoor air detections of PCE and TCE were well below the NYSDOH Air Guideline Values of 30 micrograms per cubic meter (mcg/m³) and 2 mcg/m³, respectively. Indoor air sampling results can be found in Appendix D.

4.2 Abandonment of Site Monitoring Wells

On August 10th & 11th, 2021, PG Environmental Services, Inc. (PG Environmental) was contracted by Curtiss-Wright to abandon the seven on-site monitoring wells, TRMW-1 through TRMW-7. NYSDEC approved proposed abandonment activities on August 5, 2021. Six (6) of the seven (7) monitoring wells were abandoned as per NYSDEC CP-43- Groundwater Monitoring Well Decommissioning Policy. TRMW-4 was unable to be located after magnetometer and probing was attempted by PG Environmental; it is believed that this well was previously covered over with up to 12" asphalt. Well abandonment activities are captured in the Well Abandonment Report which was submitted to NYSDEC on September 21, 2021 and is provided in Appendix E.

5.0 OPERATION & MAINTENANCE (O&M) PLAN COMPLIANCE REPORT

5.1 UST Cap Area

The cap over the former UST area was constructed to minimize the infiltration of water into the subsurface and the subsequent migration of residual VOCs into the groundwater. This EC may require the following operation and maintenance activities:

- Biannual inspection to observe the integrity of the asphalt to shed water
- Periodic sealing of the asphalt
- Periodic sealing of cracks in the asphalt
- Period patching of potholes in the asphalt

Maintenance will be performed on an as-needed basis based on biannual inspections.

During the June 27, 2021 Site inspection, cracks were observed in the asphalt UST cap that needed to be sealed. Curtiss-Wright sealed the cracks on August 2, 2021.

5.2 HVAC System

Operation of the HVAC system is a mechanical control intended to maintain positive pressure in the building to mitigate the migration of soil vapors into the building. This EC may require the following operation and maintenance activities:

- Annual verification of the positive pressure within the building
- Evaluation and or modification of HVAC system components (air handlers, conveyance system, etc.) should the inspection indicate the positive pressure is not being maintained
- Evaluation of sub-slab soil gas and/or indoor air quality should the inspection indicate the positive pressure is not being maintained
- Evaluation of changes to the building structure that may affect air flow

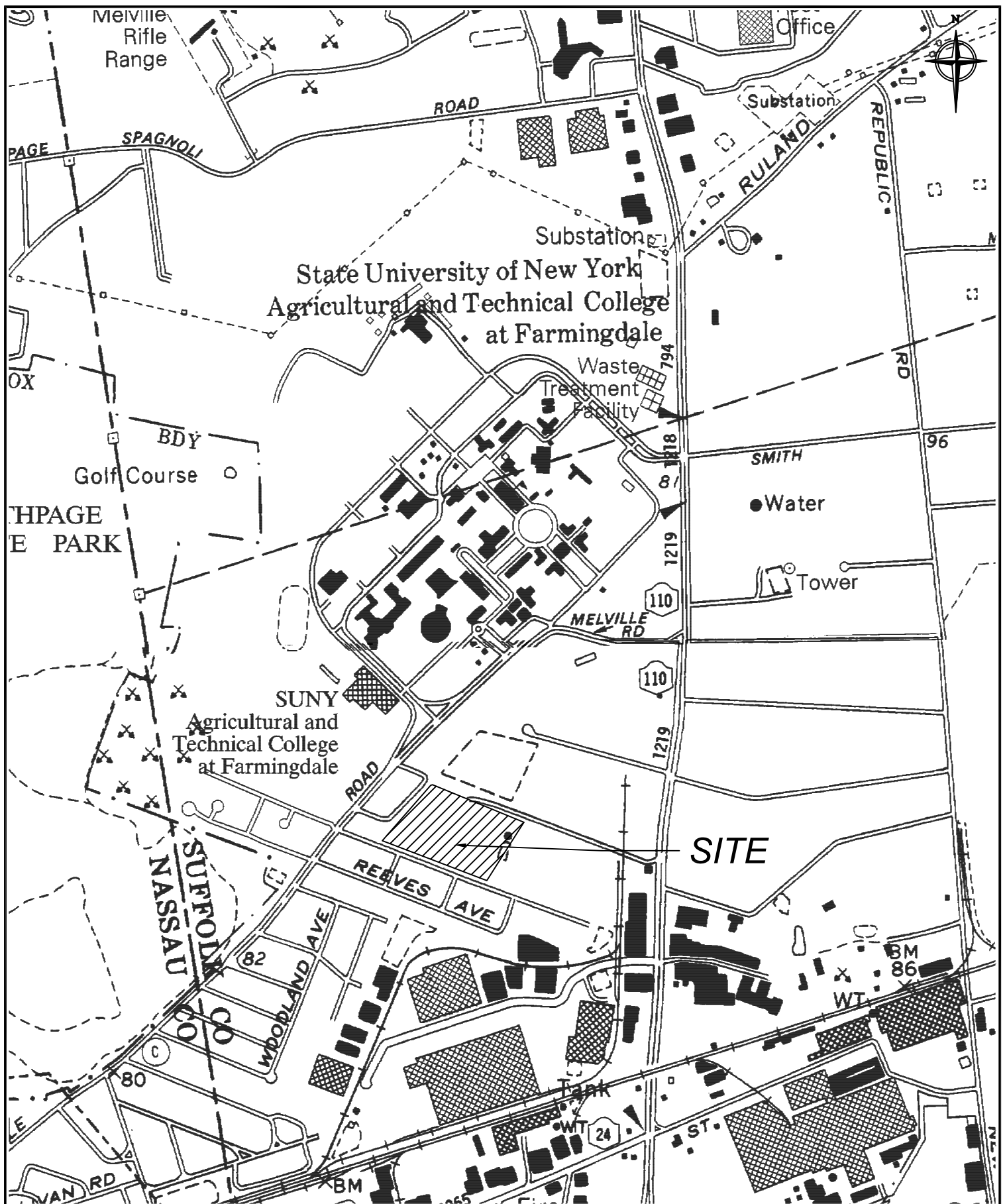
Maintenance will be performed on an as-needed basis based on annual inspections.

The HVAC system was inspected and pressure tested on April 16, 2021 by Chris Channing, PE. Results of the testing indicated that the HVAC system is running as designed and producing positive pressure in the building.

6.0 CONCLUSIONS AND RECOMMENDATIONS

During the reporting period, the Site ECs were determined to be operating as required by the ROD. No modifications to the ECs are required at this time.

Figures



PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 info@tyllengineering.com

TITLE:

SITE LOCATION MAP

1966E Broadhollow Road
East Farmingdale, New York

DRAWN:

-

SCALE:

NTS

DATE:

9-15-2021

PROJECT NO.:

CW2101

CHECKED:

KT

APPROVED:

KT

REVISION:

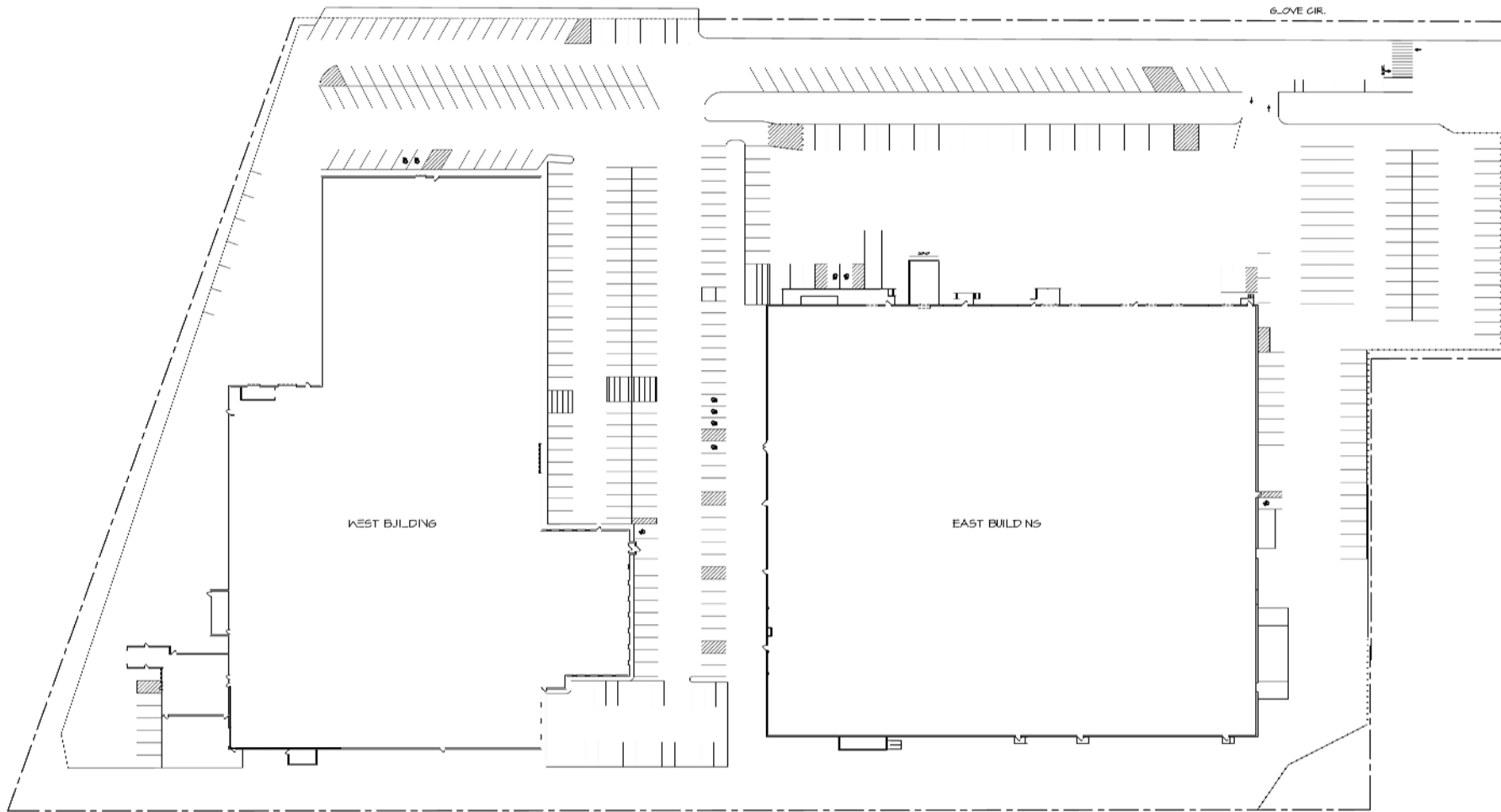
-

NOTES:

-

FIGURE NO.:

1



PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

TITLE:

SITE LAYOUT MAP
CURTISS-WRIGHT TARGET ROCK
FARMINGDALE, NY

DRAWN:

-

SCALE:

NTS

DATE:

9-15-2021

PROJECT NO.:

CW2101

CHECKED:

KT

APPROVED:

KT

REVISION:

-

NOTES:

-

FIGURE NO.:

2



LOCATION
OF SOIL CAP

WEST BUILDING

PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

TITLE:

WEST BUILDING
CURTISS-WRIGHT TARGET ROCK
FARMINGDALE, NY

DWN:

-

SCALE:

NTS

DATE:

9-15-2021

PROJECT NO.:

CW2101

CHKD:

KT

APPD:

KT

REV.:

-

NOTES:

-

FIGURE NO.:

3

Appendix A

Site-wide Inspection Form

ANNUAL SITE-WIDE INSPECTION FORM

Note: This document will be used to complete the annual certification of the Engineering Control (EC) at the site. The completed site inspection form will be provided in any Periodic Review Reports (PRR).

I. Background Site Information

A. Facility Name and Location:

Business Name: *Curtiss-Wright Corporation*

Name of the current operator at the site (if different than above):

Property Street Address: *1966 E Broadhollow Road*

Municipality (-ies): *East Farmingdale* County (-ies): *Suffolk*

State: *New York*

Blocks: *Section 17 Block 14*

Lots: *11 and 12*

Year of Tax map from which this information is obtained:

B. Person responsible for submitting the biennial certification monitoring report for a Deed Notice & Engineering Control (Self Explanatory)

Person's Name: *Thomas Gianni*

Person's Title: *Senior Manager Facilities & Safety*

Business Name: *Curtiss-Wright Corporation*

Relationship to the Site (check as appropriate): *Owner and Operator*

Street Address: *1966 E Broadhollow Road*

City: *East Farmingdale*

State: *New York*

Telephone Number: *(631) 396-4414*

FAX Number:

E-mail Address: *Tgianni@curtisswright.com*

C. Case Specific Information (Complete all that apply)

- Program Interest Name: *Curtiss-Wright Corporation*
- Site #: *152119*
- Order of Consent #: *WI-1031-04-10*
- Date of Record of Decision (ROD) for No Further Action for the site: *31 March 2011*

Appendix F

- Name and Bureau of assigned Case Manager: Robert Corcoran, Division of Environmental Remediation

D. Existing Site Conditions (Complete below or include as Attachment 1: Existing Site Conditions)

- Describe the physical characteristics of the Site:
The site is approximately 11 acres, located in the south-west corner of a commercial/industrial area off of Broad Hollow Road. The site is bounded to the north and east by large, widely-spaced commercial buildings and parking lots; to the south by a residential neighborhood, the closest street being Alexander Avenue; and to the west by an apartment building on Melville Road. Across Melville Road lies the SUNY Farmingdale campus. Site elevation ranges from 73 feet to 67 feet above sea level. The site is relatively flat, gradually sloping downward to the east and southeast. Because the site is part of a former sand and gravel mine, a sharp rise in elevation, approximately 30 feet, occurs at the southern and western property boundaries. Bedrock is approximately 1200 feet below sea level. Soils around the site consist of minor amounts of fill, sand and gravel in the medium to fine range, getting finer with depth.
- Describe the current site operations: *Curtiss-Wright manufactures valves for nuclear submarine power operations. These valves are manufactured and tested at the site.*
- Describe each engineering control that applies to the Restricted Areas: *The remaining on-site soil contamination is fill is capped with asphalt. The majority of the site is capped with asphalt or concrete slab foundations.*

II. Protectiveness Evaluation

A. Evaluation of Institutional and Engineering Controls

(The appropriate box on the left must be checked for each of the following items.)

