



Consulting  
Engineers and  
Scientists

**Periodic Review Report  
December 28, 2021 to April 28, 2023  
37-24 & 37-28 30th Street**

Borough of Queens  
Queens County, New York  
BCP Site No. C241214

**Prepared for:**

31<sup>st</sup> Avenue Associates, LLC  
1836 Gilford Avenue  
New Hyde Park, NY 11040

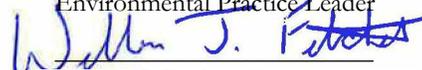
37-26 30<sup>th</sup> Street LLC  
1836 Gilford Avenue  
New Hyde Park, NY 11040

**Prepared by:**

GEI Consultants, Inc., P.C.  
1000 New York Ave, Suite B  
Huntington Station, NY 11746  
631-760-9300



  
Nicholas J. Recchia, P.G.  
Hydrogeologist/Senior  
Environmental Practice Leader

  
William J. Fitchett  
Project Manager

  
Gary Rozmus  
Senior Consultant

# Table of Contents

---

<b>Abbreviations, Acronyms, and Measurements</b>	<b>iii</b>
--	------------

---

<b>Periodic Review Report Certification Statement</b>	<b>iv</b>
---	-----------

---

<b>1. Introduction</b>	<b>1</b>
------------------------	----------

---

1.1	Background	1
1.2	Site Location and Description	1
1.3	Site Geology	2
1.4	Remaining Contamination	2
1.4.1	Soil	2
1.4.2	Groundwater	2
1.4.3	Soil Vapor	4
1.5	Remedial Action Objectives	4
1.5.1	Groundwater RAOs	4
1.5.2	Soil RAOs	4
1.5.3	Soil Vapor RAOs	4

<b>2. Institutional Control (IC) Plan Compliance</b>	<b>5</b>
--	----------

---

2.1	Institutional Controls	5
2.2	Engineering Controls	5
2.2.1	Monitoring Wells Associated with In-Situ Chemical Oxidation	5
2.2.2	Sub-Slab Depressurization System (SSDS)	6
2.3	IC/EC Certification	7

<b>3. Monitoring and Sampling Plan Compliance</b>	<b>8</b>
---	----------

---

3.1	Site-Wide Inspection	8
3.2	Groundwater Monitoring	9
3.3	Post Remedial Air Sampling	9
3.4	SSDS Pilot Test	10
3.5	SSDS Startup and OMM	11

<b>4. Conclusions</b>	<b>13</b>
-----------------------	-----------

---

<b>References</b>	<b>14</b>
-------------------	-----------

---

## Tables

---

1. Validated Indoor and Outdoor Air Analytical Results
2. Pilot Test Data
3. Effluent Data
4. SSDS Monitoring Results

## Figures

---

1. Site Location Map
2. Site Plan
3. Permanent Monitoring Well Locations
4. Post Remedial Air Sampling Locations and SSDS Monitoring Point Locations

## Appendices

---

- A. Institutional and Engineering Controls Certification Form
- B. Site-Wide Inspection Form
- C. NYSDEC Structure Sampling Questionnaire and Building Inventory
- D. Category B Indoor and Outdoor Air Laboratory Data Report
- E. Data Usability Summary Report
- F. Manufacturer's Specifications for SSDS Fans
- G. Pilot Test Logs
- H. Effluent Data Laboratory Analytical Reports
- I. Pilot Test Laboratory Analytical Results
- J. SSDS Monitoring Forms

WJF:ag

B:\StaffData\2700 Huntington Station NY\Environmental Projects\Park Construction\PRR\Report.C241214\_2023.07.18.docx

## Abbreviations, Acronyms, and Measurements

---

Acronym	Definition
µg/L	Micrograms per Liter
AWQS	Ambient Water Quality Standards and Guidance Values for GA groundwater
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
COC	Certificate of Completion
CQAP	Construction Quality Assurance Plan
DER-10	Technical Guidance for Site Investigation and Remediation
EWP	Excavation Work Plan
Ft. bgs	Feet Below Ground Surface
GEI	GEI Consultants, Inc., P.C.
ICs	Institutional Controls
Mg/Kg	Milligram per Kilogram
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PID	Photoionization Detector
PRR	Periodic Review Report
RA	Remedial Action
RAOs	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RRSCOs	Restricted Residential Soil Cleanup Objectives
SCGs	Standards, Criteria and Guidance
SF	Square Foot
SMP	Site Management Plan
SVI	Soil Vapor Intrusion
SVOC	Semi-volatile Organic Compound
URS	URS Corporation
USTs	Underground Storage Tanks
UUSCOs	Unrestricted Use Site Cleanup Objectives
VOC	Volatile Organic Compound

## Periodic Review Report Certification Statement

---

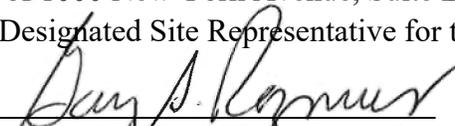
I, Gary A. Rozmus, certify that I am currently a NYS registered professional engineer and that this Periodic Review Report and all attachments were prepared under my direction. To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program, and generally accepted engineering practices; and that the information presented is accurate and complete.

For each institutional or engineering control identified for the Site, I certify that all the following statements are true:

- The institutional control employed at this site is unchanged from the date the control was put in place, or last approved by the Department.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan (SMP) for this control.
- 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.
- Use of the site is compliant with the environmental easement.
- The information presented in this report is accurate and complete.
- No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Gary A. Rozmus, of 1000 New York Avenue, Suite B, Huntington Station, New York, am certifying as Owner's Designated Site Representative for the site.

July 18, 2023  
Date

  
GEI Consultants, Inc., P.C.  
New York State Professional Engineer  
License Number 056744

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

# 1. Introduction

---

This Periodic Review Report (PRR) was prepared by GEI Consultants, Inc., P.C. (GEI), on behalf of 31<sup>st</sup> Avenue Associates, LLC and 37-26 30<sup>th</sup> Street LLC (Owner), to present the scope and results of the post-remediation monitoring activities and inspections conducted between December 28, 2021 and April 28, 2023, at the 37-24 & 37-28 30<sup>th</sup> Street Site (the Site) located in Queens, New York.

The monitoring activities and inspections were conducted to evaluate the on-going performance and effectiveness of the institutional controls (ICs) and engineering controls (ECs) at the Site and consisted of the following:

- Post Remedial Groundwater Sampling conducted in January 2022, August 2022, and November 2022.
- Annual Site-Wide inspection in November 2022.
- Sub-Slab Depressurization System (SSDS) Pilot Test conducted in January 2022.
- SSDS Full-Scale Startup conducted in November 2022.
- SSDS Operations, Maintenance and Monitoring (OMM) conducted in December 2022.
- Post Remedial Air Sampling conducted in December 2022.

The monitoring activities and periodic inspection for this reporting period were performed in accordance with the SMP, which was approved by the NYSDEC on December 28, 2021.

## 1.1 Background

31<sup>st</sup> Avenue Associates LLC and 37-26 30<sup>th</sup> Street LLC entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) on September 17, 2018 (Index No. C241214-08-13), to investigate and remediate a 0.368-acre property located at 37-24 through 37-28 30<sup>th</sup> Street in Long Island City, Queens County, New York. The property was remediated to unrestricted use (pending completion of the Conditional Track 1 remedy described in the Final Engineering Report (FER) and is currently used for restricted residential use.

## 1.2 Site Location and Description

The Site is located in Long Island City, Queens County, New York and is identified as Block 371 and Lots 33 and 34 on the New York City Tax Map (see Figure 1). The Site is an

approximately 0.368-acre area and is bounded by a two-story office building to the north, a vacant lot currently undergoing redevelopment to the south, 30 Street to the east, and Old Ridge Road to the west (see Figure 2, Site Plan). The owners of the site parcels at the time of issuance of this PRR is 37-26 30<sup>th</sup> Street LLC and 31<sup>st</sup> Avenue Associates.

### **1.3 Site Geology**

Based on the geotechnical report provided by GTA and the Remedial Investigation (RI) performed by GEI, the subsurface conditions consist of historic fill soils, glacial outwash sand deposits, and bedrock. A fill layer consisting of soils mixed with construction debris was identified Site-Wide extending to a depth of approximately 3-ft bgs. Native soils were present beneath the fill layer, consisting of fine to medium sand and silt with varying percentages of gravel, and occasional cobbles and boulders. Weathered bedrock was encountered at depths varying from approximately 47- to 74-ft bgs.

No evidence of perched water was observed during the RI. Based upon regional topography, groundwater was presumed to flow in a northwesterly direction toward the East River. Water level measurements collected during the RI indicated flow in a westerly direction. Groundwater levels measured in the monitoring wells located on-Site varied between approximately 26- to 29-ft bgs.

### **1.4 Remaining Contamination**

#### **1.4.1 Soil**

All confirmation end-point soil samples collected after completion of the remedial excavation were below Unrestricted Use Soil Cleanup Objectives (SCOs).

#### **1.4.2 Groundwater**

Groundwater samples were collected from the in-situ chemical oxidation (ISCO) monitoring network during the first and second quarters of 2021 to assess the effectiveness of the ISCO remedy, which was implemented in December 2020 and January 2021. The first quarter (Q1) samples were collected on March 25 and 29, 2021, approximately two months after the completion of the ISCO injection program. The second quarter (Q2) samples were collected on June 29, 2021. Low flow sampling methodology was used in accordance with the Construction Quality Assurance Plan (CQAP), included as an appendix to the Remedial Action Work Plan (RAWP).

In the Q1 2021 samples, exceedances of the ambient water quality standards (AWQS) were limited to the COC tetrachloroethene (PCE) and the following metals: chromium, iron, manganese, sodium, and mercury.

PCE concentrations exceeded the AWQS of 5 µg/L in all four wells. The maximum concentration (140 µg/L) occurred in MW-P1, located on the southeast (upgradient) side of the Site, a reduction from the pre-ISCO level of 220 µg/L. The concentration in MW-P3, located on the southwest (downgradient) side of the Site, decreased to 45 µg/L from 110 µg/L pre-ISCO. The concentrations in MW-P2 (31 µg/L) and MW-P4 (25 µg/L), located upgradient of the northeast Site boundary and downgradient of the northwest Site boundary, respectively, did not change significantly from their pre-ISCO levels. The presence of PCE in the two upgradient wells both before and after ISCO implementation indicate the possibility of an off-Site source of PCE contamination.

The metals exceedances were comparable to results from the previous quarter, with the exception of mercury, which was detected at 1.6 µg/L in MW-P3 (1.8 µg/L in the duplicate). The AWQS for mercury is 0.7 µg/L. Mercury was not detected in any groundwater monitoring wells in the previous quarter.

In the Q2 2021 samples, exceedances of the AWQS were limited to PCE and the following metals: chromium, copper, iron, lead, manganese, nickel, sodium, and mercury.

PCE concentrations exceeded the AWQS of 5 µg/L in all four wells but were lower than results from the previous quarter.

The highest PCE concentration (66 µg/L [72 µg/L in the duplicate]) occurred in MW-P1, located on the southeast (upgradient) side of the Site. Quarterly sampling results to date show a decreasing trend from the pre-ISCO level of 220 µg/L in this well.

The PCE concentration in MW-P3, located on the southwest (downgradient) side of the Site, was 27 µg/L. Quarterly sampling results to date show a decreasing trend from the pre-ISCO level of 110 µg/L.

PCE concentrations in MW-P2 and MW-P4, both located on the north side of the Site, showed little change between Q4 2020 (pre-ISCO) and Q1 2021 (post-ISCO), but the concentrations in both wells were lower in Q2 2021 than in the previous quarter. The Q2 2021 concentrations in MW-P2 and MW-P4 were 26 µg/L and 11 µg/L, respectively.

Metals concentrations were generally higher than in the previous two quarters, with exceedances of chromium, copper, lead, and nickel occurring for the first time since monitoring began. Iron and manganese exceedances recurred at concentrations higher than in the previous two quarters. Sodium exceedances recurred at concentrations lower than in the previous two quarters. Mercury, which historically had only been detected in MW-P3, decreased from 1.6 µg/L (1.8 µg/L in the duplicate) in Q1 2021 to 0.82 µg/L. The AWQS for mercury is 0.7 µg/L.

### **1.4.3 Soil Vapor**

An active SSDS has been constructed in each of the two on-Site buildings as part of redevelopment to mitigate the elevated levels of PCE and TCE in soil vapor detected in samples collected during the RI.

## **1.5 Remedial Action Objectives**

### **1.5.1 Groundwater RAOs**

RAOs for Public Health Protection

- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.
- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Remove the source of groundwater contamination.

### **1.5.2 Soil RAOs**

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.

### **1.5.3 Soil Vapor RAOs**

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion (SVI) into buildings at the Site.

## **2. Institutional Control (IC) Plan Compliance**

---

### **2.1 Institutional Controls**

Since remaining contamination is present at the Site, ICs are required to protect human health and the environment. Section 3 of the SMP contains the Institutional Control Plan for the Site. Adherence to the ICs on the Site is required by the Environmental Easement issued by NYSDEC on September 14, 2021, and recorded in the Office of the City Register of the City of New York on November 8, 2021.

The ICs required at the Site include:

- Require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and ECs in accordance with Part 375-1.8 (h)(3).
- Allow the use and development of the controlled property for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws.
- Restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOHMH.
- Require compliance with the Department approved SMP.

### **2.2 Engineering Controls**

#### **2.2.1 *Monitoring Wells Associated with In-Situ Chemical Oxidation***

A network of four monitoring wells was constructed to monitor the effectiveness of the ISCO remedy. The objective of this EC is to monitor groundwater quality until sample analytical results are below AWQS or asymptotic levels are reached.

The monitoring wells are located immediately outside the Site boundaries on the upgradient and downgradient sides. The upgradient wells are designated MW-P1 and MW-P2 and are located within the sidewalk along 30<sup>th</sup> Street. The downgradient wells are designated MW-P3 and MW-P4 and are located in a soil covered area within the alley known as Old Ridge Road. Figure 3 shows the location of the EC monitoring well network for the site.

All wells are screened at the water table, from 25- to 35-ft bgs. The screened interval is the same as the shallow temporary wells installed during the RI, in which most COC

exceedances were detected. It is also the interval where ISCO injections were applied. The wells are constructed of 2-inch diameter schedule 40 PVC with 0.020-inch slotted screen. Each well is capped with a J-plug and covered with a 5-inch diameter flush mounted steel manhole cover.

Quarterly groundwater monitoring of the well network commenced in December 2020 with collection of baseline samples prior to ISCO implementation. The ISCO Work Plan was implemented from December 2020 through January 2021. The first post-ISCO samples were collected in March 2021. Samples are collected quarterly from the monitoring well network as described in the Monitoring and Sampling Plan in Section 4.0 of the SMP.

Procedures for operating and maintaining the monitoring wells associated with ISCO are documented in the Operation and Maintenance Plan (Section 5.0 of the SMP).

### **2.2.2 Sub-Slab Depressurization System (SSDS)**

A SSDS was constructed in each of the two on-Site buildings during redevelopment. The purpose of the SSDS is to mitigate potential SVI by inducing a vacuum, i.e., negative pressure, below the building slabs.

The SSDS consists of the following components installed within each of the two newly constructed on-Site buildings: a network of perforated sub-slab piping, a vapor barrier, a riser pipe terminating at the roof, inline vapor mitigation fans, and a network of permanent vapor monitoring points. The SSDS, as designed, provides active depressurization, which can be made passive by the removing or shutting down of in-line vapor mitigation fans.

The permanent vapor monitoring points monitor SSDS performance by taking vacuum measurements with a digital manometer. The monitoring points may also be used to sample sub-slab soil vapor.

The sub-slab piping networks were designed to induce vacuum below all tenant storage spaces and mechanical rooms located in the cellars of both buildings. Figure 4 shows the area serviced by the SSDS and locations of vapor monitoring points. The network of on-site SVI sample locations has been designed based on the following criteria:

- Four permanent vapor monitoring points were installed in each building, throughout the area of the building serviced by the SSDS.
- All vapor monitoring points extend approximately 24-inches below the top of the cellar slab.

## **2.3 IC/EC Certification**

The ICs and ECs were certified as part of the annual Site-Wide Inspection required by Section 4.2 of the SMP. The inspection is described in Section 3.1 of this PRR. The IC/EC Certification Form is included as Appendix A.

## **3. Monitoring and Sampling Plan Compliance**

---

### **3.1 Site-Wide Inspection**

A Site-wide Inspection was performed on November 15, 2022, in accordance with Section 4.2 of the SMP. The purpose of the inspection is to determine and document the following:

- Compliance with all ICs including Site usage.
- General site conditions at the time of the inspection.
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection.
- If these controls continue to be protective of human health and the environment.
- Compliance with requirements of this SMP and the Environmental Easement.
- If Site records are complete and up to date.

Additionally, the Site-wide inspection conducted included remedial components installed at the site. A comprehensive site-wide inspection was conducted and documented according to the SMP schedule. The purpose of the inspection was to determine and document the following:

- Whether ECs continue to perform as designed.
- If these controls continue to be protective of human health and the environment.
- Compliance with requirements of this SMP and the Environmental Easement.
- Achievement of remedial performance criteria; and
- If site records are complete and up to date.

Minor deficiencies were noted including an alarm malfunction and the presence of exterior switches on the blowers. Both deficiencies were corrected. No intrusive construction activity which included soil disturbance was completed. As this is the first periodic review following issuance of the certificate of completion, there were, as of the date of the inspection, no previous Site records to review. A copy of the Site Inspection Form completed during the inspection for this reporting period is included in Appendix B.

## 3.2 Groundwater Monitoring

Remediation of Site groundwater using ISCO was a component of the NYSDEC-approved RAWP dated December 2020. The ISCO Work Plan, consisting of Site-wide injections of PersulfOx, that was implemented between December 2020 and January 2021. Pre-injection baseline sampling was conducted in December 2020, and the first post-injection sampling was conducted in March 2021. Results from these two sampling rounds were reported in the FER and summarized above in Section 1.4. Quarterly groundwater monitoring is required by the RAWP and the SMP.

Groundwater monitoring to assess the effectiveness of the ISCO remedy was performed during this reporting period in January 2022, August 2022, and November 2022. Low flow sampling methodology was used in accordance with the Quality Assurance Project Plan, included as an appendix to the SMP. Groundwater samples collected during this event were analyzed for Volatile Organic Compounds (VOCs). Groundwater Monitoring Reports were submitted to NYSDEC in April 2022, August 2022, and January 2023. PCE was the lone exceedance identified during the groundwater monitoring, with the exception of chloroform, which was identified in MW-P1 slightly above its AWQS in August 2022. Overall, sampling results to date show a decreasing trend from the pre-ISCO chlorinated solvent levels to the current levels. The monitoring well locations are shown on Figure 3.

## 3.3 Post Remedial Air Sampling

The Post Remedial Air Sampling was performed at the Site on December 13 and 14, 2022, and included the collection and laboratory analysis of 10 indoor air samples and one ambient outdoor air sample, as well as one duplicate air sample. The purpose of the post-remedial air sampling was to demonstrate the effectiveness of the SSDSs within the portions of the basement serviced by the systems, and to determine if VOCs identified prior to remediation at the site are present in indoor air in the parking garage portion of the basement which are not serviced by the SSDSs.

The indoor air and outdoor samples obtained were collected in 6-liter batch-certified SUMMA canisters connected to 24-hour flow controllers. The indoor air and outdoor air sampling were conducted concurrently. The collected samples were transported under chain-of-custody (COC) procedures to NYSDOH-approved Environmental Laboratory Accreditation Program (ELAP) Alpha Analytical Laboratories, Inc. for analysis by United States Environmental Protection Agency (USEPA) Method TO-15 for Chlorinated Volatile Organic Compounds (CVOCs).

The analytical results of the Post Remedial Air Sampling are presented in Table 1. Sample locations are shown on Figure 4. There were no detections of CVOCs in indoor air samples or outdoor air samples collected from the Site. A Structure Sampling Questionnaire and

Building Inventory Form was completed and included as Appendix C. The laboratory data package is included in Appendix D. The Category B Laboratory Data Reports were submitted to Environmental Data Services, Inc. of Palm Gardens, Florida for third party validation. The Data Usability Summary Report (DUSR) is attached as Appendix E.

Based on the results of the Post Remedial Air Sampling conducted at the Site GEI concludes the following:

- The CVOCs detected in soil vapor and groundwater during the RI conducted in 2019 were not detected in indoor air samples collected during this sampling event. Based upon these results, no further sampling is required, and the Site building is currently suitable for residential use.

### **3.4 SSDS Pilot Test**

A pilot test of the SSDS piping and vapor monitoring points was conducted on January 26, 2022, to complete the design of the SSDS and determine system performance criteria. The pilot test was scheduled in coordination with the construction schedule so that the SSDS will be installed and operational prior to building occupancy. The purpose of the pilot test was to determine the necessary fan power and speed required to induce the required vacuum at all eight vapor monitoring points, i.e., VMP-1 through VMP-8, and to determine whether any treatment of the vapor-phase effluent may be required prior to discharge.

The pilot test was performed by EnviroTrac Environmental Services, a subcontractor to GEI. The pilot test procedure consisted of connecting a portable blower to the SSDS piping where it penetrates the slab, taking vacuum measurements at all monitoring points at a range of blower speeds, and collecting an effluent vapor sample from each of the two buildings for analysis by EPA Method TO-15 at a NYSDEC ELAP certified laboratory. All vacuum measurements were made using a Dwyer Series 477AV handheld digital manometer or equivalent. The vapor stream velocity was measured at each pilot test blower speed using a TSI VelociCalc ventilation meter or equivalent inserted through a perforation in the hose/pipe connecting the blower to the sub-slab piping. Prior to pilot testing, all vapor monitoring points were seal checked using a helium leak test procedure to ensure the validity of vacuum measurements.

The in-line ventilation fans were operated at speeds sufficient to induce a continuous minimum vacuum of -0.02 inches H<sub>2</sub>O at all vapor monitoring points. The results of the pilot test indicated that the SSDS effluent does not need to be treated. Additionally, the results of the pilot test indicated that the HS2750 fan manufactured by RadonAway would provide sufficient vacuum in both buildings. The manufacturer's specifications for the RadonAway HS2750 fan is included as Appendix F. Pilot Test Logs are included as Appendix G.

Analytical Results from the Pilot Test are displayed on Table 2 and the Laboratory Report is included as Appendix H.