1. Zoning or Land Use Change (Complete below or include as Attachment 3: Zoning or Land-Use Changes)

a. Has the land use changed? Yes ☐ No ☒

b. Current land use (check all that apply):

Non-Residential ☒ Residential ☐ Agricultural ☐ Other ☒

Appendix F

If the current land use is different than the land use at the time the EC/IC was filed, explain how the remedial action, which included the EC/IC, remains protective of public health and safety. Include the Case Manager's name and Bureau that approved this change, if applicable.

c. Has there been an actual or pending zoning or land-use change for the Restricted Area on which the Deed Notice/DER is filed?

Yes _____ No ☒

2. **Inspections** (Complete below or include as Attachment 4: **Inspections: Excavations and Disturbances**)

Have periodic inspections of the site identified any excavation or other disturbance activities that have taken place within the restricted areas?

Yes _____ No ☒ (If Yes, please describe below)

Date(s) of Disturbance:

Duration of Disturbance: Years _____ Months _____ Days _____

Date the NYSDEC was called to report disturbance:

Description of the disturbance and methods to address the disturbance:

Name of Contact Person Relative to the Disturbance:

Title:

Street Address:

City: _____ State: _____ Zip Code: _____

Telephone Number:

Email Address:

Was all soil excavated and returned to the Restricted Area?

Yes _____ No _____ (If No, provide an explanation)

Quantity of soil generated for disposal (if applicable):

Attach Transportation/disposal documentation.

State precautions taken during the above activities to prevent contaminant exposure:

Appendix F

Provide an explanation of how the engineering control was replaced following the disturbance?

3. Changes to Laws and Regulations (Complete below or include as Attachment 5: Changes to Laws and Regulations)

- a. Are there any subsequently promulgated or modified environmental laws or regulations (see Table 1), which apply to the site?

Yes ____ No ☒ (If No, proceed to #4 below)

- b. If Yes, has the evaluation also determined that each EC/IC, as applicable, meets the requirements of the new laws and regulations?

Yes ____ No ____ (If Yes, proceed to #4 below)

- c. Each EC/IC, as applicable that did not meet the requirements of the new laws and regulations has been addressed in the following manner to bring them into compliance:

4. Detailed Maintenance Logs (Complete below or include as Attachment 6: Detailed Inspection and Maintenance Logs)

Attach a copy of the detailed maintenance log of how the persons responsible for monitoring and ensuring the protectiveness of the remedial action have maintained and evaluated the EC:

The detailed maintenance log must be:

- i. completed each time a site inspection is performed to evaluate ECs at the site and
- ii. a copy of the detailed maintenance log attached to this certification in addition to the following information:

Date(s) of all Inspections: 10/14/2020 & 6/27/2021

Name(s) of Inspectors: Karen Tyll, PE

Inspection was completed on each date above at the location of the Asphalt UST Cap on the western side of the building. The asphalt cap was inspected for cracks, holes, and gaps.

Appendix F

III. Certifications

A. Certification, Copying and Reporting

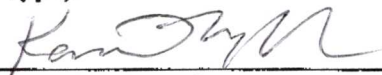
Semi-annual certification monitoring inspection forms will be included in all PRRs. These forms will be available to the NYSDEC case manager upon request.

B. Person Responsible for the Annual Certification Monitoring Inspections:

Based upon all of the information that I have provided above, I hereby certify that the remedial action(s) for which this EC/IC was established remain protective of public health and safety and of the environment.

Name (print or Type): Karen Tyll, PE, Environmental Consultant

Title:

Signature: 

Name of Company or Corporation: Tyll Engineering and Consulting, PC

Date: 9/27/2021

Appendix H

Engineering Control (EC) Checklist

Site Name: Target Rock

Location: 1966 Broadhollow Road, East Farmingdale, Suffolk County, NY

Site No.: 1966E

Case Manager: Robert Corcoran

The SMP for the aforementioned site includes at a minimum an Institutional Control (IC) and EC as well as provision for the periodic certification of the IC and EC and includes a Site Monitoring Plan. Each of these individual areas of reporting will need to meet the minimum requirements detailed below.

The SMP for the site addresses:

- ☒ The entire site **BUILDING HVAC AND ASPHALT UST CAP**
- ☐ An operable unit of the site identified as: _____
- ☐ An IRM for operable unit ____ identified as _____
- ☐ A groundwater restriction and IC/EC for the site

A Periodic Report Review (PRR) will be submitted following sampling events.

Institutional Control and Engineering Control (IC/EC) Certification: The applicant or site owner must make a periodic certification of the IC/EC to the Department. The requirements of this periodic IC/EC certification will be described in the SMP and the certification must be included in the PRR, which is prepared and submitted for the Department-approved certification period. The IC/EC certification will clearly identify the periodic review period and certify that:

☒ The institutional controls and/or engineering controls employed at such site are:

unchanged from the date the control was put in place, unless otherwise approved by the Department;

in place and effective;

performing as designed;

nothing has occurred that would impair the ability of the controls to protect the public health and environment; and

nothing has occurred that constitutes a violation or failure to comply with any operation and maintenance plan for such controls.

☒ Use of the site complies with the environmental easement;

☒ Access to the site will be provided to the Department to evaluate the remedy and verify continued maintenance of such controls.

☒ If a financial assurance mechanism is required, the mechanism remains valid and sufficient for the intended purpose.

If the remedy requires only institutional controls, the certification may be made by the property owner. If the remedy includes engineering controls, the certification must be made by a qualified environmental professional or, if engineering evaluations are required, a licensed professional engineer.

Appendix B

Certification Forms



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site No.	Site Details	Box 1
152119		
Site Name Target Rock Corp.		
Site Address: 1966 East Broadhollow Road Zip Code: 11735		
City/Town: East Farmingdale		
County: Suffolk		
Site Acreage: 10.940		
Reporting Period: July 29, 2019 to August 29, 2021		
		YES NO
1. Is the information above correct?		<input checked="" type="checkbox"/> <input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/> <input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		<input type="checkbox"/> <input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		<input type="checkbox"/> <input checked="" type="checkbox"/>

	Box 2
	YES NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/> <input type="checkbox"/>
7. Are all ICs in place and functioning as designed?	<input checked="" type="checkbox"/> <input type="checkbox"/>

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
0100031000100002002	Target Rock Corp.	Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Ground Water Use Restriction

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns must be met.

All ECs must be operated and maintained as specified in the SMP.

All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

Operation of the HVAC system in the West Building must be performed as defined in the SMP.

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.

The property may only be used for commercial, industrial, or restricted residential use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.

The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.

Vegetable gardens and farming on the property are prohibited.

0100031000100002003	Target Rock Corp.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
---------------------	-------------------	--

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns must be met.

All ECs must be operated and maintained as specified in the SMP.

All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

Operation of the HVAC system in the West Building must be performed as defined in the SMP.

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.

The property may only be used for commercial, industrial, or restricted residential use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.

The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.

Vegetable gardens and farming on the property are prohibited.

0100031000100002004 TARGET ROCK CORP

O&M Plan
IC/EC Plan
Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Building Use Restriction
Monitoring Plan
Site Management Plan

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns must be met.

All ECs must be operated and maintained as specified in the SMP.

All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

Operation of the HVAC system in the West Building must be performed as defined in the SMP.

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.

The property may only be used for commercial, industrial, or restricted residential use provided that the long-term Engineering and Institutional Controls included in the SMP are employed.

The property may not be used for a higher level of use, such as unrestricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.

Vegetable gardens and farming on the property are prohibited.

Box 4

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
---------------	----------------------------

0100031000100002002	
---------------------	--

	Vapor Mitigation Cover System
--	----------------------------------

Localized residual contamination remains beneath the former UST area, located in the northwest section of the site. This residual contamination in the former UST area is present at a depth of 12 to 15 feet below grade. This area is overlain by an asphalt cap system thus eliminating any potential for exposure. This cap system consists of the asphalt pavement, gravel sub-base and on-site soils. Procedures for the inspection and maintenance of this cap are provided in the Monitoring Plan included in Section 4 of the SMP.

The HVAC system keeps the building under positive pressure. Operation of the HVAC, in conjunction with the building's competent concrete floor slab, mitigates the potential for indoor air to be contaminated from sub-slab vapor intrusion. Accordingly, continued operation and maintenance of the building HVAC system will be necessary until such time that residual VOCs in the subsurface are no longer present at a level that may cause an exceedance of the NYSDOH air quality criteria in the building.

0100031000100002003

Parcel

Engineering Control

Vapor Mitigation
Cover System

Localized residual contamination remains beneath the former UST area, located in the northwest section of the site. This residual contamination in the former UST area is present at a depth of 12 to 15 feet below grade. This area is overlain by an asphalt cap system thus eliminating any potential for exposure. This cap system consists of the asphalt pavement, gravel sub-base and on-site soils. Procedures for the inspection and maintenance of this cap are provided in the Monitoring Plan included in Section 4 of the SMP.

The HVAC system keeps the building under positive pressure. Operation of the HVAC, in conjunction with the building's competent concrete floor slab, mitigates the potential for indoor air to be contaminated from sub-slab vapor intrusion. Accordingly, continued operation and maintenance of the building HVAC system will be necessary until such time that residual VOCs in the subsurface are no longer present at a level that may cause an exceedance of the NYSDOH air quality criteria in the building.

0100031000100002004

Vapor Mitigation
Cover System

Localized residual contamination remains beneath the former UST area, located in the northwest section of the site. This residual contamination in the former UST area is present at a depth of 12 to 15 feet below grade. This area is overlain by an asphalt cap system thus eliminating any potential for exposure. This cap system consists of the asphalt pavement, gravel sub-base and on-site soils. Procedures for the inspection and maintenance of this cap are provided in the Monitoring Plan included in Section 4 of the SMP.

The HVAC system keeps the building under positive pressure. Operation of the HVAC, in conjunction with the building's competent concrete floor slab, mitigates the potential for indoor air to be contaminated from sub-slab vapor intrusion. Accordingly, continued operation and maintenance of the building HVAC system will be necessary until such time that residual VOCs in the subsurface are no longer present at a level that may cause an exceedance of the NYSDOH air quality criteria in the building.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

b) to the best of my 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 the information presented is accurate and complete.

YES NO

X ☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

X ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 152119

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I THOMAS GIANNI at 1966 E Broadhollow Road
East Farmingdale, NY 11735
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Thomas Gianni FACILITY AND SAFETY MANAGER 9/15/21
Signature of Owner, Remedial Party, or Designated Representative Date
Rendering Certification

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Karen Tyll, PE

169 Commack Road, Suite H173,
Commack, NY 11725

I _____ at _____
print name print business address

am certifying as a Qualified Environmental Professional for the _____ Owner
(Owner or Remedial Party)



Karen Tyll

Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

9/15/21
Date

Stamp
(Required for PE)

Appendix C
HVACPPressure
Investigation
4/4/16/2021

C.P. CHANNING P.E.
132 PINE ST.
EAST MORICHES, NY. 11940
PHONE (516) 381-3032
CPCHANNING@OPTONLINE.NET

Project location:

Curtis Wright Corp
Target Rock
West building
1966E Broadhollow Rd
Farmingdale, N.Y. 11735

Task Description: Measure pressure relationships between the inside of the building and outside to verify the building is under positive pressure.

Objective: Confirm pressure relationship between inside of building and outside

Test methodology: Differential pressure between inside and outside was measures at 7 locations at three intervals during the course of a day. Locations of inside reading are indicated on attached drawing. Readings were taken on 4/16/21.

Measurements were taken with TSI Velocicalc differential digital manometer with +/- 1% accuracy and measured in inch of water column.

DATA 4/16/21

All readings show positive pressurization and are in inches of water column

Location	9:00 Reading	12:00 Reading	14:00 reading
1	.025	.022	.021
2	.015	.015	.016
3	.016	.017	.017
4	.018	.018	.017
5	.014	.013	.013
6	.016	.017	.017
Lobby	.017	.018	.018

Conclusion:

Space pressure in relation to outside was at positive pressure at all location and intervals during the inspection period.



Chris Channing P.E.



Appendix D

2020 Indoor Air Quality Investigation



July 7, 2020

Mr. Jared Donaldson
Project Manager
Remedial Bureau A
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7015

**Re: Summary of 2020 Indoor Air Quality Investigation
Curtiss Wright Flow Control Corporation
Target Rock Division, 1966 E Broadhollow Road, Farmingdale, NY**

Dear Mr. Donaldson:

Tyll Engineering and Consulting, PC (TEC) has prepared the following report summarizing an Indoor Air Quality (IAQ) investigation conducted at the above-referenced site (Site) in February 2020. The IAQ investigation was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan (SMP) for the subject Site which requires IAQ sampling be conducted during the 2019/2020 heating season.

SCOPE OF WORK

IAQ sampling was conducted to evaluate current air quality at the Site as it pertains to three chlorinated solvent compounds, namely tetrachloroethene (PCE or PERC), trichloroethene (TCE), and 1,1,1-trichloroethane (1,1,1-TCA). Previous IAQ sampling events were completed in 2012 and 2018. 2020 sampling locations were intended to be the same/proximate to those locations sampled in 2018.

DISCUSSION

On February 26, 2020, TEC visited the site to prepare the sampling equipment and identify previous sampling locations. Sampling locations were intended to correspond to the locations of existing sub-slab vapor points, however, some of these points were unable to be found. Chemical inventories at each sample location were completed before and during the sampling event. Field sampling records are provided in Attachment 1.



On February 27, 2020, twelve indoor ambient air samples (**CW-IA-1 to CW-IA-12**) were collected within the Eastern and Western buildings. All samples were collected in six-liter Summa canisters with flow-controlling regulators over an eight-hour period. Samples were collected between 7:00 AM and 4:30 PM (depending on start times) over an eight-hour period.

As indicated, samples were intended to be collected at the same locations sampled in 2018, some of which were co-located with sub-slab vapor points. Many of the previous sampling and sub-slab vapor points were not able to be identified, however, due to the presence of equipment, shelving, and pallets that had been relocated/moved since the 2018 sampling. Site personnel were enlisted to help find the former sampling locations, but they were also unable to locate many of the former points. As a result, 2020 samples were located as close as possible/proximate to the 2018 sampling locations based on available descriptions and maps.

Figures 2 and 3 present the locations of IAQ samples collected in 2020 by building. A description of sample locations is as follows:

Western Building

CW-IA-1 was collected adjacent to SS-6, approximately 2.5 feet above the floor in the lab in the southeastern corner of the Western building by the parking lot (**Photo#1**). The Photoionization detector (PID) yielded a reading of 3.2 parts per million (ppm) total volatiles in this location; acetone, isopropyl alcohol squirt bottles and P-37 anti-seize paste were observed in the vicinity.

CW-IA-2 was collected approximately 2.5 feet above the floor west of the main aisle of the Assembly & Test (A&T) shop across from the NuTorque area (**Photo#2**). The PID yielded a reading of 1.0 ppm total volatiles in this area and several acetone and isopropyl alcohol squirt bottles and a small pail of PF-HP Degreaser PF-145 were observed in the area.

CW-IA-3 was collected approximately 2.5 feet above the floor in the Hydraulic Operating Gate Valve area adjacent to the main aisle (**Photo#3**). A PID reading of 0.8 ppm total volatiles was recorded in the vicinity. Several squirt bottles of acetone and isopropyl alcohol and Formula LNC2 electrolyte solution were observed in the surrounding area.

The 2018 location of sample SS-4 was unable to be located so **CW-IA-4** was collected approximately 2.5 feet above the floor in the storage area adjacent to the main aisle outside of the western stockroom door/gate (**Photo#4**). The PID yielded a reading of 0.6 ppm total volatiles in the sample vicinity; no chemicals were observed in the surrounding area.

CW-IA-5 was collected adjacent to SS-1, approximately 2.5 feet above the floor in the Weld Shop at the northwestern corner of the western building (**Photo#5**). The PID yielded a reading of 1.8 ppm total volatiles; several acetone and isopropyl alcohol bottles, Dychem Blue, Spotcheck, Tank #34 – 50 Gallons Liquid Penetrant Inspection (LPI) Wastewater, SKD-52 Aerosol, SKI-SK2 Aerosol Penetrant (red), stainless steel cleaner (EP-1306), SKC-S Spot Check,



and various other cleaners were observed in the vicinity of the sample location and within the flammable cabinet.

The 2018 sample location for SS-3 was unable to be located so **CW-IA-6** was collected approximately 2.5 feet above the floor in the center of the A&T shop area adjacent to the main aisle (**Photo#6**). The PID yielded a reading of 1.3 ppm total volatiles and several acetone and isopropyl alcohol squirt bottles were observed in the area.

Similar to location SS-3, the 2018 sample location for SS-2 was also unable to be located. Accordingly, **CW-IA-7** was collected approximately 6.0 feet above the floor on the top step of metal stairs in the Rear Dock area adjacent to the Clean Room (**Photo#7**). A PID reading of 0.6 ppm total volatiles was recorded in the vicinity of the sample and acetone and isopropyl alcohol drums were stored in the area.

CW-IA-8 was collected approximately 4.5 feet above ground, on a table in the Hot Loop area adjacent to a 200-gallon Hydrochloric Acid Tank (#12) and a 200-gallon Caustic Tank (#13) (**Photo#8**). A PID reading of 0.1 ppm total volatiles was recorded in the sample vicinity; several acetone and isopropyl alcohol squirt bottles and ZEP Cleaner were observed proximate to this location.

Eastern Building

CW-IA-9 was collected in the Training Area (**Photo#9**) in the vicinity of the 2018 location of SS-7 which was unable to be located. The summa canister was placed on a small step stool which brought the sampling port approximately 4.5 feet above the floor. PID readings in the area surrounding the canister were 0.2 ppm total volatiles; several bottles of acetone, multiple cans of latex paint, spackle, Windex, and a machine coolant spray bottle were noted in the vicinity.

CW-IA-10 was collected at ground level adjacent to the 2018 location of SS-8 outside the drum storage and compressor rooms (**Photo#10**). PID readings of 1.5 ppm total volatiles were recorded in the vicinity of the sample location. Squirt bottles of acetone and isopropyl alcohol, drums of Hocut 795 machine coolant, Windex, ArmaKleen Parts Cleaner, Aeon 900 compressor oil, Master Stages Clean 2017 Spray cleaner, Mobil grease and motor oil, machine coolants and cutting oils, pipe dope, and various other small containers of chemicals/oils were located nearby.

CW-IA-11 was collected adjacent to the main aisle of the East Shop and was placed on the ground in an area used for storage (**Photo#11**). The PID reading in this location was 0 ppm; acetone and various cleaners were observed in the vicinity.

CW-IA-12 was collected on a metal rack located approximately 5.5 feet above the floor in the E1 Inspection area adjacent to the Facilities offices (**Photo#12**). A PID reading of 2.1 parts per million (ppm) total volatiles was recorded in the vicinity. Acetone, wire pulling lubricant,



concrete patch, PVC cement, primer and cleaner, pipe dope, Ready mix concrete patch, Raid, and Pre-mixed gas/oil mixture were observed in the area.

Upon completion of the IAQ sampling, the samples were taken by lab courier to Alpha Analytical Laboratories in Mansfield, MA (NYSDOH ELAP #11148) and analyzed according to EPA Method TO-15 low level (SIM for chlorinated compounds).

RESULTS

Table 1 presents sample details for the IAQ samples and analytical results are presented in Table 2. The Laboratory Analytical Data Package is provided in Attachment 2. Analytical results were evaluated using the Air Guideline Values (AGV) in NYSDOH's October 2006 "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" and the Fact Sheets for PERC and TCE.

Comparison of the sample results for PCE, TCE and 1,1,1-TCA to applicable New York State Department of Health (NYSDOH) air guideline values is provided in Table 2. Though there were concentrations of chlorinated compounds detected in some of the indoor air samples, none of the detections were above respective NYSDOH AGVs for PCE or TCE. There is no listed NYSDOH AGV for 1,1,1-TCA.

CONCLUSIONS

Results for IAQ samples collected in February 2020 did not detect concentrations of PCE, TCE or 1,1,1-TCA above applicable NYSDOH criteria in any of the samples.

If you have any questions concerning the 2020 IAQ results or information contained in this report, please do not hesitate to contact us.

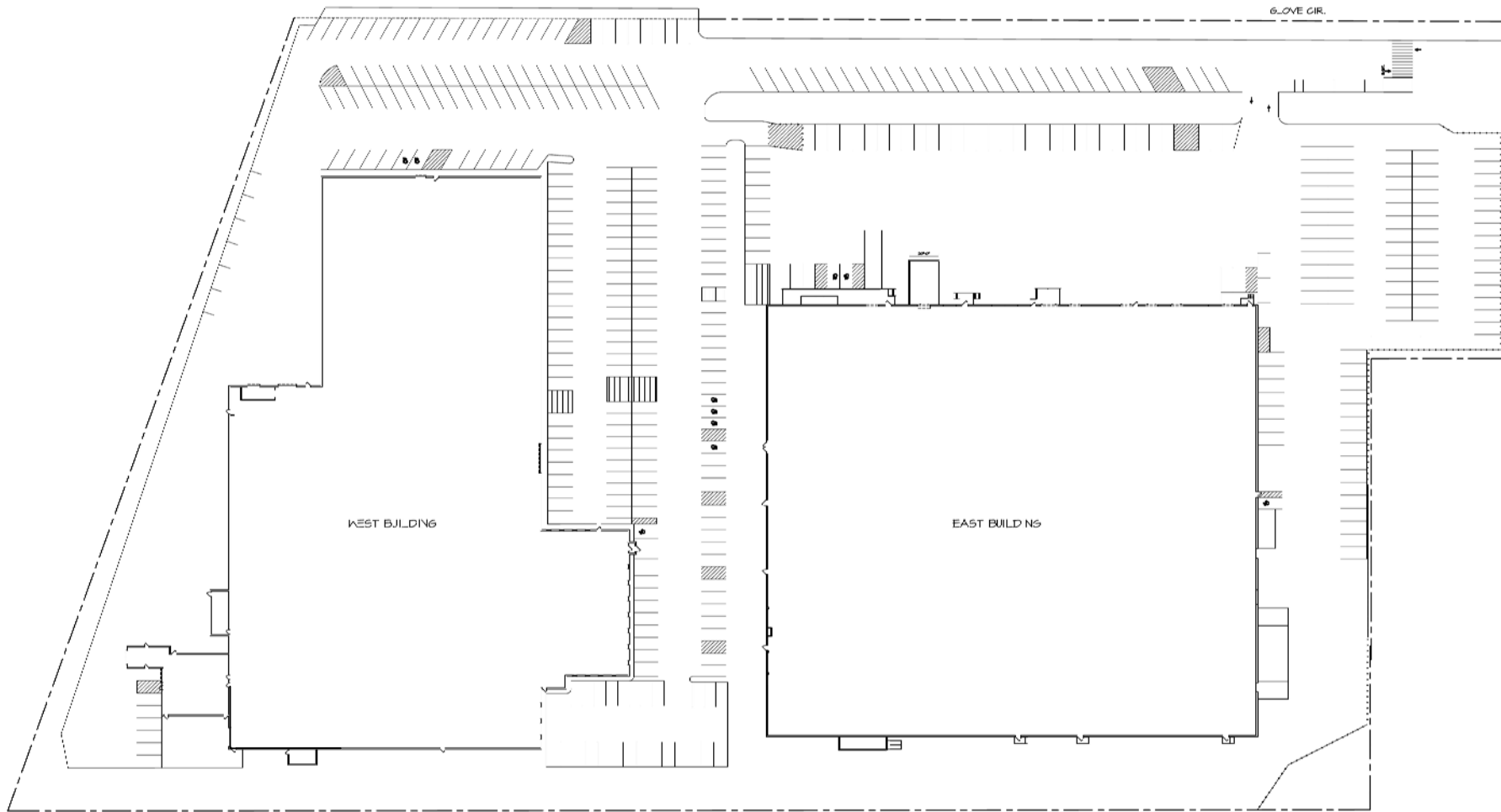
Very truly yours,

TYLL ENGINEERING AND CONSULTING PC

Karen G. Tyll, P.E.
President

CC: Tom Gianni, Curtiss-Wright
Michael Cinque, Curtiss-Wright
Carolyn Straton, Curtiss-Wright

FIGURES



PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

TITLE:

SITE LOCATION MAP
CURTISS-WRIGHT TARGET ROCK
FARMINGDALE, NY

DRAWN:

-

SCALE:

NTS

DATE:

3-25-2020

PROJECT NO.:

CW2001

CHECKED:

KT

APPROVED:

KT

REVISION:

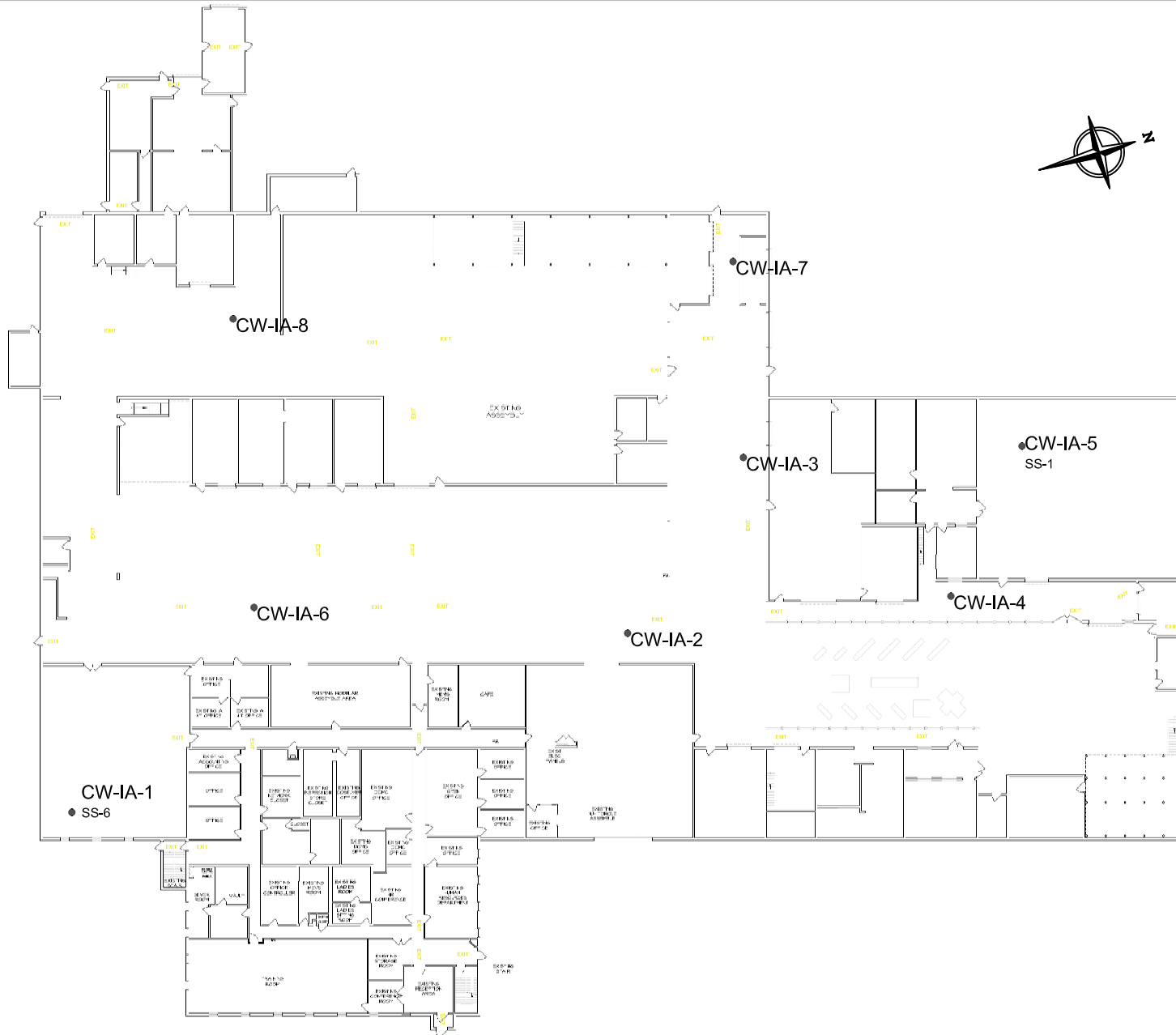
-

NOTES:

-

FIGURE NO.:

1



PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

TITLE:

INDOOR AIR SAMPLING LOCATION MAP - WEST

CURTISS-WRIGHT TARGET ROCK
FARMINGDALE, NY

DRAWN:

-

SCALE:

NTS

DATE:

3-25-2020

PROJECT NO.:

CW2001

CHECKED:

KT

APPROVED:

KT

REVISION:

-

NOTES:

-

FIGURE NO.:

2



FIRST FLOOR PLAN (EAST BLDG.)

PREPARED BY:



**TYLL ENGINEERING &
CONSULTING PC**

169 Commack Road, Suite H173, Commack, NY 11725
PHONE: (631) 629-5373 Info@tyllengineering.com

TITLE:

INDOOR AIR SAMPLING LOCATION MAP - EAST

CURTISS-WRIGHT TARGET ROCK
FARMINGDALE, NY

DRAWN:

-

SCALE:

NTS

DATE:

3-15-2020

PROJECT NO.:

CW2001

CHECKED:

KT

APPROVED:

KT

REVISION:

-

NOTES:

-

FIGURE NO.:

1

TABLES

Table 1
Indoor Air Quality Study Data
Curtiss-Wright Target Rock
Farmingdale, New York

Sample ID	Sampling Date	Start Time	End Time	Start Pressure	End Pressure	Canister ID	Flow Controller ID
EAST BUILDING							
CW-IA-9	2/27/2020	7:22	15:22	-29.28	-4.94	2933	01791
CW-IA-10	2/27/2020	7:30	15:34	-30.04	-6.04	902	01825
CW-IA-11	2/27/2020	7:26	15:26	-29.47	-6.14	2284	0724
CW-IA-12	2/27/2020	7:27	15:29	-29.44	-1.08	1642	01633
WEST BUILDING							
CW-IA-1	2/27/2020	8:07	16:07	-29.36	-6.24	590	01525
CW-IA-2	2/27/2020	8:04	16:04	-29.54	-6.55	2594	01787
CW-IA-3	2/27/2020	7:50	15:51	-29.04	-3.78	3285	01591
CW-IA-4	2/27/2020	7:56	15:56	-28.26	-5.4	642	01647
CW-IA-5	2/27/2020	7:57	15:59	-29.53	-5.74	593	0758
CW-IA-6	2/27/2020	8:10	16:11	-29.49	-6.32	1652	01774
CW-IA-7	2/27/2020	7:48	15:48	-29.23	-5.88	2680	01619
CW-IA-8	2/27/2020	7:44	15:44	-29.09	-6.2	2987	01706

Table 2
Indoor Air Quality Study Results
Curtiss-Wright Target Rock
Farmingdale, New York

Sample ID	Analyte	Sample Result (ug/m ³)	NYSDOH Air Guidance Value (ug/m ³)
WEST BUILDING			
CW-IA-1	Tetrachloroethene	0.522	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-2	Tetrachloroethene	0.488	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-3	Tetrachloroethene	0.475	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-4	Tetrachloroethene	0.441	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-5	Tetrachloroethene	0.651	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	0.115	N/A
CW-IA-6	Tetrachloroethene	0.549	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-7	Tetrachloroethene	0.427	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-8	Tetrachloroethene	0.597	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
EAST BUILDING			
CW-IA-9	Tetrachloroethene	0.292	30
	Trichloroethene	< 0.107	2
	1,1,1-Trichloroethane	< 0.109	N/A
CW-IA-10	Tetrachloroethene	0.468	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	0.289	N/A
CW-IA-11	Tetrachloroethene	0.237	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A
CW-IA-12	Tetrachloroethene	0.251	30
	Trichloroethene	<0.107	2
	1,1,1-Trichloroethane	<0.109	N/A

ATTACHMENT 1

Air Sampling Data Sheets



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-1

Canister ID 590

Sampler K.Tyll

Canister Volume 6 liter

Location lab corner by parking lot

Flow Controller ID 01525

Height _____

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor) indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	8:07	-25.36
Final Canister Vacuum	2/27/20	16:07	-6.24

Weather or Ambient Conditions: _____

PID at Location: 3.2 ppm

Comments: chemical inventory IPA + Acetone squirt bottle

P-37 Antisieze Paste



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-2

Canister ID 2594

Sampler K.Tyll

Canister Volume 6 liter

Location AT outside of New York

Flow Controller ID 01787

Height ground

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	8:04	-29.54
Final Canister Vacuum	2/27/20	16:04	-6.55

Weather or Ambient Conditions: _____

PID at Location: 1.0 ppm

Comments: chemical inventory

Acetone, PF-HP Degreaser PF-145



TyII Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building
Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-3 Canister ID 3285
Sampler K.TyII Canister Volume 6 liter
Location Hog Flow Controller ID 01591
Height ground Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:50	-29.04
Final Canister Vacuum	2/27/20	15:51	-3.78

Weather or Ambient Conditions: _____

PID at Location: 0.8 CO2 ppm (6.7 max in area adjacent)

Comments: chemical inventory

Small bottles of acetone + IPA, electrolyte solution



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-4

Canister ID 642

Sampler K.Tyll

Canister Volume 6 liter

Location Stockroom ^{Outside} ~~Garage~~

Flow Controller ID 01647

Height _____

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:56	- 28.26
Final Canister Vacuum	2/27/20	15:56	- 5.40

Weather or Ambient Conditions: _____

PID at Location: 0.6 ppm

Comments: chemical inventory

none seen



TyII Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-5

Canister ID 593

Sampler K. TyII

Canister Volume 6 liter

Location Weld shop

Flow Controller ID 0758

Height ground

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:57	-29.53
Final Canister Vacuum	2/27/20	15:59	-57.4

Weather or Ambient Conditions: _____

PID at Location: @ 1.8 ppm

Comments: chemical inventory

Dykem Blue, Spotcheck, Acetone, IPA, Anti-freeze/coolant

Tank #34 - LPI wastewater 50 gal, SKD-S2 Aerosol, SKI-SP2 Aerosol Penetrant (red)
Stainless Steel Cleaner (EP-1306), SKC-S Spot check, various cleaners

Flammable
cabinet →



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-6

Canister ID 1652

Sampler K.Tyll

Canister Volume 6 liter

Location Center AT

Flow Controller ID 01774

Height ground

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	8:10	-29.49
Final Canister Vacuum	2/27/20	16:11	-6.32

Weather or Ambient Conditions: _____

PID at Location: 1.3 ppm

Comments: chemical inventory

Acetone, IPA



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-7

Canister ID 2680

Sampler K.Tyll

Canister Volume 6 liter

Location Reel Dock / Clean Room

Flow Controller ID 01619

Height 4M ~~25~~ 6'

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:48	- 29.23
Final Canister Vacuum	2/27/20	15:48	- 5.88

Weather or Ambient Conditions: _____

PID at Location: 0.6 ppm

Comments: chemical inventory Acetone + IPA drums



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - West Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-8

Canister ID 2987

Sampler K.Tyll

Canister Volume 6 liter

Location Hot loop

Flow Controller ID 01706

Height table \approx 5' to top

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:44	-29.09
Final Canister Vacuum	2/27/20	15:44	-6.2

Weather or Ambient Conditions: _____

PID at Location: 0.1 ppm

Comments: chemical inventory

Zep cleaners, IPA acetone

HCl tank, Caustic Tank in vaults

#12 200 gal 200 gal #13



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - East Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-9

Canister ID 2933

Sampler K.Tyll

Canister Volume 6 liter

Location Training Area

Flow Controller ID 01791

Height 4'

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	722	-29.28
Final Canister Vacuum	2/27/20	1522	-4.94

Weather or Ambient Conditions: _____

PID at Location: 0.2 ppb

Comments: chemical inventory

Acetone bottle, latex paint, spackle

windex, coolant spray bottle



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - East Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-10

Canister ID 902

Sampler K. Tyll

Canister Volume 6 liter

Location Drum Storage Area

Flow Controller ID 01825

Height ground

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM	St 0.15
Initial Canister Vacuum	2/27/20	7:30	-30.04	
Final Canister Vacuum	2/27/20	15:34	-6.04	

Weather or Ambient Conditions: _____

PID at Location: ~~0.00~~ 1.5 ppb

Comments: chemical inventory

Windex, Hoot 795, acetone + IPA squirt bottles

Floor cleaner, Aeon 900 syn coolant, Armatheen cleaner

Mxster Stages Clean 2017 spray cleaner

169 Commack Road, Suite H173 - Commack, NY 11725 - 631-629-5373 www.tyllengineering.com

Mobil grease mobil 15W-50 oil



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - East Building

Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-11

Canister ID 2284

Sampler K.Tyll

Canister Volume 6 liter

Location East Shop Main aisle

Flow Controller ID 0724

Height ground

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor)

indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:26	-29.47
Final Canister Vacuum	2/27/20	15:26	-6.14

Weather or Ambient Conditions: _____

PID at Location: 0.0 ppb

Comments: chemical inventory

Acetone / cleaners

~~sub-slab, soil gas, amb, indoor~~

#12 (wire pulling lubricant concrete patch PVC cement, raid
PVC mixed gas/oil mixture PVC primer)



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 2/27/2020

Project: Curtis-Wright Indoor Air - East Building
Site Location: 1966 E Broadhollow Road East Farmingdale, New York

Sample ID CW-IA-12 Canister ID 1642
Sampler K.Tyll Canister Volume 6 liter
Location ~~Room~~ E1 Shelf Inspection Area Flow Controller ID 01633
Height 6' on shelf Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) indoor air

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	2/27/20	7:27	-29.44
Final Canister Vacuum	2/27/20	15:29	-1.08

Weather or Ambient Conditions: _____

PID at Location: _____

Comments: chemical inventory

cleaners, raid, wire pulling lubricant, concrete patch ready mix,
Pre-mixed gas/oil mixture, PVC cement, primer, + cleaner, pipe dope
acetone

ATTACHMENT 2

Photographs from Sampling Event



Photo #1 - CW-IA-1 located in the Laboratory Area at the southeastern corner of the building by the Parking Lot.



Photo #2 - CW-IA-2 located adjacent to the main aisle outside of the New Torque area.



Photo #3 - CW-IA-3 located adjacent to the main aisle of the HOG area.



Photo #4 - CW-IA-4 located adjacent to the main aisle outside of the (western) Stockroom door/gate.



Photo #5 - CW-IA-5 located adjacent to SS-1 in the Welding Shop at the Northwestern corner of the building.

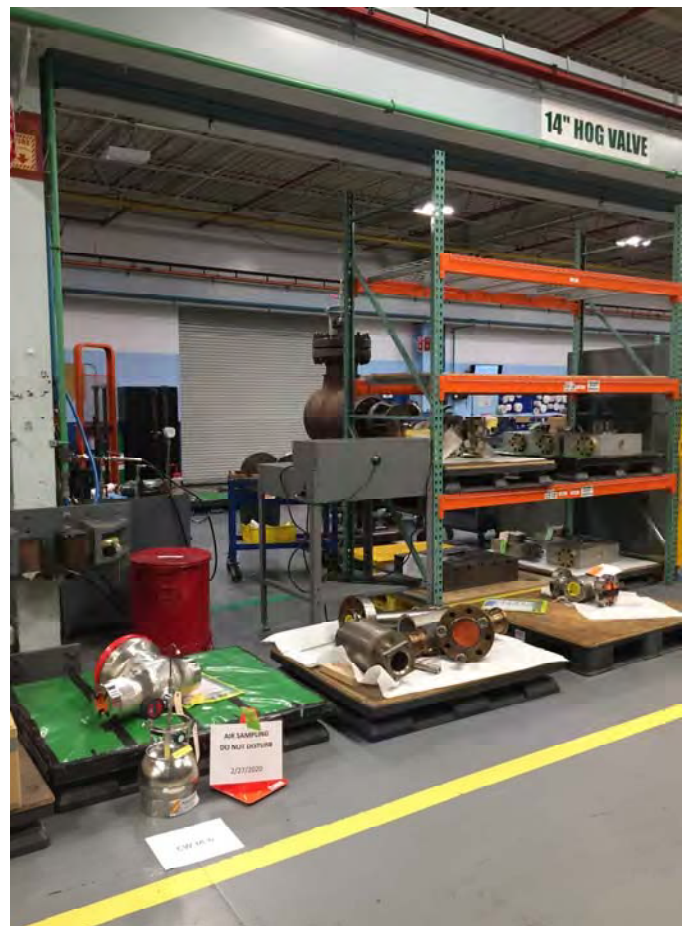


Photo #6 - CW-IA-6 located in the Center of the AT shop area adjacent to the main walkway.