### 3.5 SSSD Startup and OMM

The initial full-scale startup of the SSSD occurred on November 16, 2022. The remedial systems monitoring requirements and schedule provided in the SMP specify routine monitoring of sub-slab vacuum to confirm SSSD performance and continuous automatic verification of system operation. It is anticipated that SSSD OMM will be conducted quarterly during the next reporting period.

The Remedial System Performance Criteria are summarized below and form the basis of the monitoring program:

Parameter	Typical Range
Fan Operation Frequency	Continuous
Sub-slab Monitoring Point Vacuum	0.02 inches of water column (minimum)

On December 13, 2022, SSSD OMM was performed. This OMM inspection included confirming the fan operation and proper vacuum measurements at sub-slab monitoring points, as well as collecting effluent air samples. Effluent data is displayed on Table 3 and the Laboratory Report is included as Appendix I. The monitoring results of the sub-slab monitoring points are provided in Table 4. During this monitoring round, vacuum at monitoring point MP-6 was measured lower than the required -0.02 inWC. The flow of the fan which services this MP was increased and GEI returned to the Site on December 14, 2023, to measure the vacuum in all of the monitoring points serviced by this fan. All monitoring points were found to have a vacuum of more than the required -0.02 inWC. Forms documenting the results of each monitoring event since system startup are presented in Appendix J. The basement monitoring point locations are provided on Figure 4.

Since the system startup in November 2022, monitoring of the SSSD has been performed in accordance with the requirements of the SMP and the monitoring results to date have confirmed satisfactory operation of the SSSD.

#### Routine Maintenance

No routine maintenance events occurred between the SSSD startup and the end of the reporting period.

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

### **Non-Routine Maintenance**

No non-routine maintenance events occurred between the SSDS startup and the end of the reporting period.

## 4. Conclusions

---

Based on the results of the monitoring and inspection reported herein, the Site is in compliance with the ICs, which remain effective in protecting human health and the environment. The Site continues to be used in a manner consistent with the Environmental Easement and in conformance with the requirements of the SMP.

In accordance with the SMP, the monitoring and inspections for the next reporting period (April 29, 2023, to April 28, 2024) will consist of the following:

- Quarterly Groundwater Monitoring
- Quarterly SSDS OMM
- Annual Site-wide inspection.

Additional Site-wide inspections will be performed within five days after any severe weather conditions.

## References

---

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

GEI Consultants, Inc., P.C., Remedial Investigation Work Plan January 2019.

GEI Consultants, Inc., P.C., Remedial Action Work Plan. December 2020.

GEI Consultants, Inc., P.C., Site Management Plan. December 2021.

GTA Engineering Services of New York, P.C., Geotechnical Exploration Report. November 2018.

NYSDEC DER-10 – “Technical Guidance for Site Investigation and Remediation”.

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

NYSDEC, 2022. Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC’s Part 375 Remedial Programs. April 2023.

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

# Tables

---

Table 1. Validated CVOCs in Indoor and Outdoor Air  
 30th Street Redevelopment Site  
 37-24 28 30th Street  
 Queens, NY 11101  
 NYSDEC BCP No. C241214

LOCATION SAMPLING DATE SAMPLE TYPE Parent Sample	Units	IA-1 12/14/2022 Indoor Air		IA-2 12/14/2022 Indoor Air		IA-3 12/14/2022 Indoor Air		IA-4 12/14/2022 Indoor Air		OA-1 12/14/2022 Outdoor Air		IA-5 12/14/2022 Indoor Air		IA-6 12/14/2022 Indoor Air		IA-7 12/14/2022 Indoor Air		IA-8 12/14/2022 Indoor Air		IA-9 12/14/2022 Indoor Air		IA-10 12/14/2022 Indoor Air		DUP121422 12/14/2022 Indoor Air IA-10					
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q		
<b>CVOCs</b>																													
Vinyl chloride	ug/m3	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U
1,1-Dichloroethene	ug/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
trans-1,2-Dichloroethene	ug/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
1,1-Dichloroethane	ug/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
cis-1,2-Dichloroethene	ug/m3	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
1,2-Dichloroethane	ug/m3	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,1,1-Trichloroethane	ug/m3	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
Trichloroethene	ug/m3	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U
Tetrachloroethene	ug/m3	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U	1.36	U

Notes

Q - Qualifier

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

ug/m3 - micrograms per cubic meter

Sample ID Sample Date Sample Type	Units	PT-1 1/26/2022 Vapor Extraction		PT-2 1/26/2022 Vapor Extraction	
		Result	Q	Result	Q
<b>VOCs</b>					
1,1,1,2-Tetrachloroethane	ug/m3	1.100	U	1.100	U
1,1,1-Trichloroethane	ug/m3	0.860	U	0.840	U
1,1,2,2-Tetrachloroethane	ug/m3	1.100	U	1.100	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ug/m3	1.200	U	1.200	U
1,1,2-Trichloroethane	ug/m3	0.860	U	0.840	U
1,1-Dichloroethane	ug/m3	0.640	U	0.620	U
1,1-Dichloroethylene	ug/m3	0.160	U	0.150	U
1,2,4-Trichlorobenzene	ug/m3	1.200	U	1.100	U
1,2,4-Trimethylbenzene	ug/m3	0.780	U	0.760	D
1,2-Dibromoethane	ug/m3	1.200	U	1.200	U
1,2-Dichlorobenzene	ug/m3	0.950	U	0.930	U
1,2-Dichloroethane	ug/m3	0.640	U	0.620	U
1,2-Dichloropropane	ug/m3	0.730	U	0.710	U
1,2-Dichlorotetrafluoroethane	ug/m3	1.100	U	1.100	U
1,3,5-Trimethylbenzene	ug/m3	0.780	U	0.760	U
1,3-Butadiene	ug/m3	2.100	D	1	J
1,3-Dichlorobenzene	ug/m3	0.950	U	0.930	U
1,3-Dichloropropane	ug/m3	0.730	U	0.710	U
1,4-Dichlorobenzene	ug/m3	0.950	U	0.930	U
1,4-Dioxane	ug/m3	1.100	U	1.100	U
2-Butanone	ug/m3	0.510	D	0.500	D
2-Hexanone	ug/m3	1.300	U	1.300	U
3-Chloropropene	ug/m3	2.500	U	2.400	U
4-Methyl-2-pentanone	ug/m3	3.300	D	0.630	U
Acetone	ug/m3	14	D	7.200	D
Acrylonitrile	ug/m3	0.340	U	0.330	U
Benzene	ug/m3	5.500	D	2.300	D
Benzyl chloride	ug/m3	0.820	U	0.800	U
Bromodichloromethane	ug/m3	1.100	U	1	U
Bromoform	ug/m3	1.600	U	1.600	U
Bromomethane	ug/m3	0.620	U	0.600	U
Carbon disulfide	ug/m3	0.490	U	0.480	U
Carbon tetrachloride	ug/m3	0.500	D	0.480	D
Chlorobenzene	ug/m3	0.730	U	0.710	U
Chloroethane	ug/m3	0.420	U	0.410	U
Chloroform	ug/m3	0.770	U	0.750	U
Chloromethane	ug/m3	1.100	D	1.100	D
cis-1,2-Dichloroethylene	ug/m3	0.160	U	0.150	U
cis-1,3-Dichloropropylene	ug/m3	0.720	U	0.700	U
Cyclohexane	ug/m3	0.550	U	0.530	U
Dibromochloromethane	ug/m3	1.300	U	1.300	U
Dichlorodifluoromethane	ug/m3	1.700	D	1.900	D
Ethyl acetate	ug/m3	1.300	D	1.100	U
Ethyl Benzene	ug/m3	0.690	D	0.670	J
Hexachlorobutadiene	ug/m3	1.700	U	1.600	U
Isopropanol	ug/m3	8.700	BD	3.300	BD
Methyl Methacrylate	ug/m3	0.650	U	0.630	U
Methyl tert-butyl ether (MTBE)	ug/m3	0.570	U	0.550	U
Methylene chloride	ug/m3	1.100	J	1.100	J
n-Heptane	ug/m3	0.650	J	0.630	J
n-Hexane	ug/m3	0.560	D	0.540	U
o-Xylene	ug/m3	0.690	J	0.670	D
p- & m- Xylenes	ug/m3	2.100	D	1.900	D
p-Ethyltoluene	ug/m3	0.780	U	0.760	J
Propylene	ug/m3	3.600	D	2.100	D
Styrene	ug/m3	0.670	J	0.660	J
Tetrachloroethylene	ug/m3	14	D	62	D
Tetrahydrofuran	ug/m3	0.930	J	0.910	J
Toluene	ug/m3	27	D	5.600	D
trans-1,2-Dichloroethylene	ug/m3	0.630	U	0.610	U
trans-1,3-Dichloropropylene	ug/m3	0.720	U	0.700	U
Trichloroethylene	ug/m3	0.340	D	1.200	D
Trichlorofluoromethane (Freon 11)	ug/m3	0.890	J	0.860	D
Vinyl acetate	ug/m3	0.560	U	0.540	U
Vinyl bromide	ug/m3	0.690	U	0.670	U
Vinyl Chloride	ug/m3	0.530	D	0.200	U

**NOTES:**

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

VOC - Volatile Organic Compound

Table 3. Effluent Data  
30th Street Redevelopment Site  
37-24 28 30th Street  
Queens, NY 11101  
NYSDEC BCP Site No. C241214

Sample ID Sample Date Location Sample Type	EFFLUENT 1 12/15/2022 37-24 30th Street SSDS Effluent			EFFLUENT 2 12/15/2022 37-28 30th Street SSDS Effluent	
	Units	Results	Q	Results	Q
<b>VOCs</b>					
Dichlorodifluoromethane	ug/m3	2.61		2.69	
Chloromethane	ug/m3	0.576	U	0.681	U
Freon-114	ug/m3	1.95	U	2.31	U
Vinyl chloride	ug/m3	0.713	U	0.844	U
1,3-Butadiene	ug/m3	0.617	U	0.73	U
Bromomethane	ug/m3	1.08	U	1.28	U
Chloroethane	ug/m3	0.736	U	0.871	U
Ethanol	ug/m3	13.1	U	26.8	
Vinyl bromide	ug/m3	1.22	U	1.44	U
Acetone	ug/m3	4.39		6.37	
Trichlorofluoromethane	ug/m3	1.57	U	1.85	U
Isopropanol	ug/m3	1.71	U	2.03	U
1,1-Dichloroethene	ug/m3	1.11	U	1.31	U
Tertiary butyl Alcohol	ug/m3	2.11	U	2.5	U
Methylene chloride	ug/m3	2.42	U	2.87	U
3-Chloropropene	ug/m3	0.873	U	1.03	U
Carbon disulfide	ug/m3	0.869	U	1.03	U
Freon-113	ug/m3	2.14	U	2.53	U
trans-1,2-Dichloroethene	ug/m3	1.11	U	1.31	U
1,1-Dichloroethane	ug/m3	1.13	U	1.34	U
Methyl tert butyl ether	ug/m3	1.01	U	1.19	U
2-Butanone	ug/m3	2.06	U	2.43	U
cis-1,2-Dichloroethene	ug/m3	1.11	U	1.31	U
Ethyl Acetate	ug/m3	2.51	U	2.97	U
Chloroform	ug/m3	2.44		2.37	
Tetrahydrofuran	ug/m3	2.06	U	4.66	
1,2-Dichloroethane	ug/m3	1.13	U	1.34	U
n-Hexane	ug/m3	0.983	U	1.16	U
1,1,1-Trichloroethane	ug/m3	1.52	U	1.8	U
Benzene	ug/m3	0.891	U	1.05	U
Carbon tetrachloride	ug/m3	1.76	U	2.08	U
Cyclohexane	ug/m3	0.96	U	1.14	U
1,2-Dichloropropane	ug/m3	1.29	U	1.53	U
Bromodichloromethane	ug/m3	1.87	U	2.21	U
1,4-Dioxane	ug/m3	1.01	U	1.19	U
Trichloroethene	ug/m3	2.64		4.12	
2,2,4-Trimethylpentane	ug/m3	1.3	U	1.54	U
Heptane	ug/m3	1.14	U	1.35	U
cis-1,3-Dichloropropene	ug/m3	1.27	U	1.5	U
4-Methyl-2-pentanone	ug/m3	2.86	U	3.38	U
trans-1,3-Dichloropropene	ug/m3	1.27	U	1.5	U
1,1,2-Trichloroethane	ug/m3	1.52	U	1.8	U
Toluene	ug/m3	1.05	U	1.24	U
2-Hexanone	ug/m3	1.14	U	1.35	U
Dibromochloromethane	ug/m3	2.38	U	2.81	U
1,2-Dibromoethane	ug/m3	2.14	U	2.54	U
Tetrachloroethene	ug/m3	130		205	
Chlorobenzene	ug/m3	1.28	U	1.52	U
Ethylbenzene	ug/m3	1.21	U	1.43	U
p/m-Xylene	ug/m3	2.42	U	2.87	U
Bromoform	ug/m3	2.88	U	3.41	U
Styrene	ug/m3	1.19	U	1.41	U
1,1,2,2-Tetrachloroethane	ug/m3	1.92	U	2.27	U
o-Xylene	ug/m3	1.21	U	1.43	U
4-Ethyltoluene	ug/m3	1.37	U	1.62	U
1,3,5-Trimethylbenzene	ug/m3	1.37	U	1.62	U
1,2,4-Trimethylbenzene	ug/m3	1.45		1.62	U
Benzyl chloride	ug/m3	1.44	U	1.71	U
1,3-Dichlorobenzene	ug/m3	1.68	U	1.98	U
1,4-Dichlorobenzene	ug/m3	1.68	U	1.98	U
1,2-Dichlorobenzene	ug/m3	1.68	U	1.98	U
1,2,4-Trichlorobenzene	ug/m3	2.07	U	2.45	U
Hexachlorobutadiene	ug/m3	2.98	U	3.52	U

Notes

Q - Qualifier

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

ug/m3 - micrograms per cubic meter

VOC - Volatile Organic Compound

Table 4. SSDS Monitoring Results  
 30th Street Redevelopment Site  
 37-24 28 30th Street  
 Queens, NY 11101  
 NYSDEC BCP Site No. C241214

Date	11/16/2022	12/13/2022*	12/14/2022
Sub-Slab Monitoring Point	Pressure (inWC)	Pressure (inWC)	Pressure (inWC)
MP-1	-0.077	-0.084	-0.073
MP-2	NA	NA	NA
MP-3	-0.040	-0.048	NM
MP-4	-0.068	-0.068	NM
MP-5	-0.300	-0.028	-0.040
MP-6	-0.103	-0.014	-0.128
MP-7	-0.032	-0.024	NM
MP-8	-0.030	-0.030	NM

Notes:

NA - Not Available

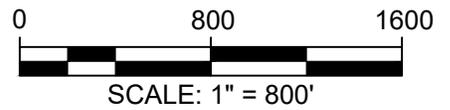
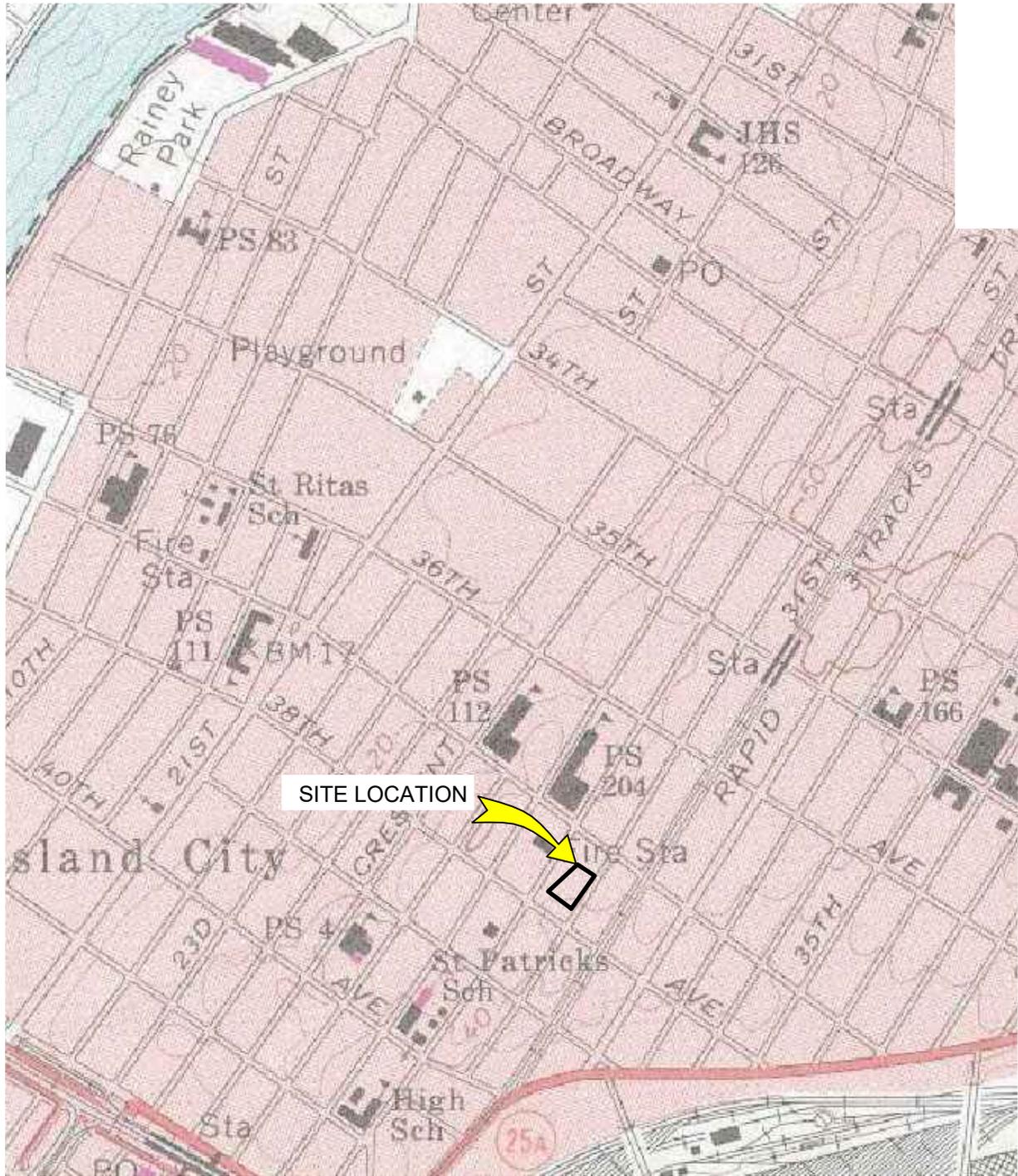
NM - Not Measured

\*On 12/13/22, the vacuum in MP-6 was measured lower than the required -0.02 in WC. The flow of the fan which services this MP was increased and GEI returned to the Site on December 14, 2023 to measure the vacuum in all of the monitoring points serviced by this fan.

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## Figures

---



**SOURCE:**

1. USGS CENTRAL PARK QUADRANGLE MAP.

Periodic Review Report  
 37-24 & 37-28 30th Street Redevelopment Site  
 Long Island City, New York

31ST AVENUE ASSOCIATES LLC &  
 37-26 30TH AVENUE LLC  
 NEW HYDE PARK, NEW YORK

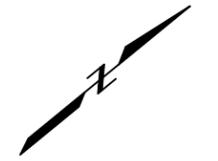
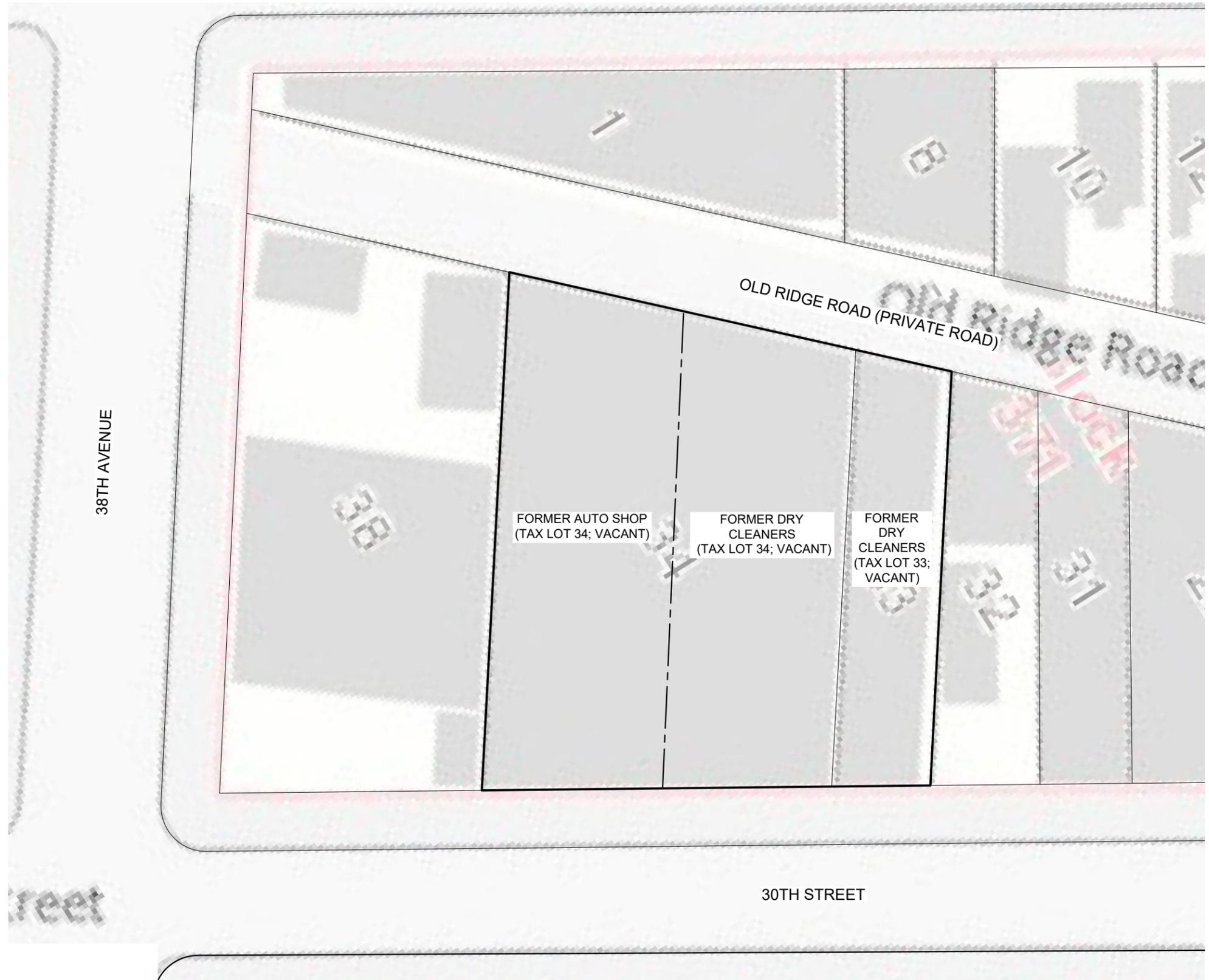


Project 1800522

SITE LOCATION MAP

July 2023

Fig. 1



**LEGEND:**

- BROWNFIELD CLEAN UP PROGRAM SITE BOUNDARY
- - - TAX LOT LINE
- - - - TAX LOT DIVISION LINE (2 PROPERTIES)

**SOURCE:**

1. PLAN BASED ON MAP BY NYS OASIS.



Periodic Review Report  
 37-24 & 37-28 30th Street Redevelopment Site  
 Long Island City, New York

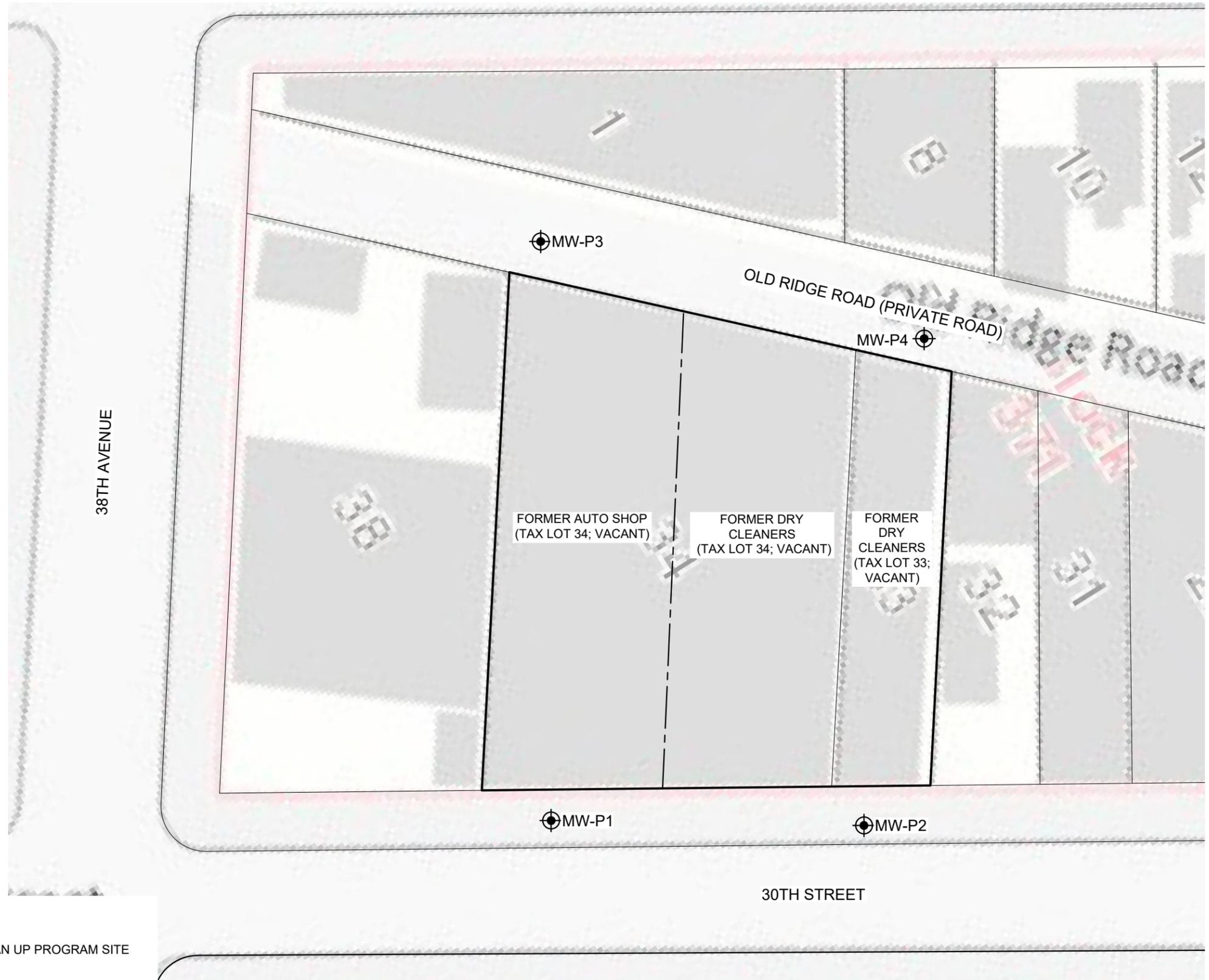
31ST AVENUE ASSOCIATES LLC &  
 37-26 30TH AVENUE LLC  
 NEW HYDE PARK, NEW YORK

**GEI** Consultants  
 Project 1800522

SITE PLAN

July 2023

Fig. 2



**LEGEND:**

-  BROWNFIELD CLEAN UP PROGRAM SITE BOUNDARY
-  TAX LOT LINE
-  MW-P1 PERMANENT MONITORING WELL LOCATION

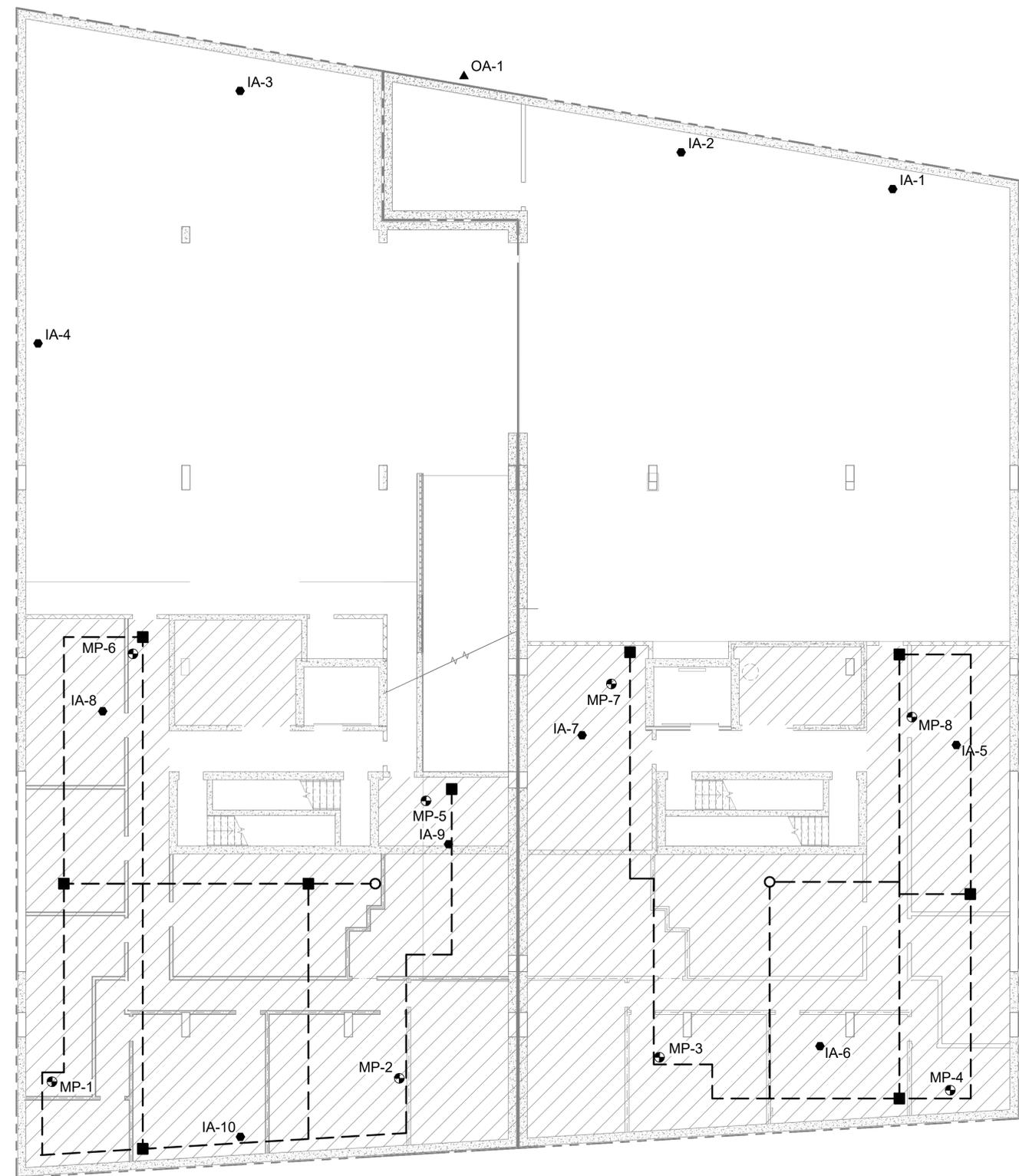
**SOURCE:**  
1. PLAN BASED ON MAP BY NYS OASIS.



Periodic Review Report  
37-24 & 37-28 30th Street Redevelopment Site  
Long Island City, New York  
31ST AVENUE ASSOCIATES LLC &  
37-26 30TH AVENUE LLC  
NEW HYDE PARK, NEW YORK

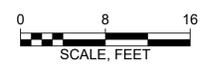
**GEI** Consultants  
Project 1800522

PERMANENT MONITORING WELL LOCATIONS  
July 2023  
Fig. 3



- LEGEND:**
- MP-1 SSSS MONITORING POINT
  - SSSS PIPING - 4" SCH 40 PVC PERFORATED VENT PIPE
  - CLEANOUT
  - 3 INCH GALVANIZED STEEL VENT TO ROOF WITH IN-LINE VENT FAN
  - ▨ AREA SERVED BY SSSS
  - POST-REMEDIAL INDOOR AIR SAMPLE
  - ▲ OUTDOOR AIR

**AS-BUILT SUB-SLAB  
DEPRESSURIZATION SYSTEM**  
SCALE: 1/8" = 1'-0"



Periodic Review Report 37-24 & 37-28 30th Street Redevelopment Site Long Island City, New York		<b>POST REMEDIAL AIR SAMPLING LOCATIONS</b>
31st Avenue Associates LLC & 37-26 30th Avenue LLC New Hyde Park, New York	Project 1800522 July 2023	Fig. 4

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix A**

---

### **Institutional and Engineering Controls Certification Form**



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



**Site Details**

**Box 1**

**Site No.** C241214

**Site Name** 37-24 & 37-28 30th Street Redevelopment Site

Site Address: 37-24 & 37-28 30th Street Zip Code: 11101  
 City/Town: Long Island City  
 County: Queens  
 Site Acreage: 0.370

Reporting Period: December 28, 2021 to April 28, 2023

- |  | 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"/> |
| <b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b> |                                     |                                     |
| 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?<br>Unrestricted, Residential, 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.**

**Box 2A**

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?  YES  NO

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

9. Are the assumptions in the Qualitative Exposure Assessment still valid?  YES  NO  
(The Qualitative Exposure Assessment must be certified every five years)

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C241214**

**Box 3**

**Description of Institutional Controls**

Parcel

Owner

Institutional Control

371-33

37-26 30th Street LLC

Ground Water Use Restriction  
Site Management Plan  
O&M Plan

Monitoring Plan  
IC/EC Plan

The remedy is conditional track 1. The site meets unrestricted SCOs for soil. Residual groundwater contamination must be addressed by a Site Management Plan.

The use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use.

Quarterly groundwater monitoring and sub-slab depressurization system.

371-34

37-26 30th Street LLC

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

The remedy is conditional track 1. The site meets unrestricted SCOs for soil. Residual groundwater contamination must be addressed by a Site Management Plan.

The use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use.

Quarterly groundwater monitoring and sub-slab depressurization system.

**Box 4**

**Description of Engineering Controls**

Parcel

Engineering Control

**371-33**

Vapor Mitigation  
Monitoring Wells  
Groundwater Treatment System

Groundwater will be monitored until residual concentrations of groundwater contaminants are below groundwater standards, or there is a bulk reduction to asymptotic levels acceptable to the Department.

Sub-Slab Depressurization System.

**371-34**

Groundwater Treatment System  
Monitoring Wells  
Vapor Mitigation

Groundwater will be monitored until residual concentrations of groundwater contaminants are below groundwater standards, or there is a bulk reduction to asymptotic levels acceptable to the Department.

Sub-slab depressurization system.

**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

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

**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. C241214

Box 6

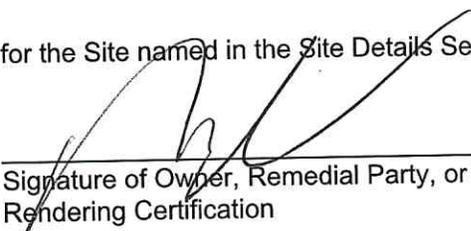
**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

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 Robert Cirrone at 1836 Gilford Ave, New Hyde Park, NY  
print name print business address

am certifying as Managing member (Owner or Remedial Party)

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

  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

5/26/23  
Date

**EC CERTIFICATIONS**

**Box 7**

**Professional Engineer 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.

I Gary Rozmus at 1000 New York Ave, Ste. B, Huntington Station, NY 11746  
print name print business address

am certifying as a Professional Engineer for the Owner  
(Owner or Remedial Party)



5/30/23

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

Stamp  
(Required for PE)

Date

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix B**

---

### **Site-Wide Inspection Form**



**Non-Compliance**

Describe any incidents of non-compliance not described above:

alarm needs to be <sup>repaired</sup> ~~tested~~  
~~switches~~  
switches need to be removed from fery

**CERTIFICATION STATEMENT**

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**Print name and title:** William Fitchett, Project Manager

**Signature:** William J. Fitchett

**Date:** 5/30/2023

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix C**

---

### **NYSDEC Structure Sampling Questionnaire and Building Inventory**



# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: 30th Street Redevelopment Site Site Code: 0241214 Operable Unit: NA

Building Code: \_\_\_\_\_ Building Name: \_\_\_\_\_

Address: 37-24 & 28 30th Street Apt/Suite No: \_\_\_\_\_

City: Queens State: NY Zip: 11101 County: Queens

### Contact Information

Preparer's Name: \_\_\_\_\_ Phone No: \_\_\_\_\_

Preparer's Affiliation: GEI Consultants, Inc., P.C. Company Code: GEI

Purpose of Investigation: Compliance with SMP Date of Inspection: 12/14/22

Contact Name: \_\_\_\_\_ Affiliation: \_\_\_\_\_

Phone No: \_\_\_\_\_ Alt. Phone No: \_\_\_\_\_ Email: \_\_\_\_\_

Number of Occupants (total): 0 Number of Children: \_\_\_\_\_

Occupant Interviewed?  Owner Occupied?  Owner Interviewed?

Owner Name (if different): \_\_\_\_\_ Owner Phone: \_\_\_\_\_

Owner Mailing Address: \_\_\_\_\_

### Building Details

Bldg Type (Res/Com/Ind/Mixed): RESIDENTIAL Bldg Size (S/M/L): \_\_\_\_\_

If Commercial or Industrial Facility, Select Operations: \_\_\_\_\_

If Residential Select Structure Type: TOWNHOUSES-CONDOS

Number of Floors: 7 Approx. Year Construction: 2022  Building Insulated?  Attached Garage?

Describe Overall Building 'Tightness' and Airflows (e.g., results of smoke tests):  
 \_\_\_\_\_  
 \_\_\_\_\_

### Foundation Description

Foundation Type: BASEMENT Foundation Depth (bgs): 15 Unit: FEET

Foundation Floor Material: POURED CONCRETE Foundation Floor Thickness: 6 Unit: INCHES

Foundation Wall Material: POURED CONCRETE Foundation Wall Thickness: \_\_\_\_\_ Unit: INCHES

Floor penetrations? Describe Floor Penetrations: \_\_\_\_\_

Wall penetrations? Describe Wall Penetrations: \_\_\_\_\_

Basement is: FINISHED Basement is: DRY  Sumps/Drains? Water In Sump?: NO

Describe Foundation Condition (cracks, seepage, etc.): \_\_\_\_\_

Radon Mitigation System Installed?  VOC Mitigation System Installed?  Mitigation System On?

### Heating/Cooling/Ventilation Systems

Heating System: FORCED AIR Heat Fuel Type: GAS  Central A/C Present?

### Vented Appliances

Water Heater Fuel Type: GAS Clothes Dryer Fuel Type: GAS

Water Htr Vent Location: OUTSIDE Dryer Vent Location: OUTSIDE



**Structure Sampling Questionnaire and Building Inventory**  
New York State Department of Environmental Conservation

**PRODUCT INVENTORY**

Building Name: \_\_\_\_\_ Bldg Code: \_\_\_\_\_ Date: 12/13/22 & 12/14/22

Bldg Address: 37-24 and 28 30th Street Apt/Suite No: \_\_\_\_\_

Bldg City/State/Zip: Queens NY, 11101

Make and Model of PID: \_\_\_\_\_ Date of Calibration: \_\_\_\_\_

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
N/A	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

\* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**  
\*\* Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Product Inventory Complete?  Yes  No      Were there any elevated PID readings taken on site?  Yes  No       Products with COC?



**Structure Sampling Questionnaire and Building Inventory**  
New York State Department of Environmental Conservation

Site Name: \_\_\_\_\_ Site Code: \_\_\_\_\_ Operable Unit: \_\_\_\_\_  
Building Code: \_\_\_\_\_ Building Name: \_\_\_\_\_  
Address: 37-24 and 28 30th Street Apt/Suite No: \_\_\_\_\_  
City: Queens State: NY Zip: 11101 County: Queens

**Factors Affecting Indoor Air Quality**

Frequency Basement/Lowest Level is Occupied?:  Floor Material:   
 Inhabited?       HVAC System On?       Bathroom Exhaust Fan?       Kitchen Exhaust Fan?  
Alternate Heat Source:        Is there smoking in the building?  
 Air Fresheners?      Description/Location of Air Freshener: \_\_\_\_\_  
 Cleaning Products Used Recently?:      Description of Cleaning Products: \_\_\_\_\_  
 Cosmetic Products Used Recently?:      Description of Cosmetic Products: \_\_\_\_\_  
 New Carpet or Furniture?      Location of New Carpet/Furniture: \_\_\_\_\_  
 Recent Dry Cleaning?      Location of Recently Dry Cleaned Fabrics: \_\_\_\_\_  
 Recent Painting/Staining?      Location of New Painting: \_\_\_\_\_  
 Solvent or Chemical Odors?      Describe Odors (if any): \_\_\_\_\_  
 Do Any Occupants Use Solvents At Work?      If So, List Solvents Used: \_\_\_\_\_  
 Recent Pesticide/Rodenticide?      Description of Last Use: \_\_\_\_\_

**Describe Any Household Activities (chemical use,/storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:**  
None - Building is Vacant

Any Prior Testing For Radon?      If So, When?: \_\_\_\_\_  
 Any Prior Testing For VOCs?      If So, When?: \_\_\_\_\_

**Sampling Conditions**

Weather Conditions:       Outdoor Temperature:  °F  
Current Building Use: \_\_\_\_\_      Barometric Pressure: \_\_\_\_\_ in(hg)  
Product Inventory Complete?        Building Questionnaire Completed?