Photo #7 - CW-IA-7 located in the Rear Dock Area adjacent to the Clean Room.

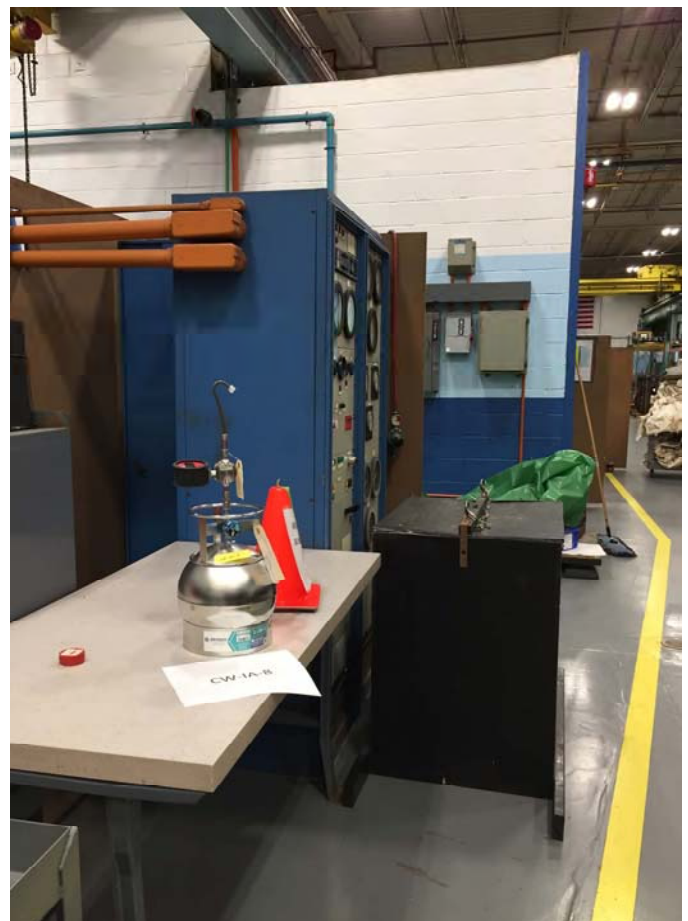


Photo #8 - CW-IA-8 was located in the Hot Loop Area adjacent to a 200-gallon Hydrochloric Acid Tank #12 and a 200-gallon Caustic Tank #13.



Photo #9 - CW-IA-9 located in the Training Area

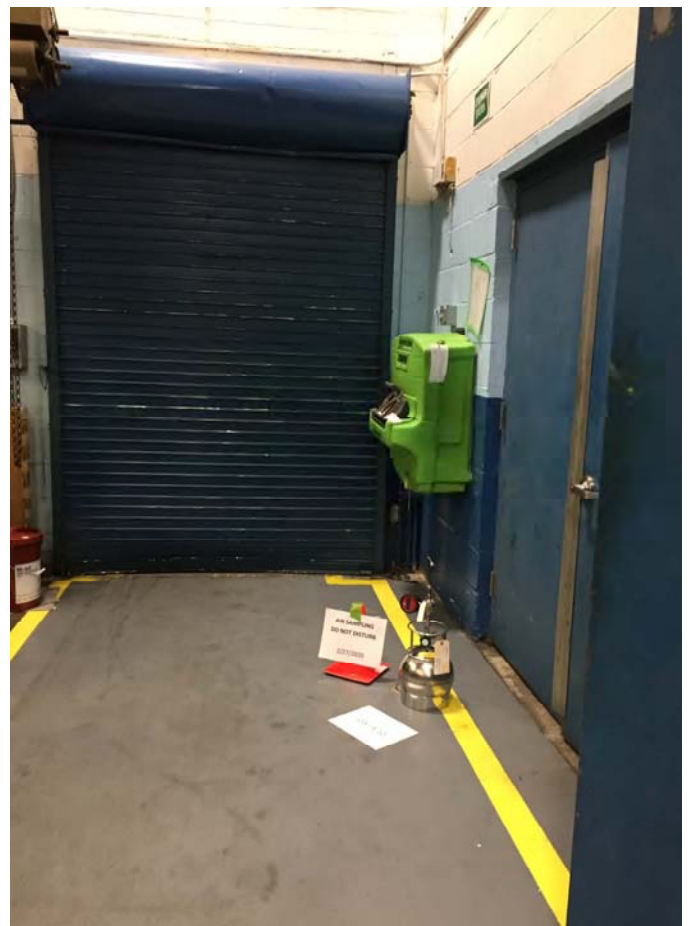


Photo #10 - CW-IA-10 located adjacent to the Compressor Room and Drum Storage Room.

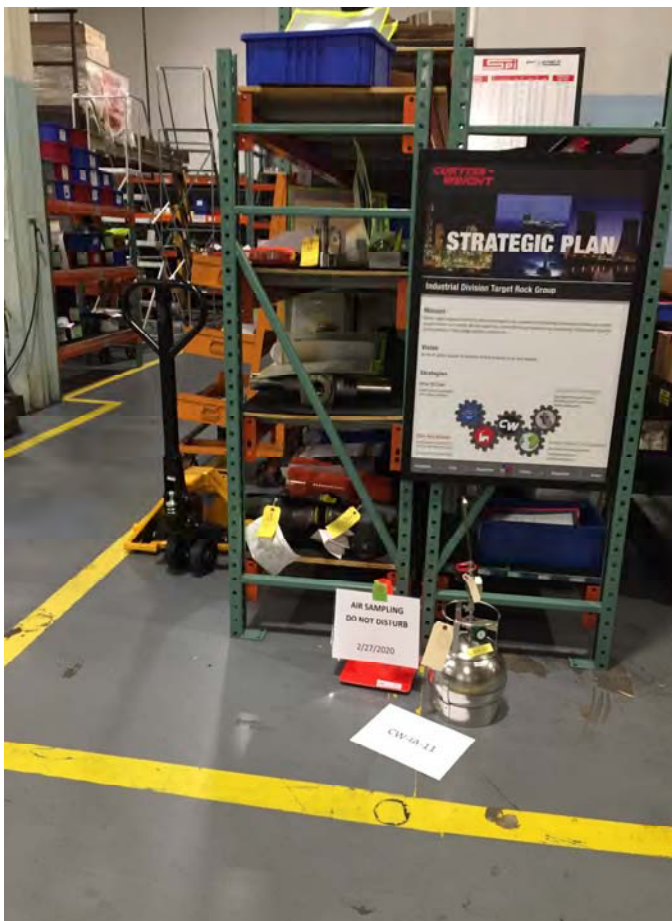


Photo #11 - CW-IA-11 located in the main aisle of the East Shop.

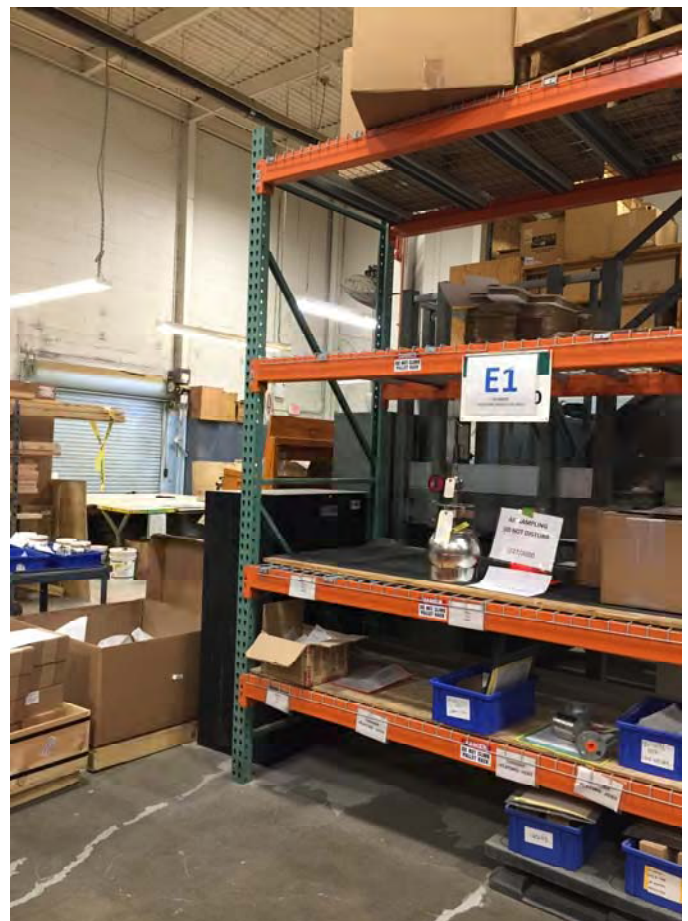


Photo #12 - CW-IA-12 located on the Rack in the E1 Inspection area adjacent to the Facilities Offices.

ATTACHMENT 3

Laboratory Analytical Data Package



ANALYTICAL REPORT

Lab Number:	L2008847
Client:	Tyll Engineering and Consulting PC 169 Commack Road Suite H173 Commack, NY 11725
ATTN:	Karen Tyll
Phone:	(631) 664-6477
Project Name:	C-W
Project Number:	Not Specified
Report Date:	03/06/20

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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2008847-01	CW-IA-1	AIR	1966 E BROADHOLLOW ROAD	02/27/20 16:07	02/27/20
L2008847-02	CW-IA-2	AIR	1966 E BROADHOLLOW ROAD	02/27/20 16:04	02/27/20
L2008847-03	CW-IA-3	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:51	02/27/20
L2008847-04	CW-IA-4	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:56	02/27/20
L2008847-05	CW-IA-5	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:59	02/27/20
L2008847-06	CW-IA-6	AIR	1966 E BROADHOLLOW ROAD	02/27/20 16:11	02/27/20
L2008847-07	CW-IA-7	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:48	02/27/20
L2008847-08	CW-IA-8	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:44	02/27/20
L2008847-09	CW-IA-9	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:22	02/27/20
L2008847-10	CW-IA-10	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:34	02/27/20
L2008847-11	CW-IA-11	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:26	02/27/20
L2008847-12	CW-IA-12	AIR	1966 E BROADHOLLOW ROAD	02/27/20 15:29	02/27/20

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 26, 2020. The canister certification results are provided as an addendum.

L2008847-01-07: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2008847-10: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1347232-3 LCS recovery for 3-chloropropene (135%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

WG1347232-5: The relative percent difference for trichlorofluoromethane (28%) is above the RPD limit of 25%. This compound represented less than 10% of the compounds detected, therefore no further action was taken.

The WG1347708-3 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: 03/06/20

AIR

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-01
 Client ID: CW-IA-1
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:07
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 18:44
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.459	0.200	--	2.27	0.989	--		1
Chloromethane	0.641	0.200	--	1.32	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	87.9	5.00	--	166	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2330	1.00	--	5530	2.38	--	E	1
Trichlorofluoromethane	1.58	0.200	--	8.88	1.12	--		1
Isopropanol	492	0.500	--	1210	1.23	--	E	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	0.807	0.500	--	2.38	1.47	--		1
Ethyl Acetate	0.557	0.500	--	2.01	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-01
 Client ID: CW-IA-1
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:07
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.229	0.200	--	0.732	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	0.333	0.200	--	1.25	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	0.543	0.400	--	2.36	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-01
 Client ID: CW-IA-1
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:07
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	18.8	0.200	--	113	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	109		60-140
Bromochloromethane	111		60-140
chlorobenzene-d5	109		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-01
 Client ID: CW-IA-1
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:07
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 18:44
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.064	0.020	--	0.403	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.077	0.020	--	0.522	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	108		60-140
bromochloromethane	109		60-140
chlorobenzene-d5	109		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-01 D
 Client ID: CW-IA-1
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:07
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 05:51
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	4990	36.1	--	11900	85.8	--		36.13
Isopropanol	631	18.1	--	1550	44.5	--		36.13

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	92		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-02
 Client ID: CW-IA-2
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:04
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 19:23
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.458	0.200	--	2.26	0.989	--		1
Chloromethane	0.539	0.200	--	1.11	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	86.1	5.00	--	162	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	877	1.00	--	2080	2.38	--	E	1
Trichlorofluoromethane	1.25	0.200	--	7.02	1.12	--		1
Isopropanol	666	0.500	--	1640	1.23	--	E	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	16.6	0.500	--	49.0	1.47	--		1
Ethyl Acetate	1.18	0.500	--	4.25	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-02
 Client ID: CW-IA-2
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:04
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.219	0.200	--	0.700	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	2.04	0.200	--	9.53	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	0.292	0.200	--	1.10	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	0.294	0.200	--	1.28	0.869	--		1
p/m-Xylene	1.27	0.400	--	5.52	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	0.397	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