**Structure Sampling Questionnaire and Building Inventory**  
New York State Department of Environmental Conservation

Building Code: \_\_\_\_\_ Address: 37-24 & 28 30th Street Queens, NY 11101

**Sampling Information**

Sampler Name(s): William J. Fitchett Sampler Company Code: \_\_\_\_\_  
 Sample Collection Date: 12/14/22 Date Samples Sent To Lab: 12/15/22  
 Sample Chain of Custody Number: L2270207 Outdoor Air Sample Location ID: OA-1

**SUMMA Canister Information SEE COC**

Sample ID:	<input type="text"/>				
Location Code:	<input type="text"/>				
Location Type:	<input type="text"/>				
Canister ID:	<input type="text"/>				
Regulator ID:	<input type="text"/>				
Matrix:	<input type="text"/>				
Sampling Method:	<input type="text"/>				

**Sampling Area Info**

Slab Thickness (inches):	<input type="text"/>				
Sub-Slab Material:	<input type="text"/>				
Sub-Slab Moisture:	<input type="text"/>				
Seal Type:	<input type="text"/>				
Seal Adequate?:	<input type="checkbox"/>				

**Sample Times and Vacuum Readings**

Sample Start Date/Time:	<input type="text"/>				
Vacuum Gauge Start:	<input type="text"/>				
Sample End Date/Time:	<input type="text"/>				
Vacuum Gauge End:	<input type="text"/>				
Sample Duration (hrs):	<input type="text"/>				
Vacuum Gauge Unit:	<input type="text"/>				

**Sample QA/QC Readings**

Vapor Port Purge:	<input type="checkbox"/>				
Purge PID Reading:	<input type="text"/>				
Purge PID Unit:	<input type="text"/>				
Tracer Test Pass:	<input type="checkbox"/>				

Sample start and end times should be entered using the following format: MM/DD/YYYY HH:MM

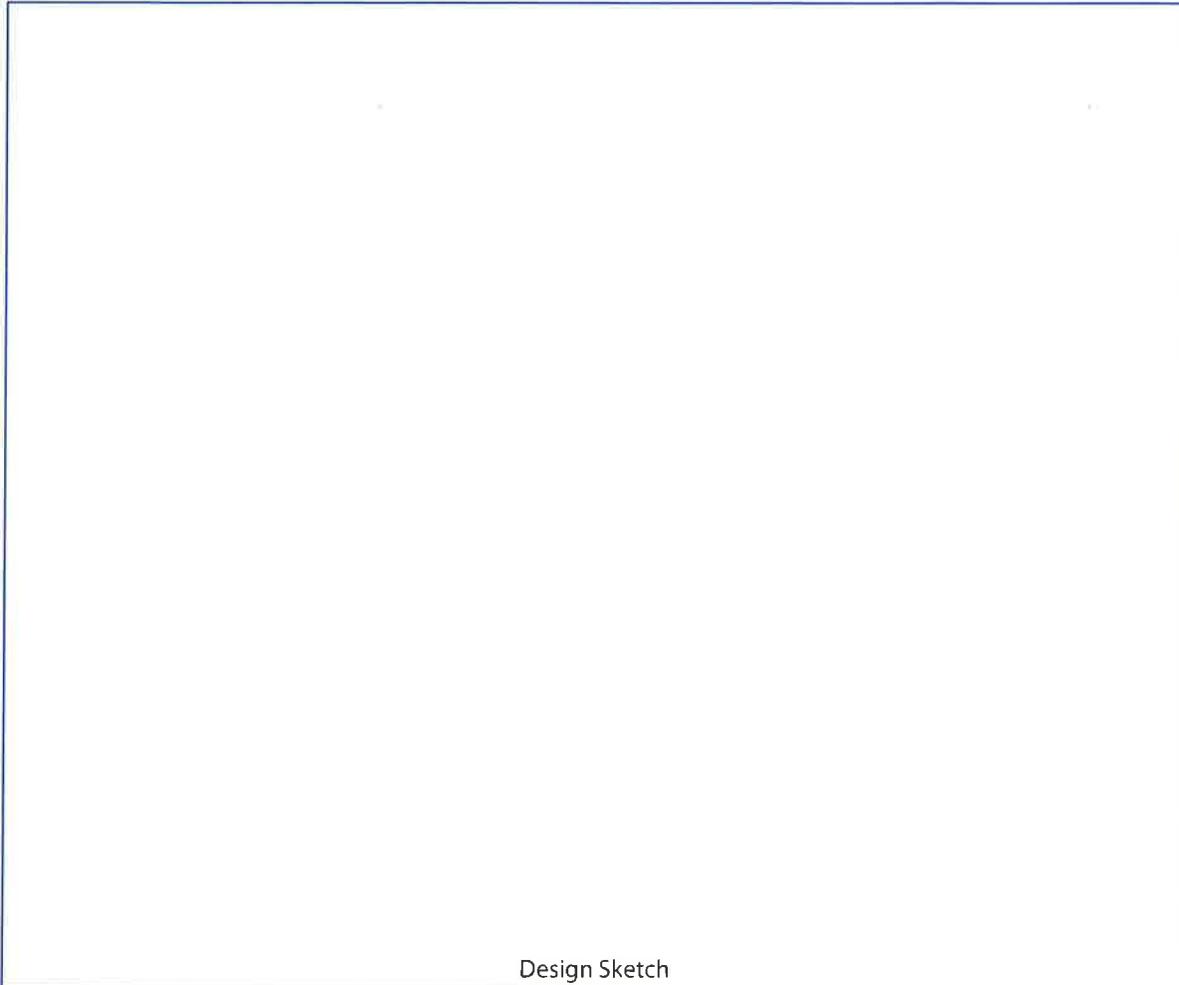


**Structure Sampling Questionnaire and Building Inventory**  
New York State Department of Environmental Conservation

**LOWEST BUILDING LEVEL LAYOUT SKETCH**

Please click the box with the blue border below to upload a sketch of the lowest building level. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

**Design Sketch Guidelines and Recommended Symbology**

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

<b>B or F</b>	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
<b>HW</b>	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
<b>FP</b>	Fireplaces	#####	Areas of broken-up concrete
<b>WS</b>	Wood Stoves	● SS-1	Location & label of sub-slab samples
<b>W/D</b>	Washer / Dryer	● IA-1	Location & label of indoor air samples
<b>S</b>	Sumps	● OA-1	Location & label of outdoor air samples
<b>@</b>	Floor Drains	● PFET-1	Location and label of any pressure field test holes.



**Structure Sampling Questionnaire and Building Inventory**  
New York State Department of Environmental Conservation

**FIRST FLOOR BUILDING LAYOUT SKETCH**

Please click the box with the blue border below to upload a sketch of the first floor of the building. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image

NA - No Sampling Conducted in First Floor

Design Sketch

**Design Sketch Guidelines and Recommended Symbolology**

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

<b>B or F</b>	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
<b>HW</b>	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
<b>FP</b>	Fireplaces	#####	Areas of broken-up concrete
<b>WS</b>	Wood Stoves	● SS-1	Location & label of sub-slab samples
<b>W/D</b>	Washer / Dryer	● IA-1	Location & label of indoor air samples
<b>S</b>	Sumps	● OA-1	Location & label of outdoor air samples
<b>@</b>	Floor Drains	● PFET-1	Location and label of any pressure field test holes.



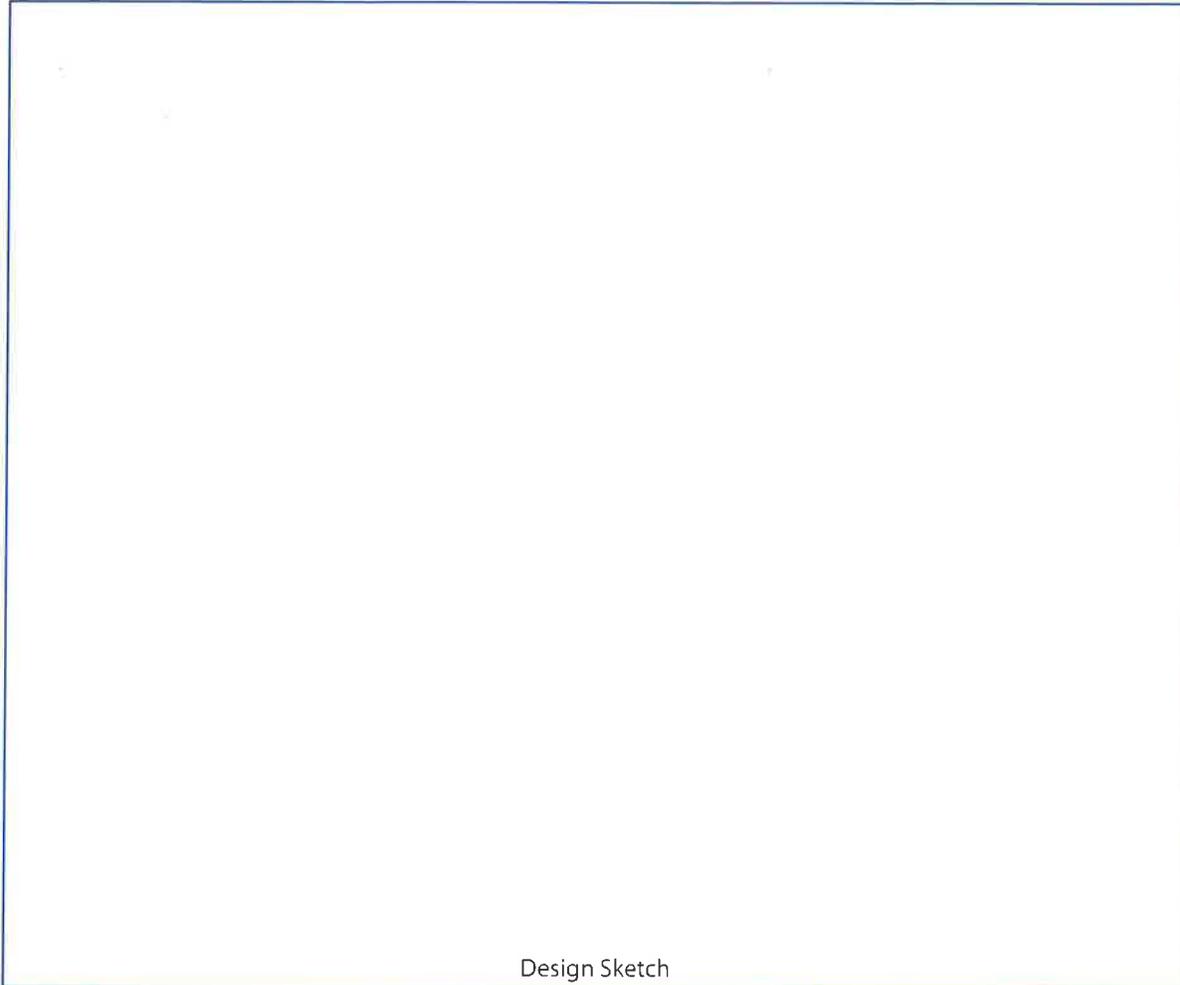
# Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

## OUTDOOR PLOT LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the outdoor plot of the building as well as the surrounding area. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

### Design Sketch Guidelines and Recommended Symbolology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

<b>B or F</b>	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
<b>HW</b>	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
<b>FP</b>	Fireplaces	#####	Areas of broken-up concrete
<b>WS</b>	Wood Stoves	● SS-1	Location & label of sub-slab samples
<b>W/D</b>	Washer / Dryer	● IA-1	Location & label of indoor air samples
<b>S</b>	Sumps	● OA-1	Location & label of outdoor air samples
<b>@</b>	Floor Drains	● PFET-1	Location and label of any pressure field test holes



Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix D**

---

### **Category B Indoor and Outdoor Air Laboratory Data Report**



[www.alphalab.com](http://www.alphalab.com)



**Alpha Analytical**

**Laboratory Code: 11148**

**SDG Number: L2270207**

*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.*

## Table of Contents

New York ASP Category B Data Deliverable Package.....	1
Table of Contents .....	2
Sample ID Cross Reference .....	4
SDG Narrative .....	5
Data Qualifier Definitions .....	7
Instrument Information .....	10
Sample Log-in Sheet .....	13
Lims COC (LN01) .....	14
External Chain of Custody .....	16
Supporting Documentation .....	18
Air Canister Report .....	19
Air Canister Certification Results .....	21
Organics Analysis .....	37
Volatile Organics in Air TO-15 Low Level .....	38
Volatiles QC Summary .....	39
Form 3 - Organics .....	40
Form 4 - Organics .....	42
Form 5 - Organics .....	43
Form 8 - Organics .....	45
MDL Study - Volatile Organics in Air: TO-15 .....	46
Volatiles Sample Data .....	49
Form 1 - Organics .....	50
OA-1 (L2270207-05) Analyzed: 12/21/22 18:36 .....	64
IA-1 (L2270207-01) Analyzed: 12/21/22 19:13 .....	68
IA-2 (L2270207-02) Analyzed: 12/21/22 19:44 .....	73
IA-3 (L2270207-03) Analyzed: 12/21/22 20:15 .....	78
IA-4 (L2270207-04) Analyzed: 12/21/22 20:46 .....	82
IA-5 (L2270207-06) Analyzed: 12/21/22 21:26 .....	86
IA-6 (L2270207-07) Analyzed: 12/21/22 21:59 .....	91
IA-8 (L2270207-09) Analyzed: 12/21/22 23:14 .....	96
IA-9 (L2270207-10) Analyzed: 12/22/22 00:16 .....	101
IA-10 (L2270207-11) Analyzed: 12/22/22 00:46 .....	105
DUP121422 (L2270207-12) Analyzed: 12/22/22 01:19 .....	110
IA-7 (L2270207-08) Analyzed: 12/22/22 08:31 .....	115
Volatile Standards Data .....	120
Initial Calibration .....	121
Form 6 - Organics .....	122
ICAL for AIRLAB20 on 12/14/22 ICAL19588 .....	126
Initial Calibration Summary - Cal Date: 12/14/22 00:00 .....	126
BFB TUNE Injected on: 12/14/22 01:08 .....	130
STD0.2 Injected on: 12/14/22 03:03 .....	131
STD0.5 Injected on: 12/14/22 03:33 .....	143
STD1.0 Injected on: 12/14/22 04:05 .....	154
STD5.0 Injected on: 12/14/22 10:00 .....	164
STD010 Injected on: 12/14/22 10:33 .....	175
STD020 Injected on: 12/14/22 05:40 .....	184
STD050 Injected on: 12/14/22 06:11 .....	192
STD100 Injected on: 12/14/22 06:44 .....	200
ICV SUMMARY Injected on: 12/14/22 13:12 .....	207
ICV QUANT Injected on: 12/14/22 13:12 .....	210

## Table of Contents

Continuing Calibration .....	217
Form 7 - Organics .....	218
CC Summary - AIRLAB20 Run: 12/21/22 13:55 .....	221
CC Quant - WG1726244-2 AIRLAB20 Run: 12/21/22 13:55 .....	224
bfb tune - Inst. AIRLAB20 12/21/22 12:45 .....	229
Volatiles Raw QC Data .....	230
Laboratory Method BI (WG1726244-4) Analyzed: 12/21/22 15:56 .....	231
LCS Summary for WG1726244-3 .....	234
Laboratory Control S (WG1726244-3) Analyzed: 12/21/22 13:55 .....	237
Duplicate Sample (WG1726244-5) Analyzed: 12/21/22 23:45 .....	248
Air Calculations .....	253
QC Batch WG1726244 .....	255
ICAL Sequence for AIRLAB20 on 14-DEC-2022 00:00 ICAL19588 .....	256
Instrument AIRLAB20 Run Date 12/21/22 Run ID R1646086 .....	258

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270207  
**Report Date:** 12/23/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2270207-01	IA-1	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:05	12/14/22
L2270207-02	IA-2	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 08:48	12/14/22
L2270207-03	IA-3	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:06	12/14/22
L2270207-04	IA-4	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:07	12/14/22
L2270207-05	OA-1	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:04	12/14/22
L2270207-06	IA-5	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:08	12/14/22
L2270207-07	IA-6	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:09	12/14/22
L2270207-08	IA-7	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:25	12/14/22
L2270207-09	IA-8	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:11	12/14/22
L2270207-10	IA-9	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 07:13	12/14/22
L2270207-11	IA-10	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 09:23	12/14/22
L2270207-12	DUP121422	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	12/14/22 09:23	12/14/22
L2270207-13	UNUSED CAN #633	AIR	37-24/28 30TH STREET LONG ISLAND CITY, NY 11101		12/14/22

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270207  
**Report Date:** 12/23/22

### Case Narrative

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

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

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

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

#### HOLD POLICY

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

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

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270207  
**Report Date:** 12/23/22

**Case Narrative (continued)**

Volatile Organics in Air

Canisters were released from the laboratory on December 12, 2022. The canister certification results are provided as an addendum.

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

Authorized Signature: 

Report Date: 12/23/22

Title: Technical Director/Representative

## 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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: Data Usability Report

### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**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. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

**Report Format:** Data Usability Report

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270207  
**Report Date:** 12/23/22

**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- ND** - Not detected at the reporting limit (RL) for the sample.



## Volatile Organics Instruments

### Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD  
 Trap: Supelco K Trap (VOACARB 3000)  
 Concentrator: EST Encon (or equivalent)  
 Autosampler: EST Centurion (or equivalent)  
 Purge time: 11 min

Columns (length x ID x df):  
 RTX-VMS 20m x 0.18mm x 1um  
 RTX-VMS 30m x 0.25mm x 1.4um  
 RTX-502.2 40m x 0.18mm x 1um

### Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)  
 Trap: Supelco K Trap (VOACARB 3000)  
 Concentrator: EST Encon (or equivalent)  
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2  
 Column Length: 105 Meters  
 df: 3.00 um  
 ID: 0.53mm

### Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD  
 Trap: Supelco K Trap (VOACARB 3000)  
 Concentrator: Tekmar Velocity / EST Encon  
 Autosampler: Varian Archon / EST Centurion  
 Purge time: 11 min

Column Type: DB-VRX  
 Column Length: 60 Meters  
 df: 1.40 um  
 ID: 0.25 mm  
 Desorb: 1 min

### Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column  
 Column Length: 2 Meters packed  
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

## Volatile Organics in Air Instruments

### Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200  
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1  
 Column Length: 60 Meters  
 df: 1.00 um  
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



## Semivolatile Organics Instruments - Westborough

### Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.32 um
Column Length: 30 Meters	ID: 0.25 mm

### Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul;2 uL LVI
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

### Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

### Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



**Semivolatile Organic Instruments - Mansfield**

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



## Sample Delivery Group Summary

Alpha Job Number : L2270207

Received : 14-DEC-2022

Reviewer : Jennifer Jerome

Account Name : GEI Consultants

Project Number : 1800522

Project Name : 30TH STREET REDEVELOPMENT SITE

### Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

### Condition Information

- |  |            |
|--|------------|
| 1) All samples on COC received?                                  | <b>YES</b> |
| 2) Extra samples received?                                       | <b>NO</b>  |
| 3) Are there any sample container discrepancies?                 | <b>NO</b>  |
| 4) Are there any discrepancies between COC & sample labels?      | <b>NO</b>  |
| 5) Are samples in appropriate containers for requested analysis? | <b>YES</b> |
| 6) Are samples properly preserved for requested analysis?        | <b>YES</b> |
| 7) Are samples within holding time for requested analysis?       | <b>YES</b> |
| 8) All sampling equipment returned?                              | <b>YES</b> |

### Volatile Organics/VPH

- |  |           |
|--|-----------|
| 1) Reagent Water Vials Frozen by Client? | <b>NA</b> |
|--|-----------|

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Dec 29 2022, 03:47 pm

Login Number: L2270207

Account: GEI-NY GEI Consultants Project: 1800522

Received: 14DEC22 Due Date: 28DEC22

Sample #	Client ID	Mat	PR	Collected
L2270207-01	IA-1	10	S0	14DEC22 07:05
CVOCs only ASP-B Package Due Date: 12/28/22				
ASP-B,CAN-RENT,E&I-FEE,FLOW-RENT,TO15-LL				
L2270207-02	IA-2	10	S0	14DEC22 08:48
CVOCs only Package Due Date: 12/28/22				
CAN-RENT,FLOW-RENT,TO15-LL				
L2270207-03	IA-3	10	S0	14DEC22 07:06
CVOCs only Package Due Date: 12/28/22				
CAN-RENT,FLOW-RENT,TO15-LL				
L2270207-04	IA-4	10	S0	14DEC22 07:07
CVOCs only Package Due Date: 12/28/22				
CAN-RENT,FLOW-RENT,TO15-LL				
L2270207-05	OA-1	10	S0	14DEC22 07:04
CVOCs only Package Due Date: 12/28/22				
CAN-RENT,FLOW-RENT,TO15-LL				
L2270207-06	IA-5	10	S0	14DEC22 07:08
CVOCs only Package Due Date: 12/28/22				
CAN-RENT,FLOW-RENT,TO15-LL				
L2270207-07	IA-6	10	S0	14DEC22 07:09
CVOCs only Package Due Date: 12/28/22				

ALPHA ANALYTICAL LABORATORIES, INC.  
LOGIN CHAIN OF CUSTODY REPORT  
Dec 29 2022, 03:47 pm

Login Number: L2270207

Account: GEI-NY GEI Consultants Project: 1800522

Received: 14DEC22 Due Date: 28DEC22

Sample #	Client ID	Mat	PR	Collected
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-08	IA-7	10	S0	14DEC22 07:25
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-09	IA-8	10	S0	14DEC22 07:11
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-10	IA-9	10	S0	14DEC22 07:13
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-11	IA-10	10	S0	14DEC22 09:23
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-12	DUP121422	10	S0	14DEC22 09:23
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, FLOW-RENT, TO15-LL				
L2270207-13	UNUSED CAN #633	10	S0	
CVOCs only Package Due Date: 12/28/22				
CAN-RENT, CLEAN-FEE, FLOW-RENT				



CHAIN OF CUSTODY

AIR ANALYSIS

PAGE 1 OF 2

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

Date Rec'd in Lab: 12/15/22

ALPHA Job #: L2270207

Project Information

Project Name: 30th Street Redevelopment Site

Project Location: 37-24/28 30th Street Long Island City, NY 11101

Project #: 1800522

Project Manager: William J. Fitchett

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

FAX ADEX Criteria Checker: CAT B deliverable (Default based on Regulatory Criteria Indicated)

Other Formats: EMAIL (standard pdf report) Additional Deliverables:

Report to: (if different than Project Manager) same

Billing Information

Same as Client info PO #: 1800522

Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

Client Information

Client: GEI Consultants, Inc. P.C

Address: 1000 New York Ave, Ste B

Huntington Station, NY 11746

Phone: 631-905-7636

Fax:

Email: w.fitchett@geiconsultants.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments: CVOCS only Please copy Nick Recchia on results. nrecchia@geiconsultants.com

Project-Specific Target Compound List:

do not analyze can 633

ANALYSIS

TO-15 (CVOCS only) TO-15 SIM APH Substrate Non-petroleum HCs Fixed Gases Sulfides & Mercaptans by TO-15

All Columns Below Must Be Filled Out

Table with columns: ALPHA Lab ID, Sample ID, COLLECTION (End Date, Start Time, End Time, Initial Vacuum, Final Vacuum), Sample Matrix, Sampler's Initials, Can Size, ID Can, ID - Flow Controller, TO-15 (CVOCS only), TO-15 SIM, APH, Fixed Gases, Sulfides & Mercaptans by TO-15, Sample Comments (i.e. PID)

\*SAMPLE MATRIX CODES

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

Container Type 6L

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

Relinquished By:

Date/Time

Received By:

Date/Time:



# AIR ANALYSIS

## CHAIN OF CUSTODY

PAGE 2 OF 2320 Forbes Blvd, Mansfield, MA 02048  
TEL: 508-822-9300 FAX: 508-822-3288**Project Information**Project Name: 30th Street Redevelopment Site  
Project Location: 37-24/28 30th Street  
Long Island City, NY 11101  
Project #: 1800522  
Project Manager: William J Fitchett  
ALPHA Quote #:**Client Information**Client: GEI Consultants, Inc. P.C.  
Address: 1000 New York Ave, Ste B  
Huntington Station, NY 11746  
Phone: 631-965-7636  
Fax:Email: wfitchett@geiconsultants.com These samples have been previously analyzed by AlphaOther Project Specific Requirements/Comments: CVOCs onlyProject-Specific Target Compound List:  Please copy Nick Recchia on results nrecchia@geiconsultants.comDate Rec'd in Lab: 12/15/22ALPHA Job #: L2270207**Report Information - Data Deliverables** FAX  
 ADEX  
Criteria Checker: Cat B  
(Default based on Regulatory Criteria Indicated)  
Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
Report to: (if different than Project Manager)  
(same)**Billing Information** Same as Client info PO #: 1800522**Regulatory Requirements/Report Limits**

State/Fed Program Res / Comm

**Turn-Around Time** Standard  RUSH (only confirmed if pre-approved)

Date Due: Time:

Do Not analyze can 633**ANALYSIS**TO-15 (CVOCs only)  
TO-15 SIM  
APH Sulfated Non-petroleum HCs  
Fixed Gases  
Sulfides & Mercaptans by TO-15**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15 (CVOCs only)	TO-15 SIM	APH Sulfated Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
70207-11	IA-10	12/14/22	928	923	-30.34	5.90	AA	WF	6L	2713	02212	X						
-12	DUP121422	12/14/22	928	923	-31.13	-9.89	AA	WF	6L	586	0960	Y						

**\*SAMPLE MATRIX CODES**AA = Ambient Air (Indoor/Outdoor)  
SV = Soil Vapor/Landfill Gas/SVE  
Other = Please SpecifyContainer Type 6L

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

Relinquished By:	Date/Time	Received By:	Date/Time
<u>W J Fitchett / GEI</u>	<u>12/14/22 12:50</u>	<u>[Signature]</u>	<u>12/14/22 10:50</u>
<u>[Signature]</u>	<u>12/14/22 12:36</u>	<u>[Signature]</u>	<u>12/14/22 2:00</u>
<u>[Signature]</u>	<u>12/15/22 08:40</u>	<u>[Signature]</u>	<u>12/15/22 02:40</u>

# **Supporting Documentation**

Project Name: 30TH STREET REDEVELOPMENT SITE

Lab Number: L2270207

Project Number: 1800522

Report Date: 12/23/22

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
L2270207-01	IA-1	02209	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.5	15
L2270207-01	IA-1	1970	6.0L Can	12/12/22	408418	L2267900-04	Pass	-29.8	-6.6	-	-	-	-
L2270207-02	IA-2	0629	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.3	10
L2270207-02	IA-2	1902	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.1	-7.5	-	-	-	-
L2270207-03	IA-3	02243	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.4	13
L2270207-03	IA-3	2620	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.2	-6.2	-	-	-	-
L2270207-04	IA-4	01178	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.3	10
L2270207-04	IA-4	2048	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.2	-5.2	-	-	-	-
L2270207-05	OA-1	02215	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.4	13
L2270207-05	OA-1	2830	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.1	-6.7	-	-	-	-
L2270207-06	IA-5	01625	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.3	10
L2270207-06	IA-5	2581	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.1	7.8	-	-	-	-
L2270207-07	IA-6	0061	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	9.2	102
L2270207-07	IA-6	2723	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.1	-7.3	-	-	-	-
L2270207-08	IA-7	0919	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.8	24



Project Name: 30TH STREET REDEVELOPMENT SITE

Lab Number: L2270207

Project Number: 1800522

Report Date: 12/23/22

### 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
L2270207-08	IA-7	694	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.1	-7.9	-	-	-	-
L2270207-09	IA-8	02224	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	7.4	85
L2270207-09	IA-8	1676	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.1	0.0	-	-	-	-
L2270207-10	IA-9	0985	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.5	15
L2270207-10	IA-9	3633	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.1	-6.5	-	-	-	-
L2270207-11	IA-10	02212	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.7	21
L2270207-11	IA-10	2713	6.0L Can	12/12/22	408418	L2267900-03	Pass	-30.1	-6.3	-	-	-	-
L2270207-12	DUP121422	0960	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.5	15
L2270207-12	DUP121422	586	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.1	-10.4	-	-	-	-
L2270207-13	UNUSED CAN #633	01892	Flow 5	12/12/22	408418		-	-	-	Pass	3.0	3.3	10
L2270207-13	UNUSED CAN #633	633	6.0L Can	12/12/22	408418	L2267900-04	Pass	-30.2	-30.4	-	-	-	-

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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03  
 Client ID: CAN 3910 SHELF 51  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/03/22 20:26  
 Analyst: TJS

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

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



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3910 SHELF 51      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03 Date Collected: 12/02/22 18:00  
 Client ID: CAN 3910 SHELF 51 Date Received: 12/03/22  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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
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



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03  
 Client ID: CAN 3910 SHELF 51  
 Sample Location:

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3910 SHELF 51      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03  
 Client ID: CAN 3910 SHELF 51  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/03/22 20:26  
 Analyst: TJS

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
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
Acrolein	ND	0.050	--	ND	0.115	--		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:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03 Date Collected: 12/02/22 18:00  
 Client ID: CAN 3910 SHELF 51 Date Received: 12/03/22  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-03      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3910 SHELF 51      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	120		60-140
bromochloromethane	121		60-140
chlorobenzene-d5	117		60-140



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04  
 Client ID: CAN 3918 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/03/22 21:04  
 Analyst: TJS

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

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



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3918 SHELF 52      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04 Date Collected: 12/02/22 18:00  
 Client ID: CAN 3918 SHELF 52 Date Received: 12/03/22  
 Sample Location: Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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
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



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04  
 Client ID: CAN 3918 SHELF 52  
 Sample Location:

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air</b>								
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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3918 SHELF 52      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

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

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



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04  
 Client ID: CAN 3918 SHELF 52  
 Sample Location:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/03/22 21:04  
 Analyst: TJS

Date Collected: 12/02/22 18:00  
 Date Received: 12/03/22  
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM								
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
Acrolein	ND	0.050	--	ND	0.115	--		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:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3918 SHELF 52      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1



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

**Lab Number:** L2267900  
**Report Date:** 12/23/22

### Air Canister Certification Results

Lab ID: L2267900-04      Date Collected: 12/02/22 18:00  
 Client ID: CAN 3918 SHELF 52      Date Received: 12/03/22  
 Sample Location:      Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM</b>								
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	124		60-140
bromochloromethane	123		60-140
chlorobenzene-d5	119		60-140



# Organics

# **Volatile Organics in Air TO-15 Low Level**

# **Volatiles QC Summary**

# Lab Duplicate Sample Summary

## Form 3

### Air Volatiles

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Client Sample ID	: IA-8	Matrix	: AIR
Lab Sample ID	: L2270207-09	Analysis Date	: 12/21/22 23:14
Lab File ID	: R204339	DUP File ID	: r204340
Dup Sample ID	: WG1726244-5	DUP Analysis Date	: 12/21/22 23:45

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Vinyl chloride	ND	ND	NC	25
1,1-Dichloroethene	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
cis-1,2-Dichloroethene	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25
1,1,1-Trichloroethane	ND	ND	NC	25
Trichloroethene	ND	ND	NC	25
Tetrachloroethene	ND	ND	NC	25



# Laboratory Control Sample Summary

## Form 3

### Air Volatiles

**Client** : GEI Consultants **Lab Number** : L2270207  
**Project Name** : 30TH STREET REDEVELOPMENT SITE **Project Number** : 1800522  
**Matrix** : AIR  
**LCS Sample ID** : WG1726244-3 **Analysis Date** : 12/21/22 13:55 **File ID** : r204327  
**LCSD Sample ID** : **Analysis Date** : **File ID** :

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R			
Vinyl chloride	10	9.83	98				-	70-130	-
1,1-Dichloroethene	10	11.8	118				-	70-130	-
trans-1,2-Dichloroethene	10	9.45	94				-	70-130	-
1,1-Dichloroethane	10	10.6	106				-	70-130	-
cis-1,2-Dichloroethene	10	11.0	110				-	70-130	-
1,2-Dichloroethane	10	12.0	120				-	70-130	-
1,1,1-Trichloroethane	10	11.0	110				-	70-130	-
Trichloroethene	10	10.7	107				-	70-130	-
Tetrachloroethene	10	7.29	73				-	70-130	-



# Method Blank Summary

## Form 4

### Air Volatiles

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab Sample ID	: WG1726244-4	Lab File ID	: r204329
Instrument ID	: AIRLAB20		
Matrix	: AIR	Analysis Date	: 12/21/22 15:56

Client Sample No.	Lab Sample ID	Analysis Date
WG1726244-3LCS	WG1726244-3	12/21/22 13:55
OA-1	L2270207-05	12/21/22 18:36
IA-1	L2270207-01	12/21/22 19:13
IA-2	L2270207-02	12/21/22 19:44
IA-3	L2270207-03	12/21/22 20:15
IA-4	L2270207-04	12/21/22 20:46
IA-5	L2270207-06	12/21/22 21:26
IA-6	L2270207-07	12/21/22 21:59
IA-8	L2270207-09	12/21/22 23:14
IA-8DUP	WG1726244-5	12/21/22 23:45
IA-9	L2270207-10	12/22/22 00:16
IA-10	L2270207-11	12/22/22 00:46
DUP121422	L2270207-12	12/22/22 01:19
IA-7	L2270207-08	12/22/22 08:31



**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Instrument ID	: AIRLAB20	Analysis Date	: 12/14/22 01:08
Tune Standard	: WG1723369-1	Tune File ID	: r204206_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	10.9
75	30.0 - 66.0% of mass 95	34.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5 (.8 )1
174	50.0 - 120.0% of mass 95	63.6
175	4.0 - 9.0% of mass 174	4.6 (7.2 )1
176	93.0 - 101% of mass 174	60.8 (95.7)1
177	5.0 - 9.0% of mass 176	4.2 (6.9 )2

1-Value is % of mass 174    2-Value is % of mass 176

**This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:**

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.2	R1643102-1	R204210	12/14/22 03:03
STD0.5	R1643102-2	R204211	12/14/22 03:33
STD1.0	R1643102-3	R204212	12/14/22 04:05
STD020	R1643102-4	R204215	12/14/22 05:40
STD050	R1643102-5	R204216	12/14/22 06:11
STD100	R1643102-6	R204217	12/14/22 06:44
STD5.0	R1643102-7	R204219	12/14/22 10:00
STD010	R1643102-8	R204220	12/14/22 10:33
ICV QUANT	R1643102-9	R204223	12/14/22 13:12



**Instrument Performance Check (Tune) Summary  
Form 5  
Air Volatiles  
Bromofluorobenzene (BFB)**

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Instrument ID	: AIRLAB20	Analysis Date	: 12/21/22 12:45
Tune Standard	: WG1726244-1	Tune File ID	: r204325_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	13.9
75	30.0 - 66.0% of mass 95	38.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.5 (.9 )1
174	50.0 - 120.0% of mass 95	53.2
175	4.0 - 9.0% of mass 174	4.1 (7.7 )1
176	93.0 - 101% of mass 174	51.8 (97.3)1
177	5.0 - 9.0% of mass 176	3.4 (6.5 )2

1-Value is % of mass 174    2-Value is % of mass 176

**This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:**

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1726244-2CCAL	WG1726244-2	R204327	12/21/22 13:55
WG1726244-3LCS	WG1726244-3	R204327	12/21/22 13:55
WG1726244-4BLANK	WG1726244-4	R204329	12/21/22 15:56
OA-1	L2270207-05	R204331	12/21/22 18:36
IA-1	L2270207-01	R204332	12/21/22 19:13
IA-2	L2270207-02	R204333	12/21/22 19:44
IA-3	L2270207-03	R204334	12/21/22 20:15
IA-4	L2270207-04	R204335	12/21/22 20:46
IA-5	L2270207-06	R204336	12/21/22 21:26
IA-6	L2270207-07	R204337	12/21/22 21:59
IA-8	L2270207-09	R204339	12/21/22 23:14
WG1726244-5DUP	WG1726244-5	R204340	12/21/22 23:45
IA-9	L2270207-10	R204341	12/22/22 00:16
IA-10	L2270207-11	R204342	12/22/22 00:46
DUP121422	L2270207-12	R204343	12/22/22 01:19
IA-7	L2270207-08	R204344	12/22/22 08:31



**Internal Standard Area and RT Summary**  
**Form 8a**  
**Air Volatiles**

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Instrument ID : AIRLAB20	Analysis Date : 12/21/22 13:55:00
Sample No : WG1726244-2	Lab File ID : R204327

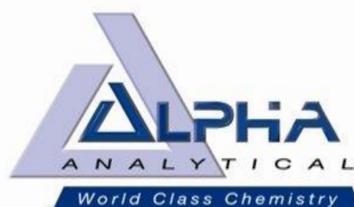
	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1726244-2	367526	4.37	1206052	5.29	171983	7.28
Upper Limit	514536	4.70	1688473	5.62	240776	7.61
Lower Limit	220516	4.04	723631	4.96	103190	6.95
<b>Sample ID</b>						
WG1726244-3 LCS	367526	4.37	1206052	5.29	171983	7.28
WG1726244-4 BLANK	345692	4.37	1152654	5.29	166571	7.28
OA-1	345861	4.37	1106303	5.29	165412	7.28
IA-1	344340	4.37	1109181	5.29	165410	7.28
IA-2	347691	4.37	1112214	5.29	167560	7.28
IA-3	349678	4.37	1115637	5.29	169856	7.28
IA-4	342999	4.37	1117301	5.29	166853	7.28
IA-5	340702	4.37	1104388	5.29	166315	7.28
IA-6	338280	4.37	1098761	5.29	167765	7.28
IA-8	335629	4.37	1092438	5.29	165346	7.28
IA-8 DUP	328984	4.37	1068336	5.29	162256	7.28
IA-9	334967	4.37	1085545	5.29	165066	7.28
IA-10	329630	4.37	1079498	5.29	162619	7.28
DUP121422	334358	4.37	1089177	5.29	166730	7.28
IA-7	333663	4.37	1030244	5.29	157498	7.28

Area Upper Limit = +40% of internal standard area  
Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT  
RT Lower Limit = -0.33 minutes of internal standard RT

\* Values outside of QC limits





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 1

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days  
 Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.2	0.0501	ppbV	70-130			25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.2	0.0614	ppbV	70-130			25	25			
1,1,2-Trichloroethane	79-00-5	0.2	0.067	ppbV	70-130			25	25			
1,1-Dichloroethane	75-34-3	0.2	0.0628	ppbV	70-130			25	25			
1,1-Dichloroethene	75-35-4	0.2	0.0643	ppbV	70-130			25	25			
1,2,3-Trimethylbenzene	526-73-8	0.2	0.0576	ppbV	70-130			25	25			
1,2,4-Trichlorobenzene	120-82-1	0.2	0.0674	ppbV	70-130			25	25			
1,2,4-Trimethylbenzene	95-63-6	0.2	0.0368	ppbV	70-130			25	25			
1,2,4,5-Tetramethylbenzene	95-93-2	0.2	0.0604	ppbV	70-130			25	25			
1,2-Dibromoethane	106-93-4	0.2	0.0561	ppbV	70-130			25	25			
1,2-Dichlorobenzene	95-50-1	0.2	0.0628	ppbV	70-130			25	25			
1,2-Dichloroethane	107-06-2	0.2	0.0602	ppbV	70-130			25	25			
1,2-Dichloropropane	78-87-5	0.2	0.061	ppbV	70-130			25	25			
1,3,5-Trimethylbenzene	108-67-8	0.2	0.0675	ppbV	70-130			25	25			
1,3-Butadiene	106-99-0	0.2	0.067	ppbV	70-130			25	25			
1,3-Dichlorobenzene	541-73-1	0.2	0.0627	ppbV	70-130			25	25			
1,4-Dichlorobenzene	106-46-7	0.2	0.0636	ppbV	70-130			25	25			
1,4-Dioxane	123-91-1	0.2	0.0805	ppbV	70-130			25	25			
2,2,4-Trimethylpentane	540-84-1	0.2	0.0361	ppbV	70-130			25	25			
2-Butanone	78-93-3	0.5	0.0482	ppbV	70-130			25	25			
2-Hexanone	591-78-6	0.2	0.0648	ppbV	70-130			25	25			
2-Methylthiophene	554-14-3	0.2	0.0524	ppbV	70-130			25	25			
3-Methylthiophene	616-44-4	0.2	0.0393	ppbV	70-130			25	25			
3-Chloropropene	107-05-1	0.2	0.0585	ppbV	70-130			25	25			
2-Ethylthiophene	872-55-9	0.2	0.0407	ppbV	70-130			25	25			
4-Ethyltoluene	622-96-8	0.2	0.037	ppbV	70-130			25	25			
Acetone	67-64-1	1	0.689	ppbV	40-160			25	25			
Benzene	71-43-2	0.2	0.0487	ppbV	70-130			25	25			
Benzyl chloride	100-44-7	0.2	0.0482	ppbV	70-130			25	25			
Benzothiophene	95-15-8	0.5	0.077	ppbV	70-130			25	25			
Bromodichloromethane	75-27-4	0.2	0.0504	ppbV	70-130			25	25			
Bromoform	75-25-2	0.2	0.0641	ppbV	70-130			25	25			
Bromomethane	74-83-9	0.2	0.0773	ppbV	70-130			25	25			
Carbon disulfide	75-15-0	0.2	0.0559	ppbV	70-130			25	25			
Carbon tetrachloride	56-23-5	0.2	0.0499	ppbV	70-130			25	25			
Chlorobenzene	108-90-7	0.2	0.0624	ppbV	70-130			25	25			
Chloroethane	75-00-3	0.2	0.0805	ppbV	70-130			25	25			
Chloroform	67-66-3	0.2	0.0633	ppbV	70-130			25	25			
Chloromethane	74-87-3	0.2	0.0689	ppbV	70-130			25	25			
cis-1,2-Dichloroethene	156-59-2	0.2	0.117	ppbV	70-130			25	25			
cis-1,3-Dichloropropene	10061-01-5	0.2	0.0409	ppbV	70-130			25	25			
Cyclohexane	110-82-7	0.2	0.0368	ppbV	70-130			25	25			

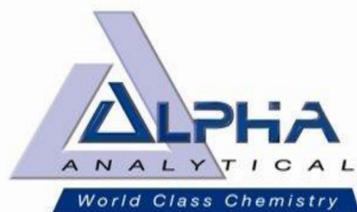
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)  
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 2

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days  
 Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dibromochloromethane	124-48-1	0.2	0.0614	ppbV	70-130			25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0583	ppbV	70-130			25	25			
Ethyl Alcohol	64-17-5	5	0.733	ppbV	40-160			25	25			
Ethyl Acetate	141-78-6	0.5	0.122	ppbV	70-130			25	25			
Ethylbenzene	100-41-4	0.2	0.0432	ppbV	70-130			25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.2	0.0656	ppbV	70-130			25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.2	0.0591	ppbV	70-130			25	25			
Hexachlorobutadiene	87-68-3	0.2	0.0529	ppbV	70-130			25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.478	ppbV	40-160			25	25			
Methylene chloride	75-09-2	0.5	0.134	ppbV	70-130			25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.0421	ppbV	70-130			25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0525	ppbV	70-130			25	25			
Methyl Methacrylate	80-62-6	0.5	0.0697	ppbV	40-160			25	25			
p/m-Xylene	179601-23-1	0.4	0.091	ppbV	70-130			25	25			
o-Xylene	95-47-6	0.2	0.0453	ppbV	70-130			25	25			
Xylene (Total)	1330-20-7	0.2	0.0453	ppbV				25	25			
Heptane	142-82-5	0.2	0.047	ppbV	70-130			25	25			
n-Heptane	142-82-5	0.2	0.047	ppbV	70-130			25	25			
n-Hexane	110-54-3	0.2	0.0364	ppbV	70-130			25	25			
Propylene	115-07-1	0.5	0.0599	ppbV	70-130			25	25			
Styrene	100-42-5	0.2	0.0434	ppbV	70-130			25	25			
Tetrachloroethene	127-18-4	0.2	0.0655	ppbV	70-130			25	25			
Thiophene	110-02-1	0.2	0.0389	ppbV	70-130			25	25			
Tetrahydrofuran	109-99-9	0.5	0.0568	ppbV	70-130			25	25			
Toluene	108-88-3	0.2	0.052	ppbV	70-130			25	25			
trans-1,2-Dichloroethene	156-60-5	0.2	0.0643	ppbV	70-130			25	25			
1,2-Dichloroethene (total)	540-59-0	0.2	0.0643	ppbV				25	25			
trans-1,3-Dichloropropene	10061-02-6	0.2	0.0436	ppbV	70-130			25	25			
1,3-Dichloropropene, Total	542-75-6	0.2	0.0409	ppbV				25	25			
Trichloroethene	79-01-6	0.2	0.0505	ppbV	70-130			25	25			
Trichlorofluoromethane	75-69-4	0.2	0.0686	ppbV	70-130			25	25			
Vinyl acetate	108-05-4	1	0.0479	ppbV	70-130			25	25			
Vinyl bromide	593-60-2	0.2	0.0717	ppbV	70-130			25	25			
Vinyl chloride	75-01-4	0.2	0.0627	ppbV	70-130			25	25			
Naphthalene	91-20-3	0.2	0.0885	ppbV	70-130			25	25			
Total HC As Hexane	NONE	10	0.0364	ppbV	70-130			25	25			
Total VOCs As Toluene	NONE	10	0.052	ppbV	70-130			25	25			
Propane	74-98-6	0.5	0.132	ppbV	70-130			25	25			
Acrylonitrile	107-13-1	0.5	0.0555	ppbV	70-130			25	25			
Acrolein	107-02-8	0.5	0.0596	ppbV	60-113			25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.2	0.0561	ppbV	70-130			25	25			
Isopropylbenzene	98-82-8	0.2	0.0491	ppbV	70-130			25	25			

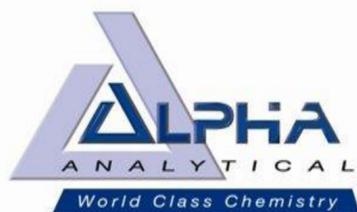
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)  
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA





Date Created: 02/18/22  
 Created By: Jason Hebert  
 File: PM11916-1  
 Page: 3

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days  
 Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,2,3-Trichloropropane	96-18-4	0.2	0.061	ppbV	70-130			25	25			
Acetonitrile	75-05-8	0.2	0.082	ppbV	70-130			25	25			
Bromobenzene	108-86-1	0.2	0.0613	ppbV	70-130			25	25			
Chlorodifluoromethane	75-45-6	0.2	0.0584	ppbV	70-130			25	25			
Dichlorofluoromethane	75-43-4	0.2	0.0807	ppbV	70-130			25	25			
Dibromomethane	74-95-3	0.2	0.0563	ppbV	70-130			25	25			
Pentane	109-66-0	0.2	0.0659	ppbV	70-130			25	25			
Octane	111-65-9	0.2	0.0445	ppbV	70-130			25	25			
Tertiary-Amyl Methyl Ether	994-05-8	0.2	0.0476	ppbV	70-130			25	25			
o-Chlorotoluene	95-49-8	0.2	0.0486	ppbV	70-130			25	25			
p-Chlorotoluene	106-43-4	0.2	0.056	ppbV	70-130			25	25			
2,2-Dichloropropane	594-20-7	0.2	0.0458	ppbV	70-130			25	25			
1,1-Dichloropropene	563-58-6	0.2	0.0457	ppbV	70-130			25	25			
Isopropyl Ether	108-20-3	0.2	0.0621	ppbV	70-130			25	25			
Ethyl-Tert-Butyl-Ether	637-92-3	0.2	0.0422	ppbV	70-130			25	25			
1,2,3-Trichlorobenzene	87-61-6	0.2	0.0715	ppbV	70-130			25	25			
Ethyl ether	60-29-7	0.2	0.0737	ppbV	70-130			25	25			
n-Butylbenzene	104-51-8	0.2	0.044	ppbV	70-130			25	25			
sec-Butylbenzene	135-98-8	0.2	0.0429	ppbV	70-130			25	25			
tert-Butylbenzene	98-06-6	0.2	0.042	ppbV	70-130			25	25			
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.0495	ppbV	70-130			25	25			
p-Isopropyltoluene	99-87-6	0.2	0.052	ppbV	70-130			25	25			
n-Propylbenzene	103-65-1	0.2	0.0419	ppbV	70-130			25	25			
1,3-Dichloropropane	142-28-9	0.2	0.106	ppbV	70-130			25	25			
Methanol	67-56-1	5	1.84	ppbV	70-130			25	25			
Acetaldehyde	75-07-0	2.5	0.444	ppbV	70-130			25	25			
Butane	106-97-8	0.2	0.0646	ppbV	70-130			25	25			
Nonane (C9)	111-84-2	0.2	0.0463	ppbV	70-130			25	25			
Decane (C10)	124-18-5	0.2	0.0404	ppbV	70-130			25	25			
Undecane	1120-21-4	0.2	0.0427	ppbV	70-130			25	25			
Indane	496-11-7	0.2	0.0507	ppbV	70-130			25	25			
Indene	95-13-6	0.2	0.0433	ppbV	70-130			25	25			
1-Methylnaphthalene	90-12-0	1	0.466	ppbV	70-130			25	25			
Dodecane (C12)	112-40-3	0.2	0.0658	ppbV	70-130			25	25			
Butyl Acetate	123-86-4	0.5	0.126	ppbV	70-130			25	25			
tert-Butyl Alcohol	75-65-0	0.5	0.0466	ppbV	70-130			25	25			
2-Methylnaphthalene	91-57-6	1	0.393	ppbV	70-130			25	25			
1,2-Dichloroethane-d4	17060-07-0										70-130	
Toluene-d8	2037-26-5										70-130	
Bromofluorobenzene	460-00-4										70-130	

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)  
 Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



8 Walkup Drive, Westborough, Massachusetts 01581 • 508-898-9220 • www.alphalab.com

Westborough, MA • Mansfield, MA • Bangor, ME • Portsmouth, NH • Mahwah, NJ • Albany, NY • Buffalo, NY • Holmes, PA



# **Volatiles Sample Data**

# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-01  
**Client ID** : IA-1  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204332  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:05  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 19:13  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-02	Date Collected : 12/14/22 08:48
Client ID : IA-2	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/21/22 19:44
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204333	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-03  
**Client ID** : IA-3  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204334  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:06  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 20:15  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-04  
**Client ID** : IA-4  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204335  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:07  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 20:46  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-05  
**Client ID** : OA-1  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204331  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:04  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 18:36  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-06	Date Collected	: 12/14/22 07:08
Client ID	: IA-5	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/21/22 21:26
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204336	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-07  
**Client ID** : IA-6  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204337  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:09  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 21:59  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-08	Date Collected	: 12/14/22 07:25
Client ID	: IA-7	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/22/22 08:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204344	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-09  
**Client ID** : IA-8  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204339  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:11  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 23:14  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-10  
**Client ID** : IA-9  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204341  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:13  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/22/22 00:16  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : L2270207-11  
**Client ID** : IA-10  
**Sample Location** : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204342  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 09:23  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/22/22 00:46  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-12	Date Collected : 12/14/22 09:23
Client ID : DUP121422	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/22/22 01:19
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204343	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : WG1726244-4	Date Collected : NA
Client ID : WG1726244-4BLANK	Date Received : NA
Sample Location :	Date Analyzed : 12/21/22 15:56
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204329	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary

## Form 1

### Volatile Organics in Air

**Client** : GEI Consultants  
**Project Name** : 30TH STREET REDEVELOPMENT SITE  
**Lab ID** : WG1726244-5  
**Client ID** : IA-8DUP  
**Sample Location** :  
**Sample Matrix** : AIR  
**Analytical Method** : 48,TO-15  
**Lab File ID** : R204340  
**Sample Amount** : 250 ml

**Lab Number** : L2270207  
**Project Number** : 1800522  
**Date Collected** : 12/14/22 07:11  
**Date Received** : 12/14/22  
**Date Analyzed** : 12/21/22 23:45  
**Dilution Factor** : 1  
**Analyst** : RAY  
**Instrument ID** : AIRLAB20  
**GC Column** : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204331.D  
 Acq On : 21 Dec 2022 6:36 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-05,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:20:36 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	345861	10.000	ppbV	-0.01
Standard Area = 367526			Recovery =		94.11%	
43) 1,4-difluorobenzene	5.29	114	1106303	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		91.73%	
67) chlorobenzene-D5	7.28	54	165412	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		96.18%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D. d	
42) 1,2-dichloroethane	0.00		0		N.D. d	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1184	0.037	ppbV	92

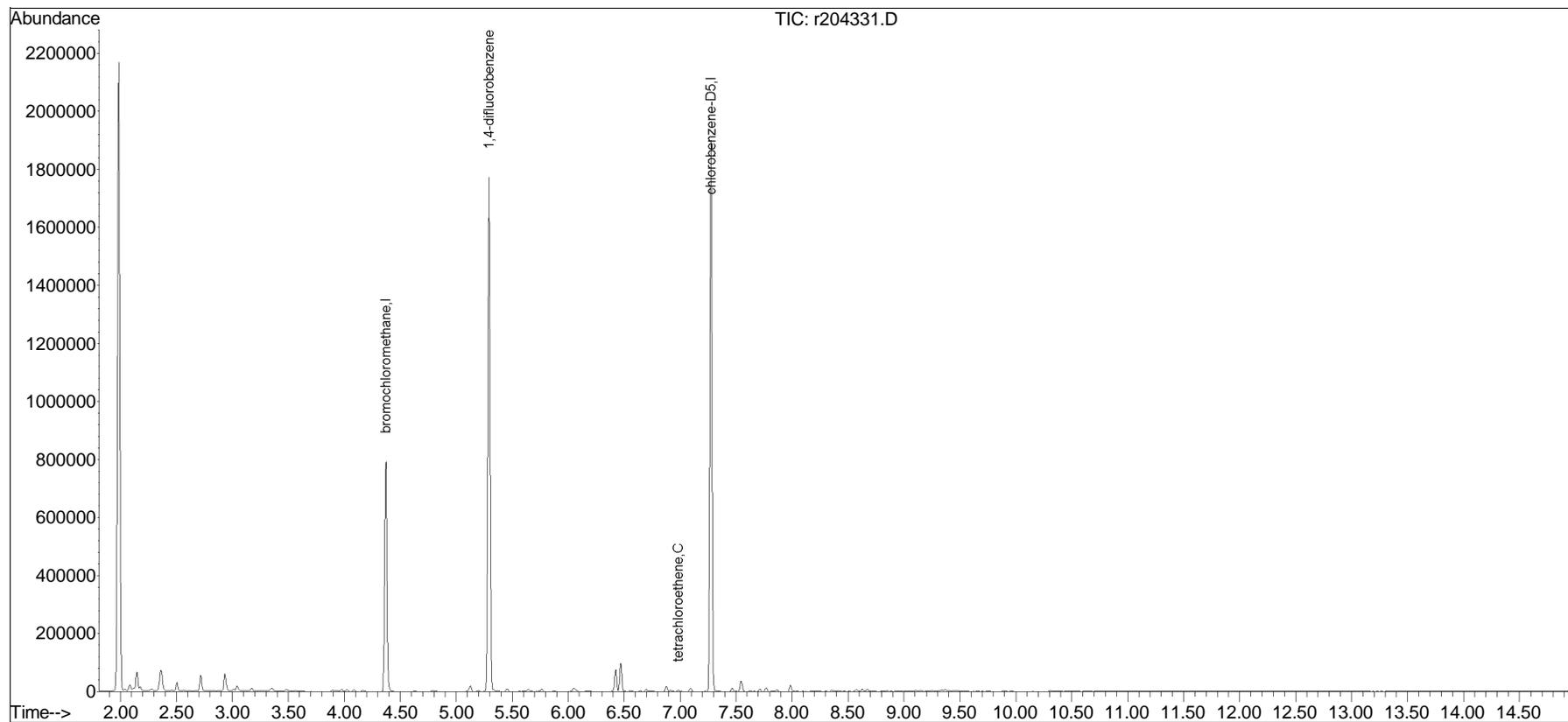
(#) = qualifier out of range (m) = manual integration (+) = signals summed

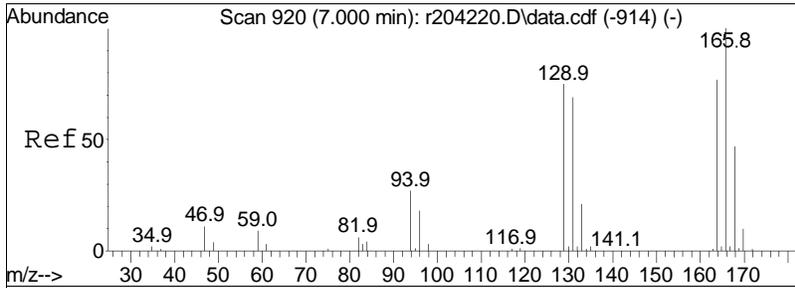
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204331.D  
Acq On : 21 Dec 2022 6:36 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-05,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:20:36 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

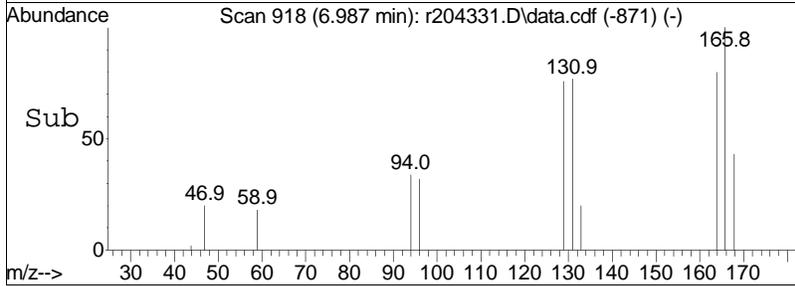
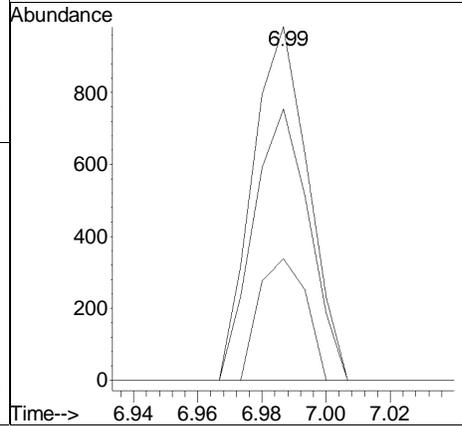
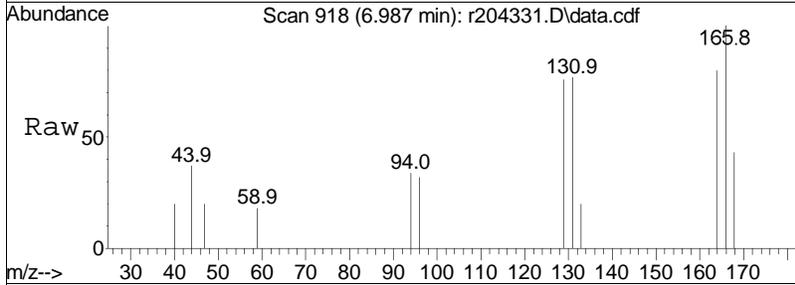
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D





#78  
 tetrachloroethene  
 Concen: 0.04 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204331.D  
 Acq: 21 Dec 2022 6:36 PM

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	1184		
131	76.7	55.8	83.6	
94	34.4	24.0	36.0	



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204331.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:6: 6 Instrument :  
Sample : L2270207-05,3,250,250 Quant Date : 12/22/2022 8:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204332.D  
 Acq On : 21 Dec 2022 7:13 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-01,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:21:07 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	344340	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		93.69%	
43) 1,4-difluorobenzene	5.29	114	1109181	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		91.97%	
67) chlorobenzene-D5	7.28	54	165410	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		96.18%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	576	0.022	ppbV #	84
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1513	0.048	ppbV #	80

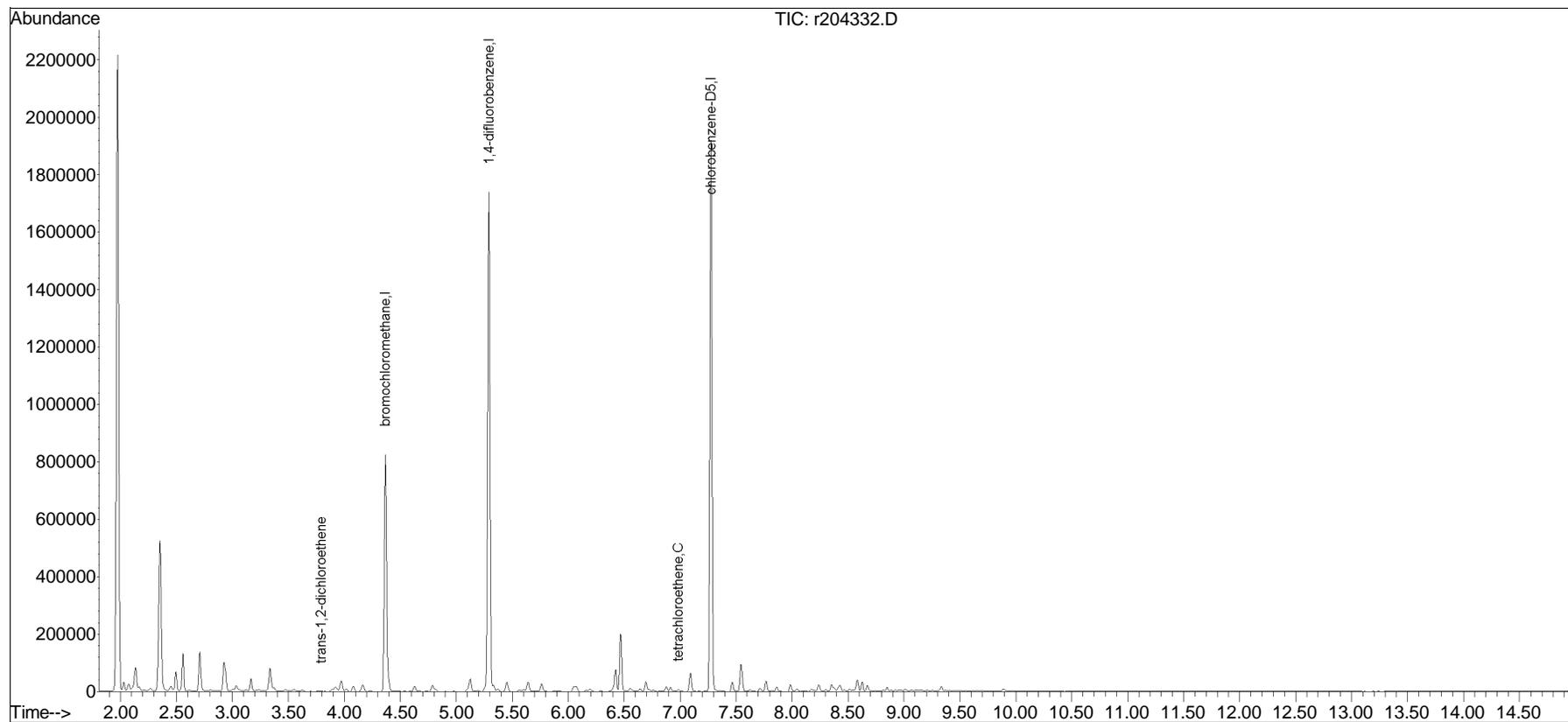
(#) = qualifier out of range (m) = manual integration (+) = signals summed

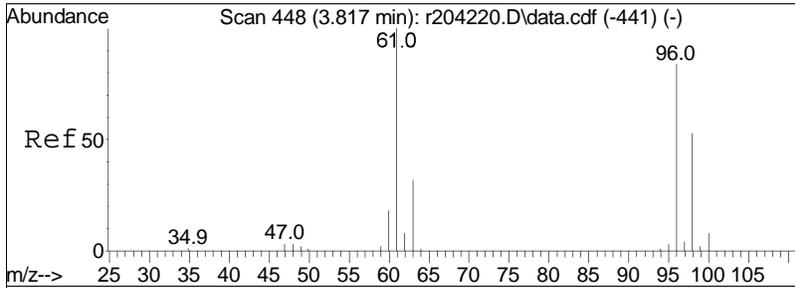
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204332.D  
Acq On : 21 Dec 2022 7:13 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-01,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:21:07 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

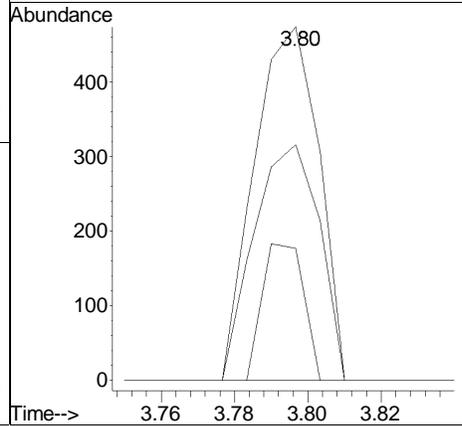
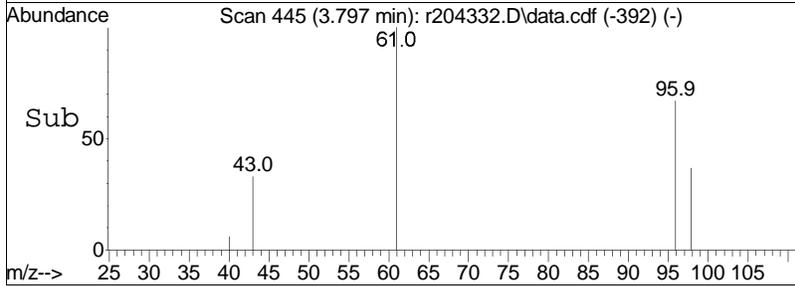
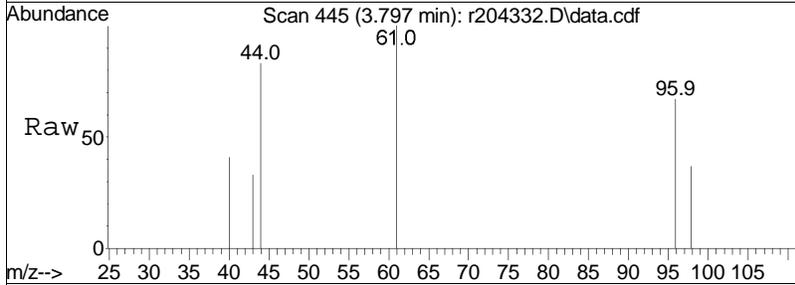
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

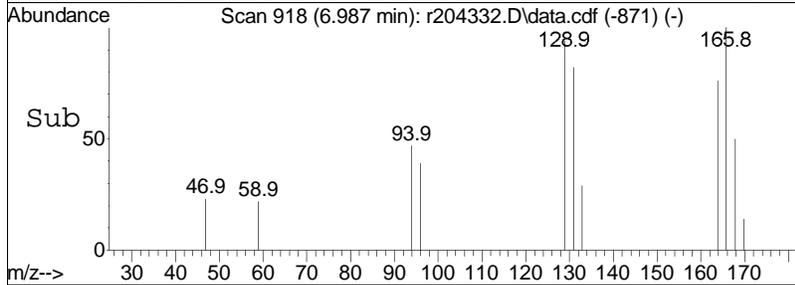
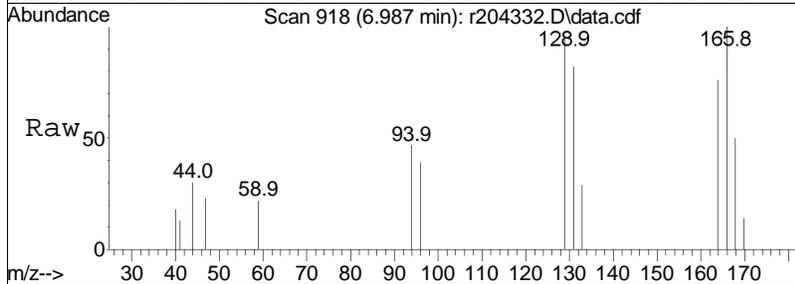
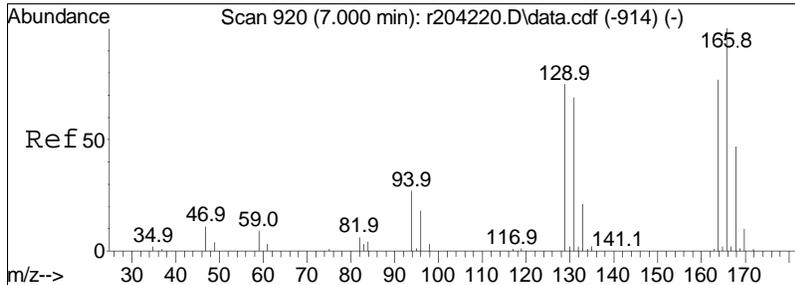




#32  
 trans-1,2-dichloroethene  
 Concen: 0.02 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204332.D  
 Acq: 21 Dec 2022 7:13 PM

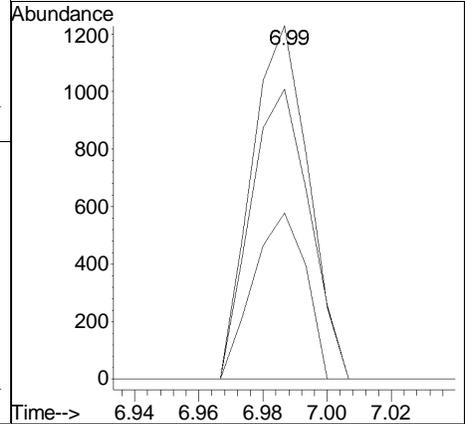
Tgt Ion	Ratio	Lower	Upper
61	100		
96	66.7	63.7	95.5
98	37.3	40.4	60.6#