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-02
 Client ID: CW-IA-2
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:04
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.292	0.200	--	1.44	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	11.9	0.200	--	71.5	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	100		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	102		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-02
 Client ID: CW-IA-2
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:04
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 19:23
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.091	0.020	--	0.572	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.072	0.020	--	0.488	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	101		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-02 D
 Client ID: CW-IA-2
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:04
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 06:27
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	1010	10.0	--	2400	23.8	--		10
Isopropanol	741	5.00	--	1820	12.3	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	85		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-03
 Client ID: CW-IA-3
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:51
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 20:03
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.456	0.200	--	2.25	0.989	--		1
Chloromethane	0.527	0.200	--	1.09	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	48.6	5.00	--	91.6	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	843	1.00	--	2000	2.38	--	E	1
Trichlorofluoromethane	1.23	0.200	--	6.91	1.12	--		1
Isopropanol	424	0.500	--	1040	1.23	--	E	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	6.50	0.500	--	19.2	1.47	--		1
Ethyl Acetate	1.13	0.500	--	4.07	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-03
 Client ID: CW-IA-3
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:51
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.228	0.200	--	0.728	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	0.440	0.200	--	2.06	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	0.254	0.200	--	0.957	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	0.293	0.200	--	1.27	0.869	--		1
p/m-Xylene	1.22	0.400	--	5.30	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	0.381	0.200	--	1.65	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-03
 Client ID: CW-IA-3
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:51
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.271	0.200	--	1.33	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	8.28	0.200	--	49.8	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	103		60-140
chlorobenzene-d5	101		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-03
 Client ID: CW-IA-3
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:51
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 20:03
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.086	0.020	--	0.541	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.070	0.020	--	0.475	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	101		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-03 D
 Client ID: CW-IA-3
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:51
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 07:03
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	981	5.00	--	2330	11.9	--		5
Isopropanol	432	2.50	--	1060	6.15	--		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-04
 Client ID: CW-IA-4
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:56
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 21:22
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.466	0.200	--	2.30	0.989	--		1
Chloromethane	0.556	0.200	--	1.15	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	63.8	5.00	--	120	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	714	1.00	--	1700	2.38	--	E	1
Trichlorofluoromethane	0.752	0.200	--	4.23	1.12	--		1
Isopropanol	413	0.500	--	1020	1.23	--	E	1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.867	0.500	--	3.01	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	6.16	0.500	--	18.2	1.47	--		1
Ethyl Acetate	0.943	0.500	--	3.40	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-04
 Client ID: CW-IA-4
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:56
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.215	0.200	--	0.687	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	0.505	0.200	--	2.36	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	0.302	0.200	--	1.14	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
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.244	0.200	--	1.06	0.869	--		1
p/m-Xylene	1.06	0.400	--	4.60	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	0.333	0.200	--	1.45	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-04
 Client ID: CW-IA-4
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:56
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.221	0.200	--	1.09	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	7.38	0.200	--	44.4	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	104		60-140
chlorobenzene-d5	103		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-04
 Client ID: CW-IA-4
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:56
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 21:22
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.072	0.020	--	0.453	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.065	0.020	--	0.441	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	102		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-04 D
 Client ID: CW-IA-4
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:56
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 07:40
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	800	4.17	--	1900	9.91	--		4.167
Isopropanol	437	2.08	--	1070	5.11	--		4.167

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-05
 Client ID: CW-IA-5
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:59
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 22:02
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.462	0.200	--	2.28	0.989	--		1
Chloromethane	0.563	0.200	--	1.16	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	68.8	5.00	--	130	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1280	1.00	--	3040	2.38	--	E	1
Trichlorofluoromethane	0.838	0.200	--	4.71	1.12	--		1
Isopropanol	405	0.500	--	996	1.23	--	E	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	6.68	0.500	--	19.7	1.47	--		1
Ethyl Acetate	1.02	0.500	--	3.68	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-05
 Client ID: CW-IA-5
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:59
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.213	0.200	--	0.680	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	0.534	0.200	--	2.49	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	0.330	0.200	--	1.24	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	0.260	0.200	--	1.13	0.869	--		1
p/m-Xylene	1.11	0.400	--	4.82	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	0.355	0.200	--	1.54	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-05
 Client ID: CW-IA-5
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:59
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.209	0.200	--	1.03	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	7.54	0.200	--	45.3	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	100		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	101		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-05
 Client ID: CW-IA-5
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:59
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 22:02
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.021	0.020	--	0.115	0.109	--		1
Carbon tetrachloride	0.090	0.020	--	0.566	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.096	0.020	--	0.651	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-05 D
 Client ID: CW-IA-5
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:59
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 08:17
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	1540	7.14	--	3660	17.0	--		7.143
Isopropanol	381	3.57	--	937	8.78	--		7.143

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-06
 Client ID: CW-IA-6
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:11
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 22:41
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.541	0.200	--	2.68	0.989	--		1
Chloromethane	0.593	0.200	--	1.22	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	81.0	5.00	--	153	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1150	1.00	--	2730	2.38	--	E	1
Trichlorofluoromethane	1.30	0.200	--	7.31	1.12	--		1
Isopropanol	336	0.500	--	826	1.23	--	E	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	3.81	0.500	--	11.2	1.47	--		1
Ethyl Acetate	1.66	0.500	--	5.98	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-06
 Client ID: CW-IA-6
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:11
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.277	0.200	--	0.885	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	0.240	0.200	--	1.12	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	0.262	0.200	--	0.987	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	0.448	0.200	--	1.95	0.869	--		1
p/m-Xylene	1.98	0.400	--	8.60	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	0.625	0.200	--	2.71	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-06
 Client ID: CW-IA-6
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:11
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.284	0.200	--	1.40	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	14.2	0.200	--	85.4	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	108		60-140
chlorobenzene-d5	107		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-06
 Client ID: CW-IA-6
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:11
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 22:41
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.083	0.020	--	0.522	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.081	0.020	--	0.549	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	105		60-140
bromochloromethane	106		60-140
chlorobenzene-d5	106		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-06 D
 Client ID: CW-IA-6
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 16:11
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 09:42
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	1330	6.25	--	3160	14.8	--		6.25
Isopropanol	296	3.12	--	728	7.67	--		6.25

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	89		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-07
 Client ID: CW-IA-7
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:48
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/04/20 23:21
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.565	0.200	--	2.79	0.989	--		1
Chloromethane	0.634	0.200	--	1.31	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	54.2	5.00	--	102	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	819	1.00	--	1950	2.38	--	E	1
Trichlorofluoromethane	1.13	0.200	--	6.35	1.12	--		1
Isopropanol	359	0.500	--	882	1.23	--	E	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	0.894	0.200	--	2.78	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	7.18	0.500	--	21.2	1.47	--		1
Ethyl Acetate	1.15	0.500	--	4.14	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-07
 Client ID: CW-IA-7
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:48
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.223	0.200	--	0.712	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	0.701	0.200	--	3.27	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	0.243	0.200	--	0.916	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	0.292	0.200	--	1.27	0.869	--		1
p/m-Xylene	1.25	0.400	--	5.43	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	0.378	0.200	--	1.64	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-07
 Client ID: CW-IA-7
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:48
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.263	0.200	--	1.29	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	8.32	0.200	--	50.0	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	112		60-140
Bromochloromethane	116		60-140
chlorobenzene-d5	113		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-07
 Client ID: CW-IA-7
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:48
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/04/20 23:21
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.101	0.020	--	0.635	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.063	0.020	--	0.427	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	112		60-140
bromochloromethane	115		60-140
chlorobenzene-d5	114		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-07 D
 Client ID: CW-IA-7
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:48
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 10:18
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	893	3.57	--	2120	8.48	--		3.571
Isopropanol	354	1.78	--	870	4.38	--		3.571

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	83		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-08
 Client ID: CW-IA-8
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:44
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/05/20 00:01
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.475	0.200	--	2.35	0.989	--		1
Chloromethane	0.581	0.200	--	1.20	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	31.6	5.00	--	59.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	347	1.00	--	824	2.38	--		1
Trichlorofluoromethane	0.972	0.200	--	5.46	1.12	--		1
Isopropanol	122	0.500	--	300	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	1.35	0.500	--	3.98	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-08
 Client ID: CW-IA-8
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:44
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.287	0.200	--	0.917	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	0.226	0.200	--	0.852	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	1.07	0.200	--	4.65	0.869	--		1
p/m-Xylene	4.72	0.400	--	20.5	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	1.51	0.200	--	6.56	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-08
 Client ID: CW-IA-8
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:44
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	2.49	0.200	--	15.0	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	100		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	101		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-08
 Client ID: CW-IA-8
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:44
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/05/20 00:01
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.063	0.020	--	0.396	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.088	0.020	--	0.597	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	100		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-09
 Client ID: CW-IA-9
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:22
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/05/20 00:41
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.545	0.200	--	2.69	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	128	5.00	--	241	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	314	1.00	--	746	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	39.6	0.500	--	97.3	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	1.14	0.500	--	3.36	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-09
 Client ID: CW-IA-9
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:22
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.259	0.200	--	0.827	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	0.364	0.200	--	1.37	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	0.358	0.200	--	1.55	0.869	--		1
p/m-Xylene	1.27	0.400	--	5.52	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	0.592	0.200	--	2.57	0.869	--		1
4-Ethyltoluene	0.365	0.200	--	1.79	0.983	--		1
1,3,5-Trimethylbenzene	0.470	0.200	--	2.31	0.983	--		1



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-09
 Client ID: CW-IA-9
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:22
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	1.55	0.200	--	7.62	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	0.556	0.200	--	3.34	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	108		60-140
Bromochloromethane	109		60-140
chlorobenzene-d5	111		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-09
 Client ID: CW-IA-9
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:22
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/05/20 00:41
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.293	0.020	--	1.60	0.109	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.043	0.020	--	0.292	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	108		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	110		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-10
 Client ID: CW-IA-10
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:34
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/05/20 01:20
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.440	0.200	--	2.18	0.989	--		1
Chloromethane	0.528	0.200	--	1.09	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	25.9	5.00	--	48.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1040	1.00	--	2470	2.38	--	E	1
Trichlorofluoromethane	0.244	0.200	--	1.37	1.12	--		1
Isopropanol	51.8	0.500	--	127	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-10
 Client ID: CW-IA-10
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:34
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.319	0.200	--	1.02	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	0.318	0.200	--	1.20	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
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-10
 Client ID: CW-IA-10
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:34
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.399	0.200	--	1.96	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	0.651	0.200	--	3.91	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	106		60-140
chlorobenzene-d5	104		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-10
 Client ID: CW-IA-10
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:34
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/05/20 01:20
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.053	0.020	--	0.289	0.109	--		1
Carbon tetrachloride	0.063	0.020	--	0.396	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.069	0.020	--	0.468	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	105		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	103		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-10 D
 Client ID: CW-IA-10
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:34
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/06/20 09:14
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Acetone	1440	5.00	--	3420	11.9	--		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-11
 Client ID: CW-IA-11
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:26
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/05/20 02:00
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.437	0.200	--	2.16	0.989	--		1
Chloromethane	0.531	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	32.4	5.00	--	61.0	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	212	1.00	--	504	2.38	--		1
Trichlorofluoromethane	0.251	0.200	--	1.41	1.12	--		1
Isopropanol	51.4	0.500	--	126	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	0.601	0.200	--	2.38	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-11
 Client ID: CW-IA-11
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:26
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.442	0.200	--	1.41	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	0.329	0.200	--	1.24	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-11
 Client ID: CW-IA-11
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:26
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.274	0.200	--	1.35	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	1.10	0.200	--	6.61	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	100		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	100		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-11
 Client ID: CW-IA-11
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:26
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/05/20 02:00
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.073	0.020	--	0.459	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.035	0.020	--	0.237	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-12
 Client ID: CW-IA-12
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:29
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/05/20 02:40
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.448	0.200	--	2.22	0.989	--		1
Chloromethane	0.539	0.200	--	1.11	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	60.8	5.00	--	115	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	173	1.00	--	411	2.38	--		1
Trichlorofluoromethane	0.213	0.200	--	1.20	1.12	--		1
Isopropanol	30.5	0.500	--	75.0	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-12
 Client ID: CW-IA-12
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:29
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.434	0.200	--	1.39	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	0.329	0.200	--	1.24	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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-12
 Client ID: CW-IA-12
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:29
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2,4-Trimethylbenzene	0.271	0.200	--	1.33	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	0.416	0.200	--	2.50	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	105		60-140
chlorobenzene-d5	104		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

SAMPLE RESULTS

Lab ID: L2008847-12
 Client ID: CW-IA-12
 Sample Location: 1966 E BROADHOLLOW ROAD

Date Collected: 02/27/20 15:29
 Date Received: 02/27/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/05/20 02:40
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	0.063	0.020	--	0.396	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.037	0.020	--	0.251	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	103		60-140



Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/04/20 17:25

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-12 Batch: WG1347232-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/04/20 17:25

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-12 Batch: WG1347232-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/04/20 17:25

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-12 Batch: WG1347232-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/04/20 18:04

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-12 Batch: WG1347233-4								
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

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 15:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 10 Batch: WG1347708-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 15:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 10 Batch: WG1347708-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 15:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 10 Batch: WG1347708-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1347716-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1347716-4								
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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 03/05/20 14:56

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1347716-4								
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



Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347232-3								
Dichlorodifluoromethane	107		-		70-130	-		
Chloromethane	108		-		70-130	-		
Freon-114	124		-		70-130	-		
Vinyl chloride	110		-		70-130	-		
1,3-Butadiene	116		-		70-130	-		
Bromomethane	111		-		70-130	-		
Chloroethane	114		-		70-130	-		
Ethanol	77		-		40-160	-		
Vinyl bromide	105		-		70-130	-		
Acetone	102		-		40-160	-		
Trichlorofluoromethane	118		-		70-130	-		
Isopropanol	89		-		40-160	-		
1,1-Dichloroethene	115		-		70-130	-		
Tertiary butyl Alcohol	99		-		70-130	-		
Methylene chloride	98		-		70-130	-		
3-Chloropropene	135	Q	-		70-130	-		
Carbon disulfide	104		-		70-130	-		
Freon-113	107		-		70-130	-		
trans-1,2-Dichloroethene	110		-		70-130	-		
1,1-Dichloroethane	112		-		70-130	-		
Methyl tert butyl ether	105		-		70-130	-		
2-Butanone	116		-		70-130	-		
cis-1,2-Dichloroethene	115		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347232-3								
Ethyl Acetate	124		-		70-130	-		
Chloroform	114		-		70-130	-		
Tetrahydrofuran	118		-		70-130	-		
1,2-Dichloroethane	112		-		70-130	-		
n-Hexane	101		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
Benzene	95		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	100		-		70-130	-		
1,2-Dichloropropane	100		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	103		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	100		-		70-130	-		
4-Methyl-2-pentanone	106		-		70-130	-		
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	96		-		70-130	-		
Toluene	102		-		70-130	-		
2-Hexanone	114		-		70-130	-		
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347232-3								
Tetrachloroethene	108		-		70-130	-		
Chlorobenzene	111		-		70-130	-		
Ethylbenzene	103		-		70-130	-		
p/m-Xylene	106		-		70-130	-		
Bromoform	105		-		70-130	-		
Styrene	102		-		70-130	-		
1,1,2,2-Tetrachloroethane	115		-		70-130	-		
o-Xylene	104		-		70-130	-		
4-Ethyltoluene	100		-		70-130	-		
1,3,5-Trimethylbenzene	102		-		70-130	-		
1,2,4-Trimethylbenzene	104		-		70-130	-		
Benzyl chloride	104		-		70-130	-		
1,3-Dichlorobenzene	108		-		70-130	-		
1,4-Dichlorobenzene	108		-		70-130	-		
1,2-Dichlorobenzene	108		-		70-130	-		
1,2,4-Trichlorobenzene	120		-		70-130	-		
Hexachlorobutadiene	109		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-12 Batch: WG1347233-3								
Vinyl chloride	107		-		70-130	-		25
1,1-Dichloroethene	111		-		70-130	-		25
cis-1,2-Dichloroethene	109		-		70-130	-		25
1,1,1-Trichloroethane	88		-		70-130	-		25
Carbon tetrachloride	90		-		70-130	-		25
Trichloroethene	90		-		70-130	-		25
Tetrachloroethene	102		-		70-130	-		25

Lab Control Sample Analysis Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 10 Batch: WG1347708-3								
Dichlorodifluoromethane	98		-		70-130	-		
Chloromethane	98		-		70-130	-		
Freon-114	100		-		70-130	-		
Vinyl chloride	101		-		70-130	-		
1,3-Butadiene	100		-		70-130	-		
Bromomethane	101		-		70-130	-		
Chloroethane	96		-		70-130	-		
Ethanol	93		-		40-160	-		
Vinyl bromide	92		-		70-130	-		
Acetone	86		-		40-160	-		
Trichlorofluoromethane	111		-		70-130	-		
Isopropanol	98		-		40-160	-		
1,1-Dichloroethene	104		-		70-130	-		
Tertiary butyl Alcohol	96		-		70-130	-		
Methylene chloride	101		-		70-130	-		
3-Chloropropene	109		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
Freon-113	105		-		70-130	-		
trans-1,2-Dichloroethene	101		-		70-130	-		
1,1-Dichloroethane	104		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
2-Butanone	105		-		70-130	-		
cis-1,2-Dichloroethene	107		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 10 Batch: WG1347708-3								
Ethyl Acetate	112		-		70-130	-		
Chloroform	103		-		70-130	-		
Tetrahydrofuran	105		-		70-130	-		
1,2-Dichloroethane	100		-		70-130	-		
n-Hexane	102		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
Benzene	97		-		70-130	-		
Carbon tetrachloride	101		-		70-130	-		
Cyclohexane	102		-		70-130	-		
1,2-Dichloropropane	105		-		70-130	-		
Bromodichloromethane	101		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	104		-		70-130	-		
2,2,4-Trimethylpentane	101		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	105		-		70-130	-		
4-Methyl-2-pentanone	105		-		70-130	-		
trans-1,3-Dichloropropene	89		-		70-130	-		
1,1,2-Trichloroethane	106		-		70-130	-		
Toluene	103		-		70-130	-		
2-Hexanone	113		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 10 Batch: WG1347708-3								
Tetrachloroethene	103		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	106		-		70-130	-		
p/m-Xylene	105		-		70-130	-		
Bromoform	109		-		70-130	-		
Styrene	104		-		70-130	-		
1,1,2,2-Tetrachloroethane	112		-		70-130	-		
o-Xylene	108		-		70-130	-		
4-Ethyltoluene	103		-		70-130	-		
1,3,5-Trimethylbenzene	105		-		70-130	-		
1,2,4-Trimethylbenzene	110		-		70-130	-		
Benzyl chloride	115		-		70-130	-		
1,3-Dichlorobenzene	112		-		70-130	-		
1,4-Dichlorobenzene	111		-		70-130	-		
1,2-Dichlorobenzene	112		-		70-130	-		
1,2,4-Trichlorobenzene	132	Q	-		70-130	-		
Hexachlorobutadiene	121		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347716-3								
Dichlorodifluoromethane	81		-		70-130	-		
Chloromethane	85		-		70-130	-		
Freon-114	86		-		70-130	-		
Vinyl chloride	83		-		70-130	-		
1,3-Butadiene	87		-		70-130	-		
Bromomethane	86		-		70-130	-		
Chloroethane	76		-		70-130	-		
Ethanol	75		-		40-160	-		
Vinyl bromide	82		-		70-130	-		
Acetone	74		-		40-160	-		
Trichlorofluoromethane	82		-		70-130	-		
Isopropanol	76		-		40-160	-		
1,1-Dichloroethene	83		-		70-130	-		
Tertiary butyl Alcohol	72		-		70-130	-		
Methylene chloride	92		-		70-130	-		
3-Chloropropene	89		-		70-130	-		
Carbon disulfide	83		-		70-130	-		
Freon-113	89		-		70-130	-		
trans-1,2-Dichloroethene	78		-		70-130	-		
1,1-Dichloroethane	89		-		70-130	-		
Methyl tert butyl ether	87		-		70-130	-		
2-Butanone	100		-		70-130	-		
cis-1,2-Dichloroethene	88		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347716-3								
Ethyl Acetate	87		-		70-130	-		
Chloroform	95		-		70-130	-		
Tetrahydrofuran	92		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	86		-		70-130	-		
1,1,1-Trichloroethane	97		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	107		-		70-130	-		
Cyclohexane	87		-		70-130	-		
1,2-Dichloropropane	93		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	94		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	90		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	107		-		70-130	-		
trans-1,3-Dichloropropene	84		-		70-130	-		
1,1,2-Trichloroethane	100		-		70-130	-		
Toluene	106		-		70-130	-		
2-Hexanone	116		-		70-130	-		
Dibromochloromethane	124		-		70-130	-		
1,2-Dibromoethane	114		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: WG1347716-3								
Tetrachloroethene	111		-		70-130	-		
Chlorobenzene	115		-		70-130	-		
Ethylbenzene	112		-		70-130	-		
p/m-Xylene	112		-		70-130	-		
Bromoform	120		-		70-130	-		
Styrene	114		-		70-130	-		
1,1,2,2-Tetrachloroethane	119		-		70-130	-		
o-Xylene	117		-		70-130	-		
4-Ethyltoluene	116		-		70-130	-		
1,3,5-Trimethylbenzene	119		-		70-130	-		
1,2,4-Trimethylbenzene	120		-		70-130	-		
Benzyl chloride	98		-		70-130	-		
1,3-Dichlorobenzene	107		-		70-130	-		
1,4-Dichlorobenzene	95		-		70-130	-		
1,2-Dichlorobenzene	113		-		70-130	-		
1,2,4-Trichlorobenzene	60	Q	-		70-130	-		
Hexachlorobutadiene	122		-		70-130	-		

Lab Duplicate Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1347232-5 QC Sample: L2008847-03 Client ID: CW-IA-3						
Dichlorodifluoromethane	0.456	0.520	ppbV	13		25
Chloromethane	0.527	0.579	ppbV	9		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	48.6	50.6	ppbV	4		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	843E	909E	ppbV	8		25
Trichlorofluoromethane	1.23	0.930	ppbV	28	Q	25
Isopropanol	424E	446E	ppbV	5		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	6.50	6.59	ppbV	1		25
Ethyl Acetate	1.13	1.17	ppbV	3		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1347232-5 QC Sample: L2008847-03 Client ID: CW-IA-3						
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	0.228	0.232	ppbV	2		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	0.440	0.442	ppbV	0		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	0.254	0.261	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	0.293	0.289	ppbV	1		25

Lab Duplicate Analysis Batch Quality Control

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1347232-5 QC Sample: L2008847-03 Client ID: CW-IA-3						
p/m-Xylene	1.22	1.24	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	0.381	0.372	ppbV	2		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	0.271	0.276	ppbV	2		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	8.28	8.45	ppbV	2		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): 01-12 QC Batch ID: WG1347233-5 QC Sample: L2008847-03 Client ID: CW-IA-3						
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	0.086	0.090	ppbV	5		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.070	0.067	ppbV	4		25

Project Name: C-W

Serial_No:03062016:19
Lab Number: L2008847

Project Number:

Report Date: 03/06/20

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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2008847-01	CW-IA-1	01525	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.8	2
L2008847-01	CW-IA-1	590	6.0L Can	02/26/20	314755	L2007511-05	Pass	-29.0	-5.7	-	-	-	-
L2008847-02	CW-IA-2	01787	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.8	2
L2008847-02	CW-IA-2	2594	6.0L Can	02/26/20	314755	L2007768-01	Pass	-29.0	-6.1	-	-	-	-
L2008847-03	CW-IA-3	01591	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.7	3
L2008847-03	CW-IA-3	3285	6.0L Can	02/26/20	314755	L2007768-03	Pass	-29.1	-2.8	-	-	-	-
L2008847-04	CW-IA-4	01647	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.6	4
L2008847-04	CW-IA-4	642	6.0L Can	02/26/20	314755	L2007768-02	Pass	-29.5	-4.4	-	-	-	-
L2008847-05	CW-IA-5	0758	Flow 3	02/26/20	314755		-	-	-	Pass	10.0	9.8	2
L2008847-05	CW-IA-5	593	6.0L Can	02/26/20	314755	L2007768-03	Pass	-28.9	-5.1	-	-	-	-
L2008847-06	CW-IA-6	01774	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.9	1
L2008847-06	CW-IA-6	1652	6.0L Can	02/26/20	314755	L2007511-05	Pass	-29.0	-5.7	-	-	-	-
L2008847-07	CW-IA-7	01619	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	10.0	0
L2008847-07	CW-IA-7	2680	6.0L Can	02/26/20	314755	L2007768-03	Pass	-29.0	-5.1	-	-	-	-
L2008847-08	CW-IA-8	01706	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	10.1	1

Project Name: C-W

Serial_No:03062016:19
Lab Number: L2008847

Project Number:

Report Date: 03/06/20

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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2008847-08	CW-IA-8	2987	6.0L Can	02/26/20	314755	L2007511-05	Pass	-28.9	-5.8	-	-	-	-
L2008847-09	CW-IA-9	01791	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.7	3
L2008847-09	CW-IA-9	2933	6.0L Can	02/26/20	314755	L2007511-05	Pass	-28.9	-4.8	-	-	-	-
L2008847-10	CW-IA-10	01825	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	10.2	2
L2008847-10	CW-IA-10	902	6.0L Can	02/26/20	314755	L2007768-03	Pass	-29.0	-5.2	-	-	-	-
L2008847-11	CW-IA-11	0724	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	10.0	0
L2008847-11	CW-IA-11	2284	6.0L Can	02/26/20	314755	L2007768-01	Pass	-29.1	-5.4	-	-	-	-
L2008847-12	CW-IA-12	01633	Flow 4	02/26/20	314755		-	-	-	Pass	10.0	9.6	4
L2008847-12	CW-IA-12	1642	6.0L Can	02/26/20	314755	L2007768-01	Pass	-29.1	0.0	-	-	-	-

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

Lab Number: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/20/20 21:02
Analyst: GP

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



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

Lab Number: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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
Xylenes, total	ND	0.600	--	ND	0.869	--		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-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		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



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

Lab Number: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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
1,2,3-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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



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

Lab Number: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
 Client ID: CAN 783 SHELF 43
 Sample Location:

Date Collected: 02/19/20 16:00
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	78		60-140



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

Lab Number: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/20/20 21:02
Analyst: GP

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	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: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-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: L2007511
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007511-05
Client ID: CAN 783 SHELF 43
Sample Location:

Date Collected: 02/19/20 16:00
Date Received: 02/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	80		60-140
chlorobenzene-d5	77		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/22/20 17:54
Analyst: RY

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



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L2007768**Project Number:** CANISTER QC BAT**Report Date:** 03/06/20**Air Canister Certification Results**

Lab ID: L2007768-01

Date Collected: 02/20/20 16:00

Client ID: CAN 3152 SHELF 51

Date Received: 02/21/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	97		60-140
chlorobenzene-d5	91		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/22/20 17:54
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-01
Client ID: CAN 3152 SHELF 51
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	96		60-140
chlorobenzene-d5	92		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/22/20 18:32
Analyst: RY

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



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L2007768**Project Number:** CANISTER QC BAT**Report Date:** 03/06/20**Air Canister Certification Results**

Lab ID: L2007768-02

Date Collected: 02/20/20 16:00

Client ID: CAN 920 SHELF 52

Date Received: 02/21/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	94		60-140
chlorobenzene-d5	92		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/22/20 18:32
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-02
Client ID: CAN 920 SHELF 52
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	93		60-140
chlorobenzene-d5	93		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/22/20 19:10
Analyst: RY

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



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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:** L2007768**Project Number:** CANISTER QC BAT**Report Date:** 03/06/20**Air Canister Certification Results**

Lab ID: L2007768-03

Date Collected: 02/20/20 16:00

Client ID: CAN 1640 SHELF 53

Date Received: 02/21/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	94		60-140
chlorobenzene-d5	93		60-140



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

Lab Number: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/22/20 19:10
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-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: L2007768
Report Date: 03/06/20

Air Canister Certification Results

Lab ID: L2007768-03
Client ID: CAN 1640 SHELF 53
Sample Location:

Date Collected: 02/20/20 16:00
Date Received: 02/21/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	93		60-140
chlorobenzene-d5	93		60-140



Project Name: C-W**Lab Number:** L2008847**Project Number:** Not Specified**Report Date:** 03/06/20**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(*)
L2008847-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2008847-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-03A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-04A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-05A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-06A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-07A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2008847-08A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2008847-09A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2008847-10A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2008847-11A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2008847-12A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

- 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: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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.