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204332.D  
 Acq: 21 Dec 2022 7:13 PM

Tgt Ion	Resp	Lower	Upper
166	1513		
166	100		
131	82.1	55.8	83.6
94	47.0	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204332.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:7: 3 Instrument :  
Sample : L2270207-01,3,250,250 Quant Date : 12/22/2022 8:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204333.D  
 Acq On : 21 Dec 2022 7:44 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-02,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:21:40 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	347691	10.000	ppbV	-0.01
Standard Area = 367526			Recovery =		94.60%	
43) 1,4-difluorobenzene	5.29	114	1112214	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		92.22%	
67) chlorobenzene-D5	7.28	54	167560	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		97.43%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	431	0.016	ppbV	# 93
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1794	0.056	ppbV	# 82

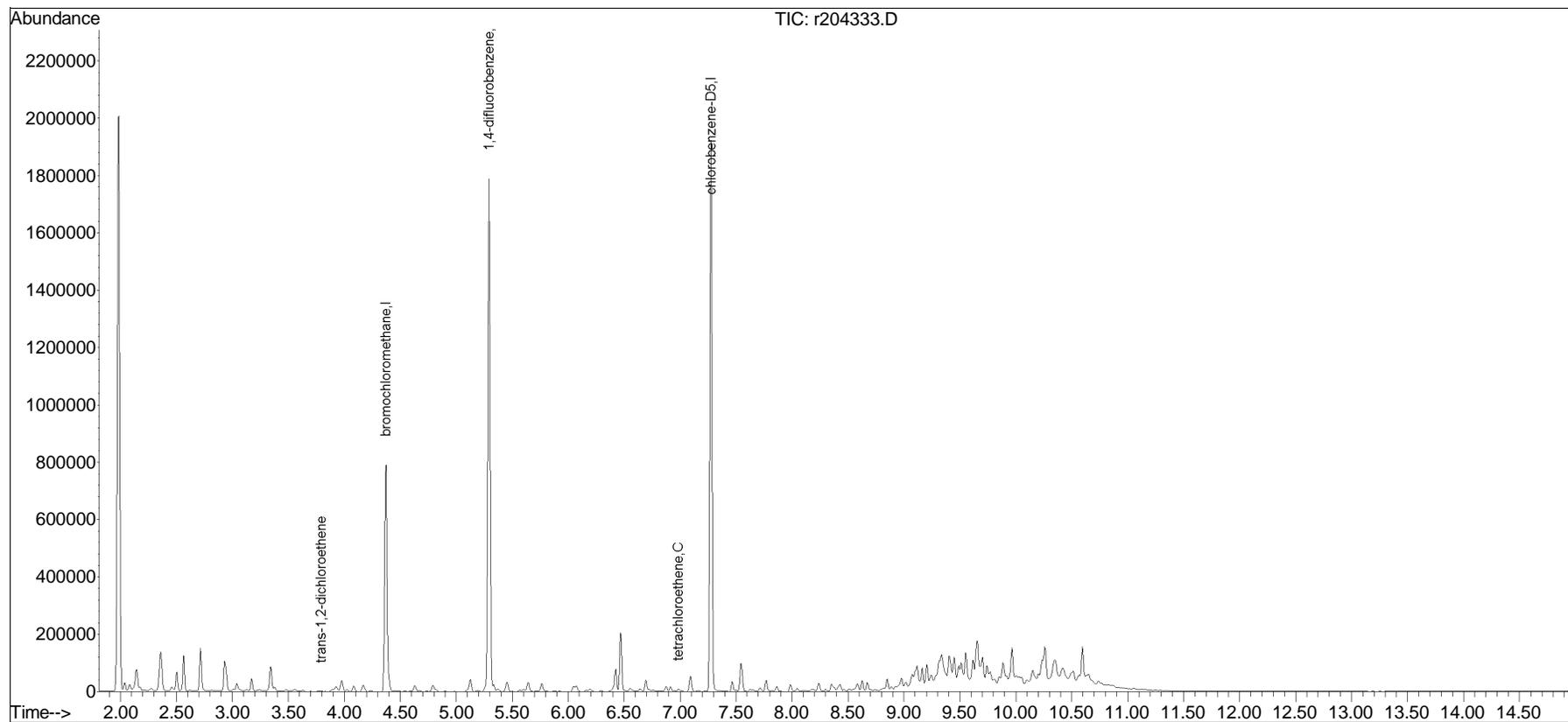
(#) = qualifier out of range (m) = manual integration (+) = signals summed

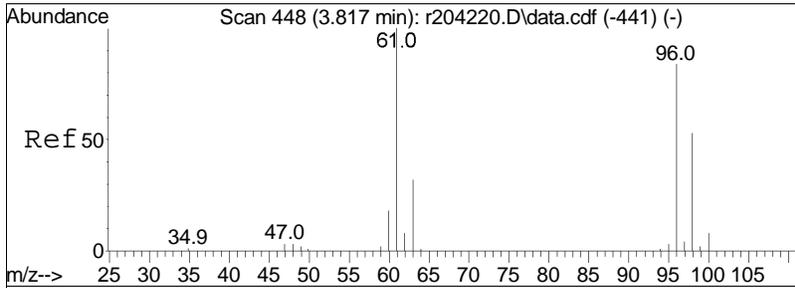
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204333.D  
Acq On : 21 Dec 2022 7:44 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-02,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:21:40 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

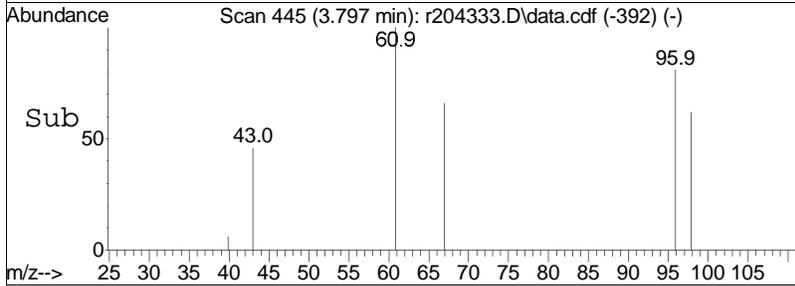
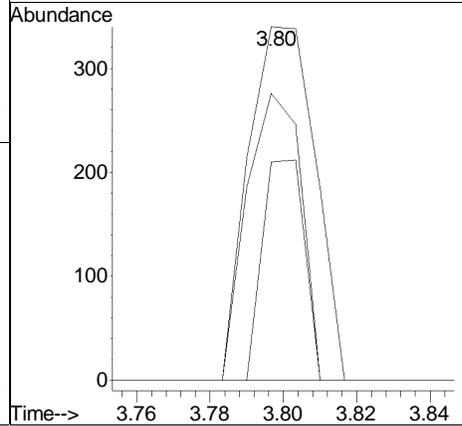
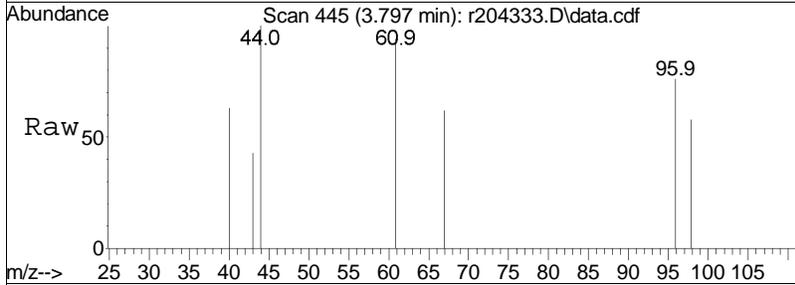
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

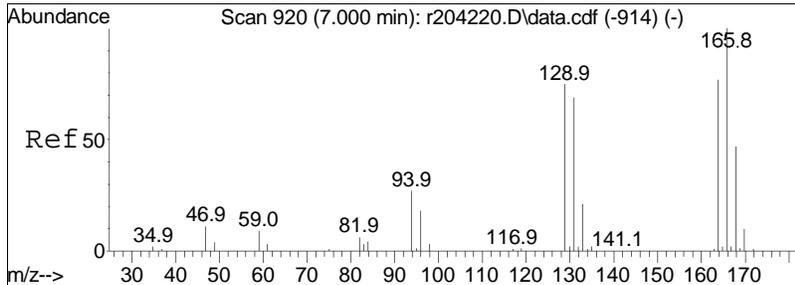




#32  
 trans-1,2-dichloroethene  
 Concen: 0.02 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204333.D  
 Acq: 21 Dec 2022 7:44 PM

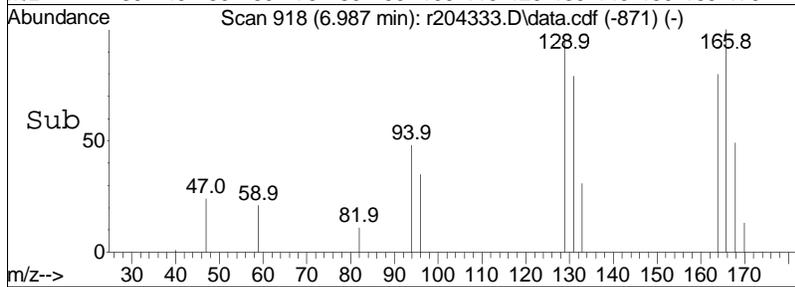
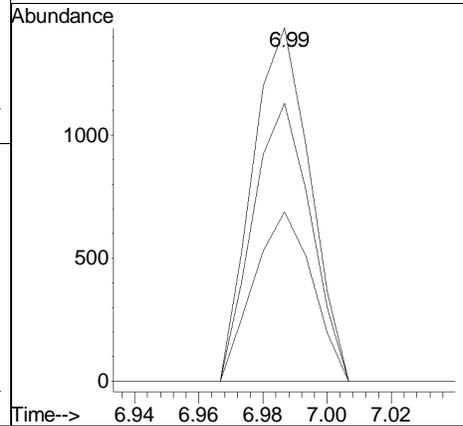
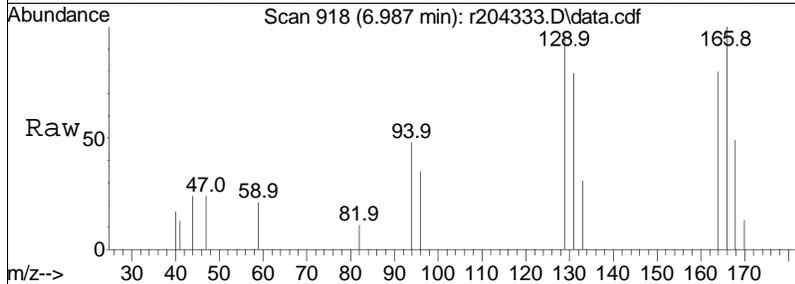
Tgt Ion	Ratio	Lower	Upper
61	100		
96	81.2	63.7	95.5
98	61.8	40.4	60.6#





#78  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204333.D  
 Acq: 21 Dec 2022 7:44 PM

Tgt Ion	Resp	Lower	Upper
166	100		
131	78.6	55.8	83.6
94	48.0	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204333.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:7: 4 Instrument :  
Sample : L2270207-02,3,250,250 Quant Date : 12/22/2022 8:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204334.D  
 Acq On : 21 Dec 2022 8:15 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-03,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:22:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	349678	10.000	ppbV	-0.02
Standard Area = 367526			Recovery = 95.14%			
43) 1,4-difluorobenzene	5.29	114	1115637	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery = 92.50%			
67) chlorobenzene-D5	7.28	54	169856	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery = 98.76%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	d
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1705	0.052	ppbV	# 87

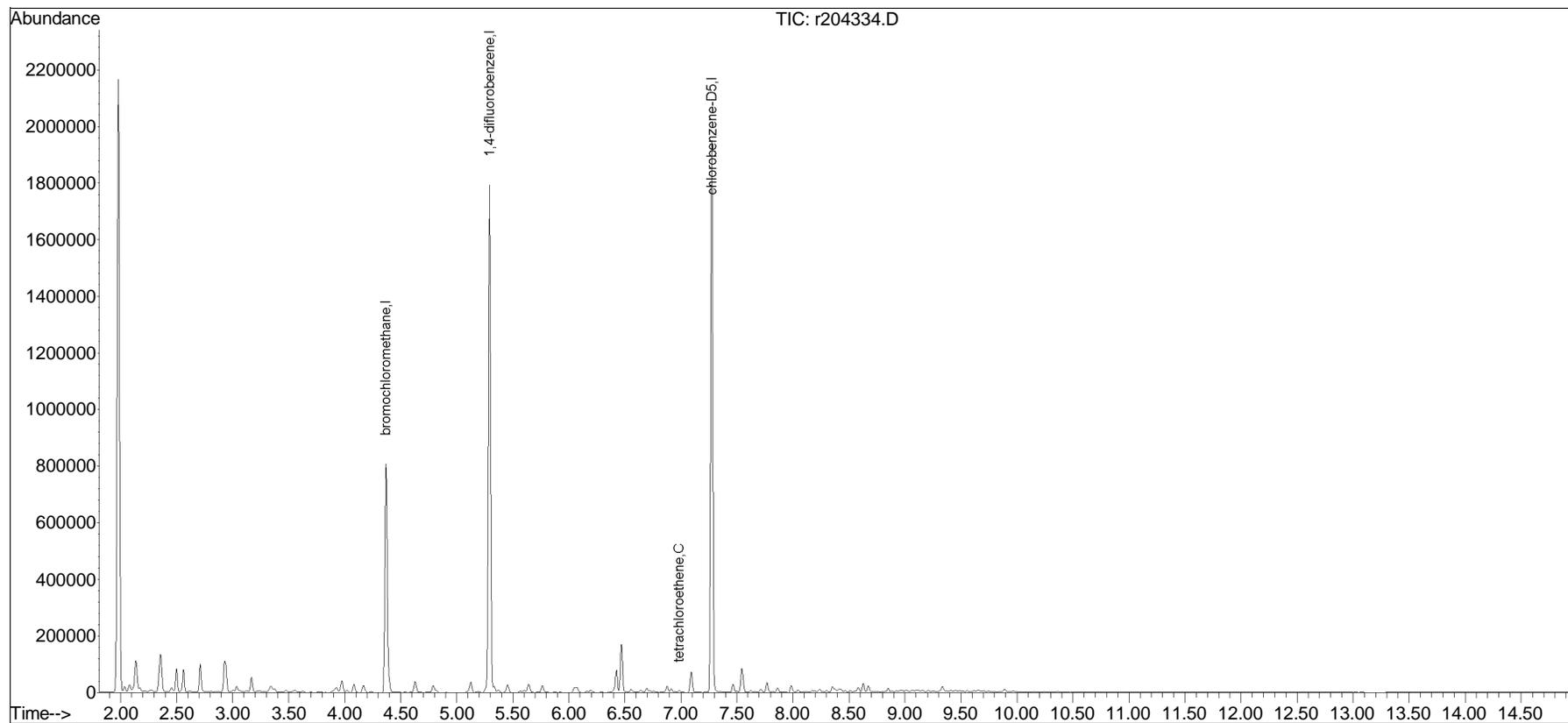
(#) = qualifier out of range (m) = manual integration (+) = signals summed

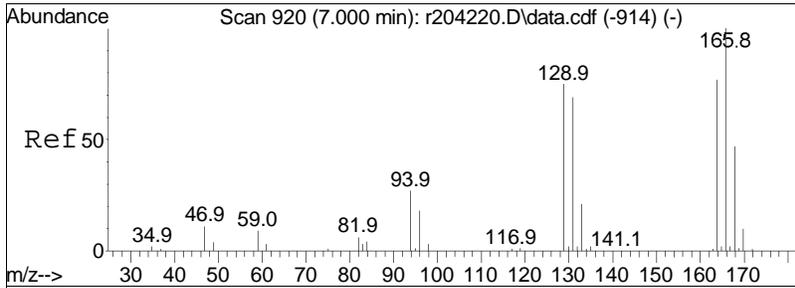
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204334.D  
Acq On : 21 Dec 2022 8:15 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-03,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:22:13 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

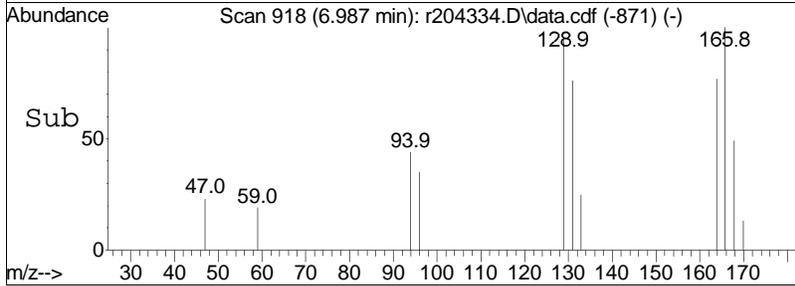
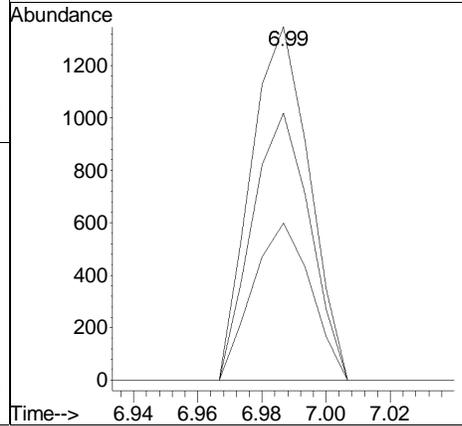
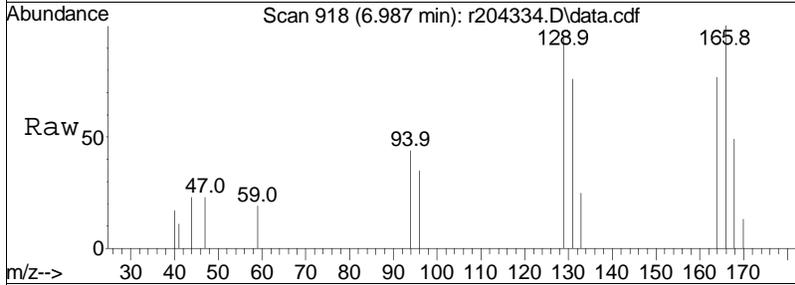
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204334.D  
 Acq: 21 Dec 2022 8:15 PM

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	1705		
131	75.6		55.8	83.6
94	44.5		24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204334.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:8: 5 Instrument :  
Sample : L2270207-03,3,250,250 Quant Date : 12/22/2022 8:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204335.D  
 Acq On : 21 Dec 2022 8:46 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-04,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:22:46 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	4.37	49	342999	10.000	ppbV	-0.01
Standard Area = 367526			Recovery =		93.33%	
43) 1,4-difluorobenzene	5.29	114	1117301	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		92.64%	
67) chlorobenzene-D5	7.28	54	166853	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		97.02%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	d
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1686	0.053	ppbV	# 91

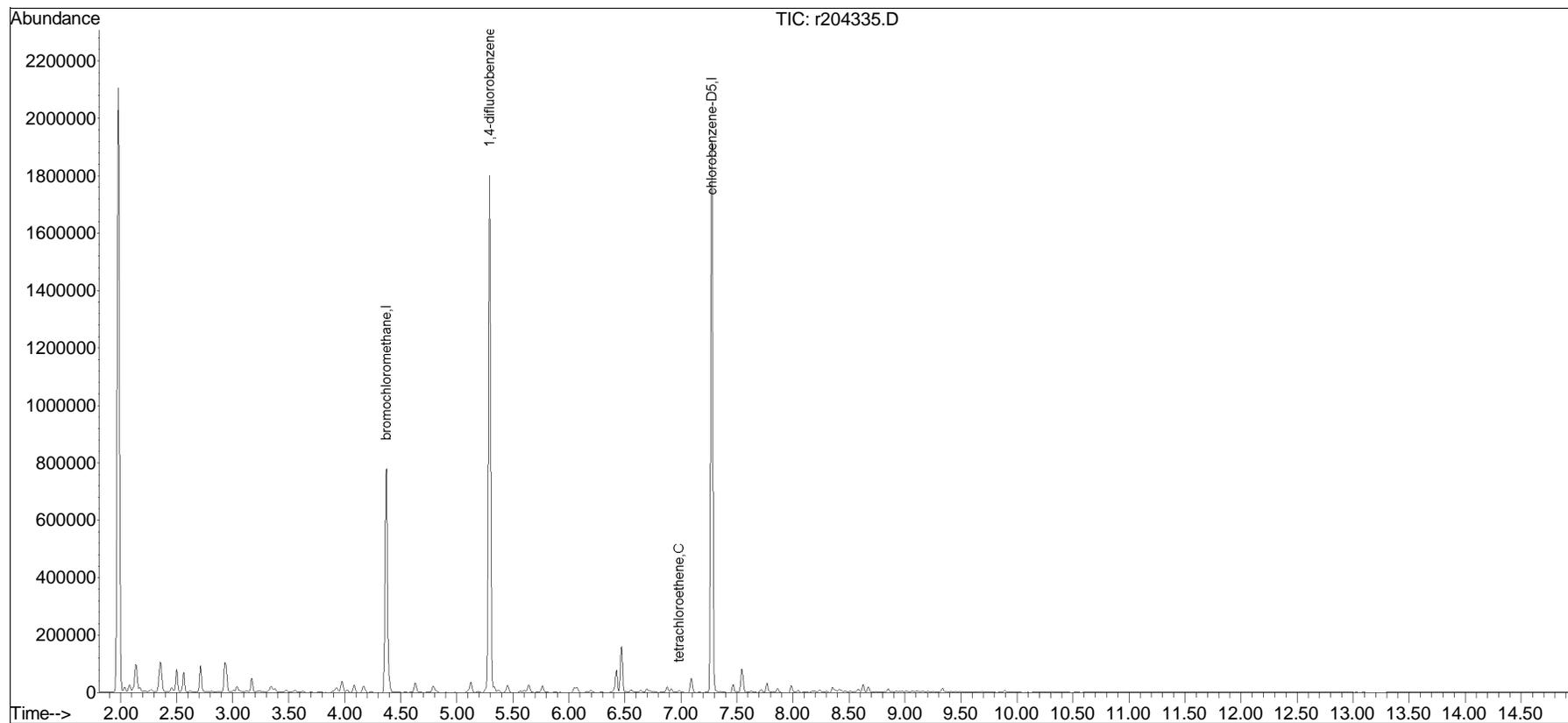
(#) = qualifier out of range (m) = manual integration (+) = signals summed