Project Name: C-W
Project Number: Not Specified

Lab Number: L2008847
Report Date: 03/06/20

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 16

Published Date: 2/17/2020 10:46:05 AM

Page 1 of 1

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, SM4500CI-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 OF					
CHAIN OF CUSTODY												Project Information					
<div style="display: flex; justify-content: space-between;"> <div> <p>320 Forbes Blvd, Mansfield, MA 02048 TEL: 508-822-9300 FAX: 508-822-3288</p> </div> <div> <p>Project Name: C-W</p> <p>Project Location: 1966 E Broadhollow Road</p> </div> </div>												Date Rec'd in Lab: 2/28/20		ALPHA Job #: L2008847			
												Report/Data Deliverables Information		Billing Information			
Client Information												<input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input checked="" type="checkbox"/> ADEx <input checked="" type="checkbox"/> Add'l Deliverables					
Client: Tyll Engineering and Consulting, PC Address: 169 Commack Road, Suite H 173 Commack, NY 11725 Phone: 631-664-6477 Fax: Email: karen@tyllengineering.com												Project #		PO #:			
												Project Manager: Karen Tyll					
Turn-Around-Time												<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (only confirmed if pre-approved)					
Date Due: _____ Time: _____												State/Fed _____ Program _____ Residential/Commercial _____					
<input type="checkbox"/> These samples have been Previously analyzed by Alpha Other Project Specific Requirements/Comments: <input type="checkbox"/> Project-Specific Target Compound List												Regulatory Requirements/Report Limits					
Analysis																	
All Columns Below Must Be Filled Out																	
Alpha Lab Use Only	Sample ID	Collection					Sample Matrix*	Sampler 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 Specific Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vac	Final Vac											
C2812-01	CW-IA-1	2/27/20	08:07	16:07	-29.36	-6.24	AA	KT	6 L	590	01525	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C2	CW-IA-2	2/27/20	08:04	16:04	-29.54	-6.54	AA	KT	6 L	2594	01787	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C3	CW-IA-3	2/27/20	07:50	16:51	-29.04	-3.78	AA	KT	6 L	3285	01591	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C4	CW-IA-4	2/27/20	07:56	15:56	-28.26	-5.40	AA	KT	6 L	642	01647	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C5	CW-IA-5	2/27/20	07:57	15:59	-29.53	-5.74	AA	KT	6 L	593	0756	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C6	CW-IA-6	2/27/20	08:10	16:11	-29.49	-6.32	AA	KT	6 L	1652	01774	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*SAMPLE MATRIX CODES: AA = Ambient Air (Indoor/Outdoor) SV = Soil Vapor/Landfill Gas/SVE Other = Please Specify												Container Type					
Relinquished By: Karen Tyll Date/Time: 2/27/20 4:32 pm												Received By: M.D. MGLR (A42)		Date/Time: 2-27-20 16:30			
Relinquished By: MGLR Date/Time: 2-27-20 1945												Received By: MGLR		Date/Time: 2/27/20 2100			
Relinquished By: MGLR Date/Time: 2/27/20 2100												Received By: MGLR		Date/Time: 2/28/20 0400			

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

AIR ANALYSIS

PAGE OF



CHAIN OF CUSTODY

Project Information

Project Name: C-W
 Project Location: 1966 E Broadhollow Road

Project #

Project Manager: Karen Tyll

ALPHA Quote #:

Turn-Around-Time

☒ Standard ☐ Rush (only confirmed if pre-approved)

Date Due: Time:

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

Client Information

Client: Tyll Engineering and Consulting, PC

Address: 169 Commack Road, Suite H 173

Commack, NY 11725

Phone: 631-664-6477

Fax:

Email: karen@tyllengineering.com

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments:

☐ Project-Specific Target Compound List

All Columns Below Must Be Filled Out

Alpha Lab Use Only	Sample ID	Collection					Sample Matrix*	Sampler 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 Specific Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vac	Final Vac											
07	CW-IA-7	2/27/20	07:48	15:48	-29.23	-5.38	AA	KT	6 L	2680	01619	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
08	CW-IA-8	2/27/20	07:44	15:44	-29.09	-6.26	AA	KT	6 L	2987	01706	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
09	CW-IA-9	2/27/20	07:22	15:22	-29.28	-4.94	AA	KT	6 L	2933	01791	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	CW-IA-10	2/27/20	7:30	15:34	-30.04	-6.04	AA	KT	6 L	902	01825	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	CW-IA-11	2/27/20	07:26	15:26	-29.47	-6.14	AA	KT	6 L	2284	0724	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	CW-IA-12	2/27/20	07:27	15:27	-29.44	-1.08	AA	KT	6 L	1642	01633	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*SAMPLE MATRIX CODES:

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other = Please Specify

Form 101-02 (1) Rev 25-Sep-15

Container Type

Relinquished By	Date/Time	Received By	Date/Time
Karen Tyll	2/27/20 4:32pm	MGR (CALL)	2/27/20 1:05
MGR	2/27/20 1:05		
	2/28/20 0400		

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Date Rec'd in Lab: 2/28/20

ALPHA Job #: L2008847

Report/Data Deliverables Information

☐ FAX ☐ EMAIL
☒ ADEx ☒ Add'l Deliverables

Billing Information

☐ Same as Client info ☐ PO #

Regulatory Requirements/Report Limits

State/Fed Program Residential/Commercial

Analysis

Appendix EE

Well Abandonment Report

August 26, 2021



175 Commerce Drive, Suite P, Hauppauge NY 11788
T (631) 901-1888 / F (631) 901-1889
www.pgenviro.com

August 26, 2021

Mr. Thomas Gianni
Facility and Safety Manager
1966 E Broadhollow Road
East Farmingdale, NY 11735

Re: Well Abandonment Services
1966 Broadhollow Road, East Farmingdale NY

Dear Mr. Gianni:

PG Environmental Services, Inc. (PGES) has performed contacting services involving the abandonment of seven (7) monitoring wells at the subject site.

SITE DESCRIPTION

The Site consist of an irregular shaped lot and is approximately 344,000 square feet. The subject site is currently a 1-story commercial building with a parking lot.

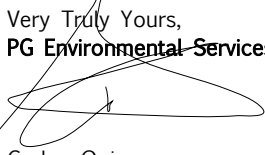
WELL ABANDONMENT

The wells were abandoned following protocols from NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy. PGES utilized our Geoprobe grout injection unit GP-300 to properly abandoned six (6) monitoring wells of the projected seven (7). One of the wells TRMW-4 was not located. PGES attempted locating the metal cover with a magnetometer along with picks, but it was unsuccessful. The six (6) wells ranged in depth between 20 and 30 feet below grade. **Appendix A** provide a site plan with monitoring well locations.

Initially, the wells were accessed atop to inspect their integrity with the manhole covers removed. The grout pump was then utilized by mixing Cetco Bentonite grouting gel and pump into the wells from the bottom to the surface. The top of each monitoring well was finished at grade with cement for proper seal. **Appendix B** provide pictures of the fieldwork.

We appreciate the opportunity to provide you with our services and hope the information presented above has proven valuable to this phase of your project. Please do not hesitate to contact us at your convenience.

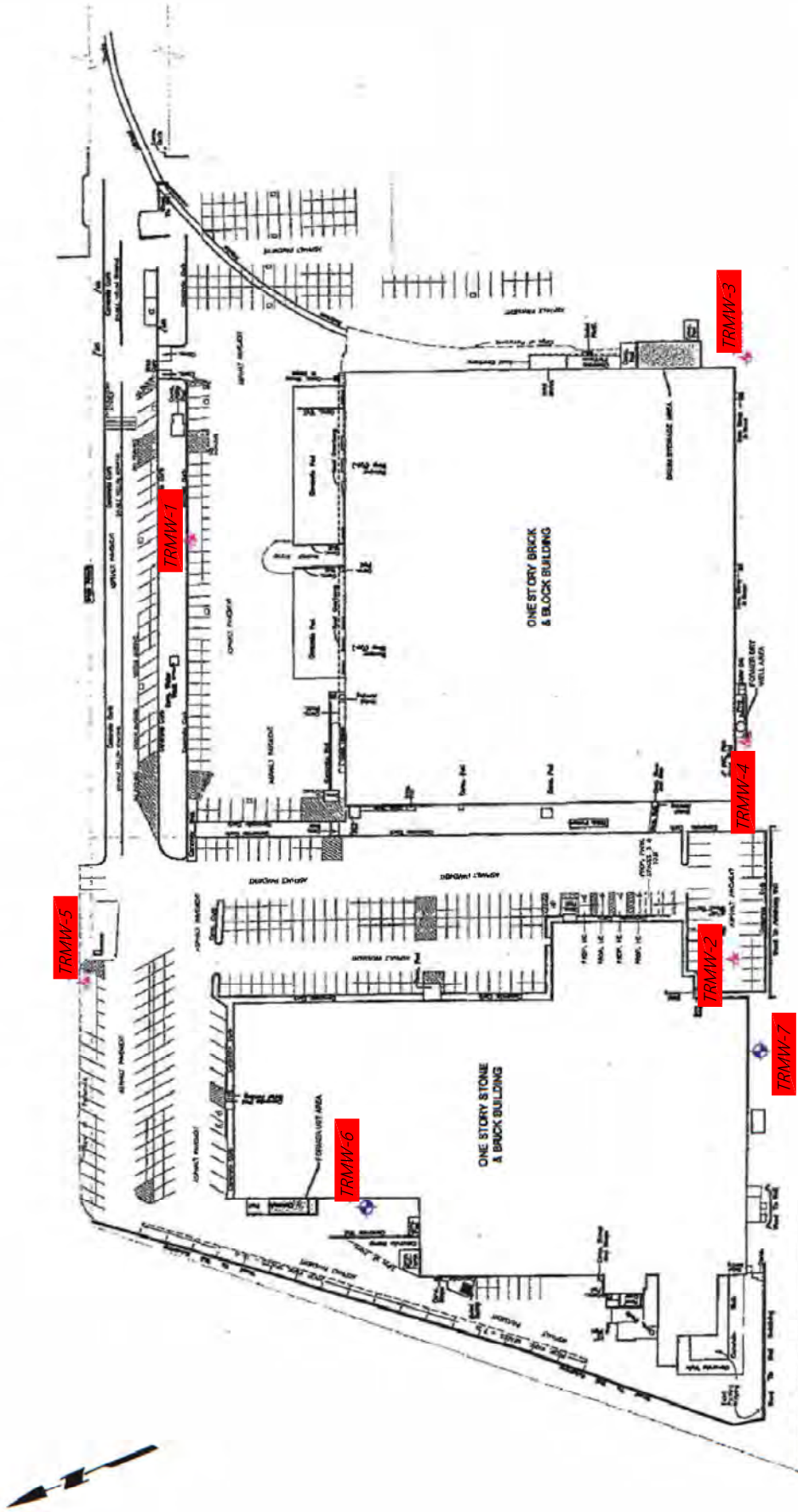
Very Truly Yours,
PG Environmental Services, Inc.


Carlos Quinonez
Vice President of Operations

CQ/bq
Encl.

Cc: PGES File 11578 w/Encs.

Appendix A



LEGEND:

- TRMW-1 EXISTING MONITORING WELL LOCATIONS
- TRMW-6 MAY 2010 MONITORING WELL LOCATIONS

* BASE PLAN TAKEN FROM ARCADIS FIGURE 2, ENTITLED "GROUNDWATER FLOW DIRECTION AND AREAS OF CONCERN"



TARGET ROCK CORPORATION
GROUNDWATER MONITORING
WELL NETWORK

NEW YORK
EAST FARMINGDALE
Project No. _____
Scale _____
Date _____
Figure No. _____



PG Environmental Services, Inc.
OFFICE
175 COMMERCE DRIVE, UNIT P
HAUPPAUGE, NY 11788
631-901-1888
WWW.PGENVIRO.COM

TARGET ROCK CORPORATION
EAST FARMINGDALE, NY

Drawn By:	C.Q.
Reviewed By:	C.Q.
Approved By:	C.Q.
Date:	08/16/2021
Scale:	AS NOTED

TITLE:

FIGURE 1: SITE PLAN

Appendix B





























Appendix F

Site Photos

Inspection Photos

October 14, 2020



Inspection Photos

August 2, 2021
(after cracks were sealed)