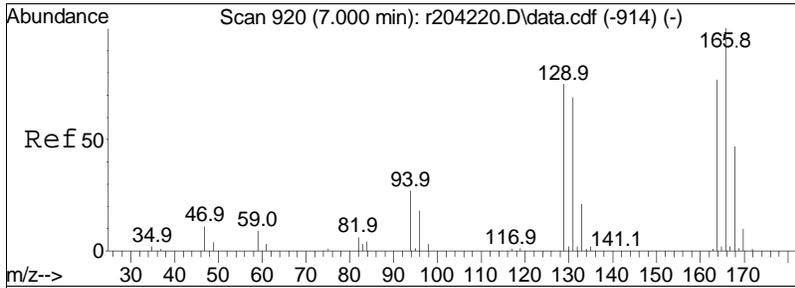
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204335.D  
Acq On : 21 Dec 2022 8:46 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-04,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:22:46 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

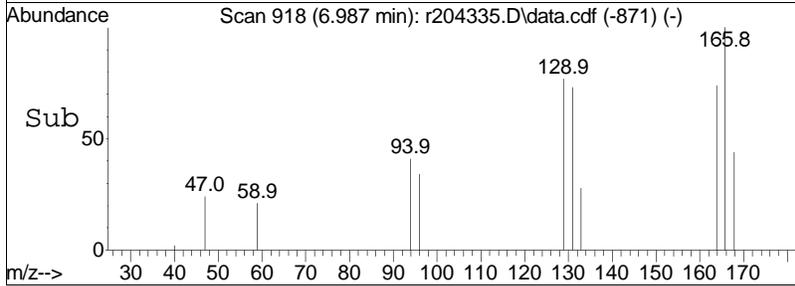
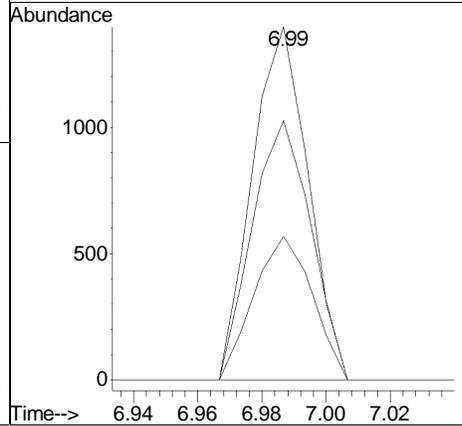
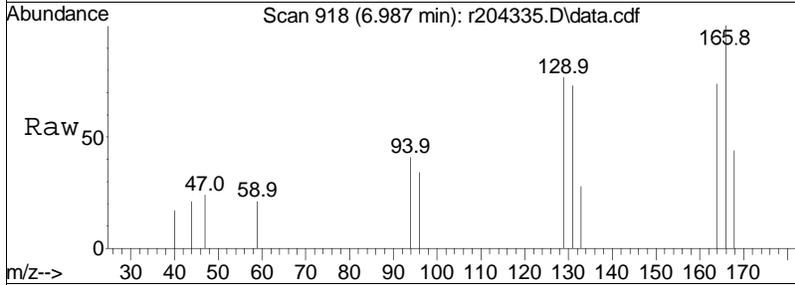
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204335.D  
 Acq: 21 Dec 2022 8:46 PM

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	1686		
131	73.4	55.8	83.6	
94	40.7	24.0	36.0#	



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204335.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:8: 6 Instrument :  
Sample : L2270207-04,3,250,250 Quant Date : 12/22/2022 8:45 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204336.D  
 Acq On : 21 Dec 2022 9:26 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-06,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:23:19 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	340702	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		92.70%	
43) 1,4-difluorobenzene	5.29	114	1104388	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		91.57%	
67) chlorobenzene-D5	7.28	54	166315	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		96.70%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	1180	0.045	ppbV	94
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1490	0.047	ppbV	# 73

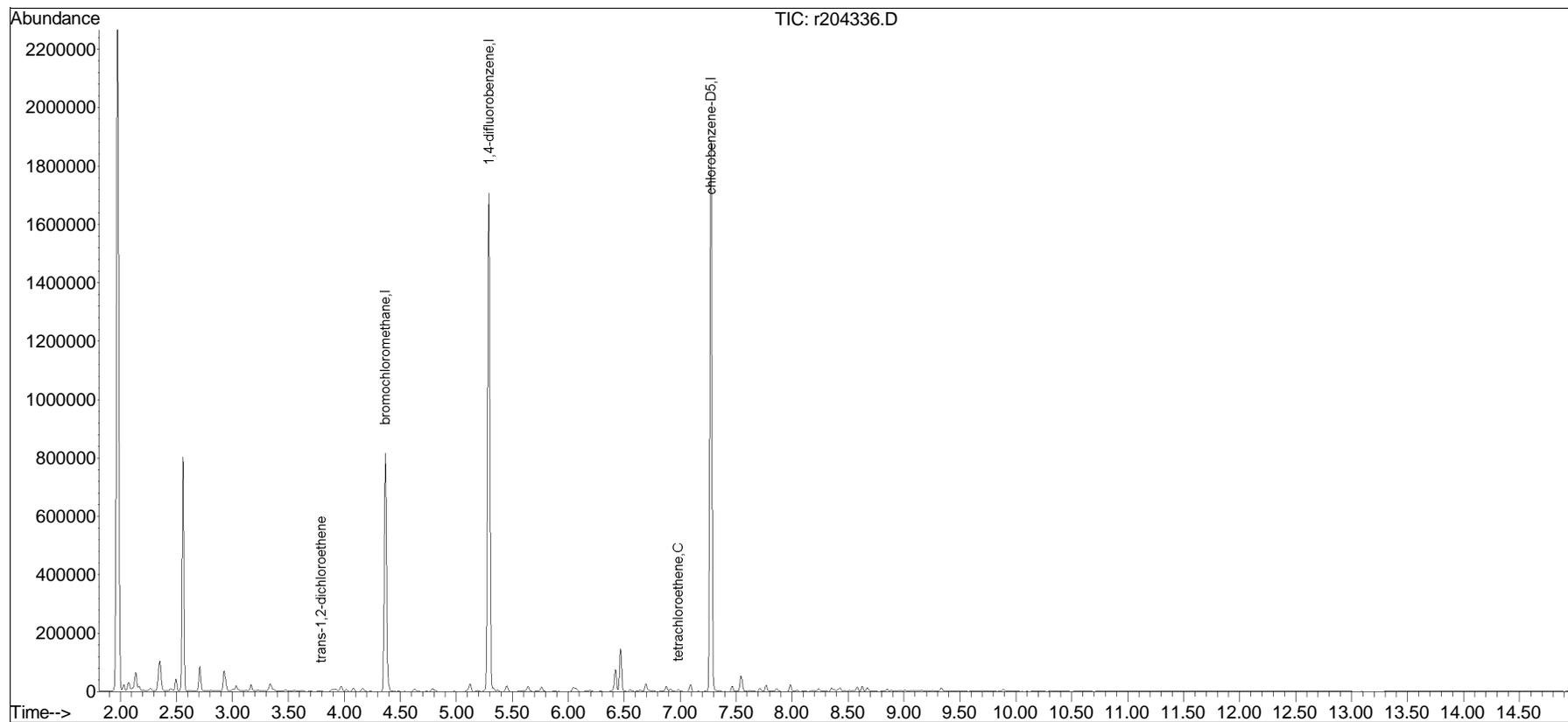
(#) = qualifier out of range (m) = manual integration (+) = signals summed

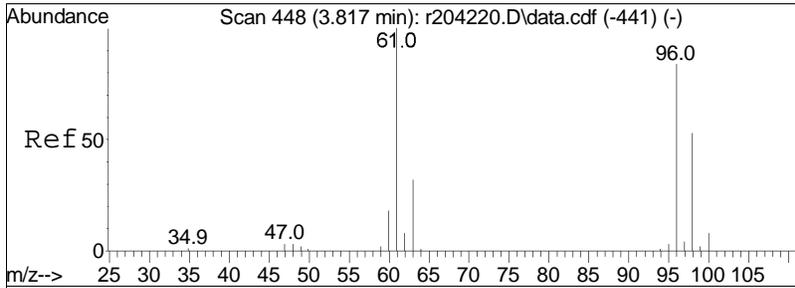
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204336.D  
Acq On : 21 Dec 2022 9:26 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-06,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:23:19 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

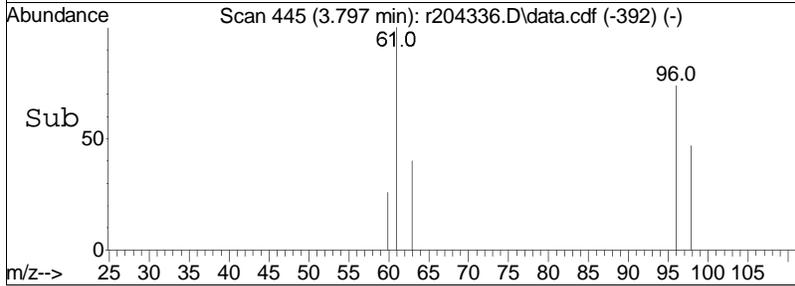
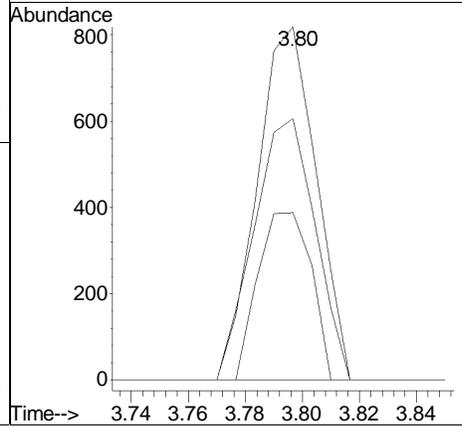
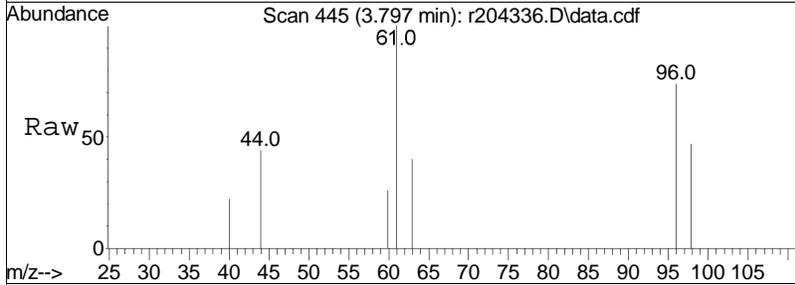
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

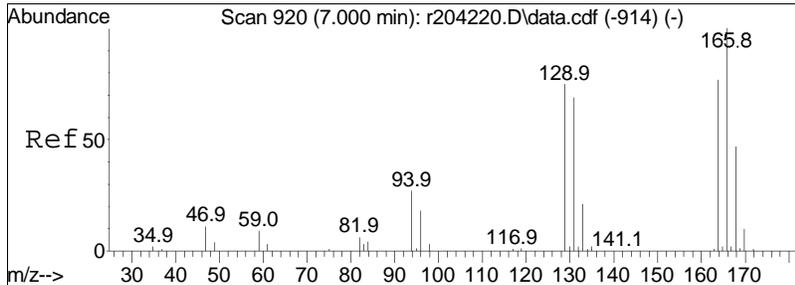




#32  
 trans-1,2-dichloroethene  
 Concen: 0.04 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204336.D  
 Acq: 21 Dec 2022 9:26 PM

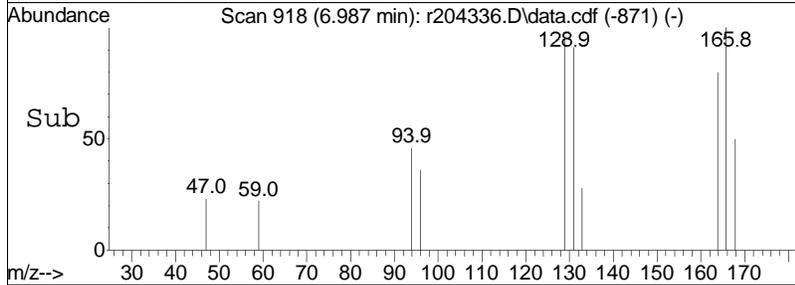
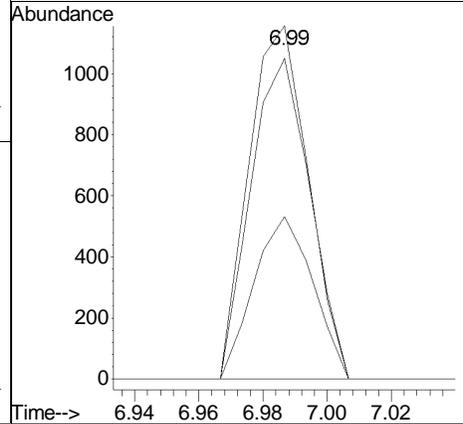
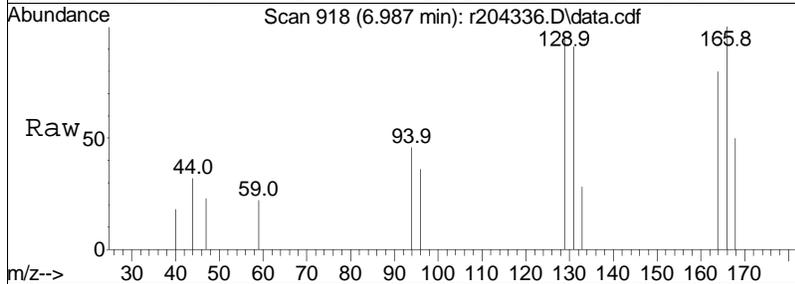
Tgt Ion	Ratio	Lower	Upper
61	100		
96	74.0	63.7	95.5
98	47.4	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204336.D  
 Acq: 21 Dec 2022 9:26 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	90.7	55.8	83.6#
94	46.0	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204336.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:9: 6 Instrument :  
Sample : L2270207-06,3,250,250 Quant Date : 12/22/2022 8:46 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204337.D  
 Acq On : 21 Dec 2022 9:59 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-07,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:23:50 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	338280	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		92.04%	
43) 1,4-difluorobenzene	5.29	114	1098761	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		91.10%	
67) chlorobenzene-D5	7.28	54	167765	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		97.55%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	1936	0.074	ppbV	90
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1551	0.048	ppbV	# 74

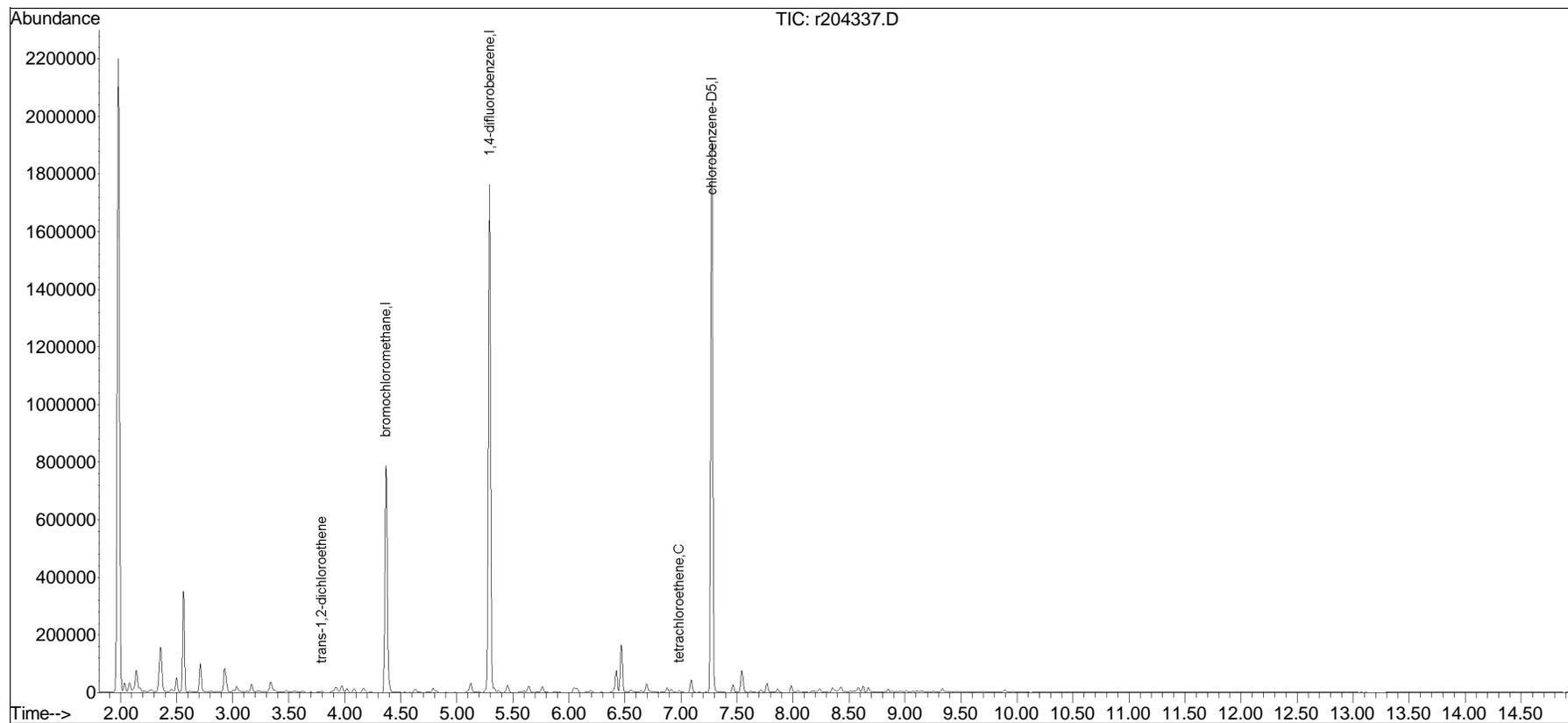
(#) = qualifier out of range (m) = manual integration (+) = signals summed

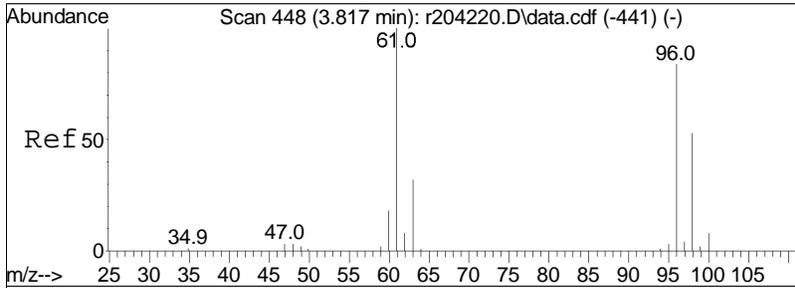
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204337.D  
Acq On : 21 Dec 2022 9:59 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-07,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:23:50 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

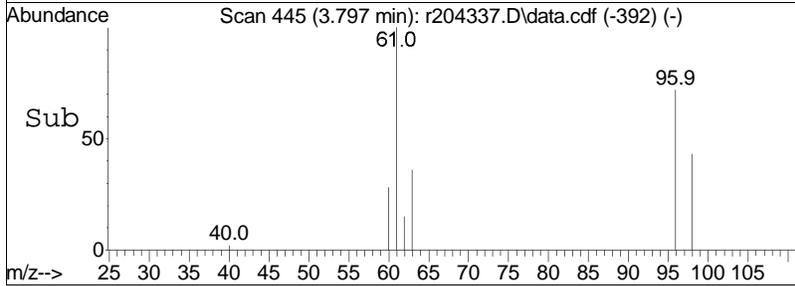
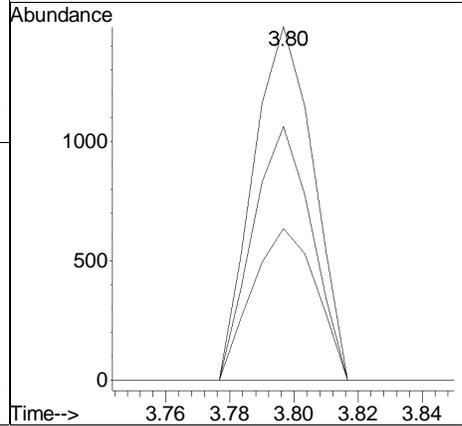
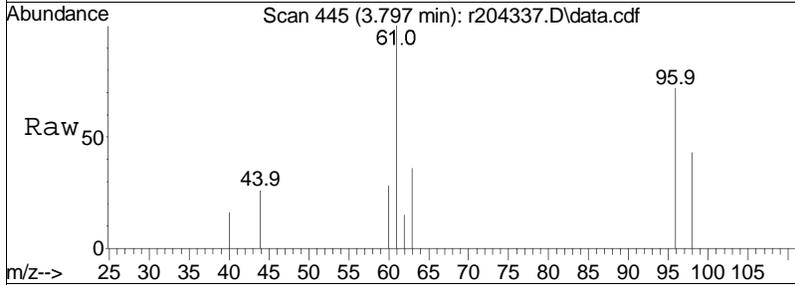
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

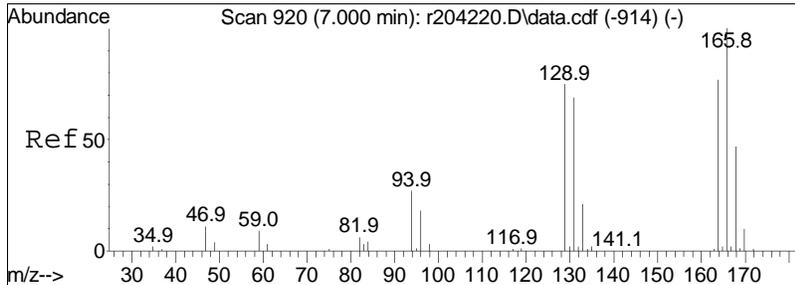




#32  
 trans-1,2-dichloroethene  
 Concen: 0.07 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204337.D  
 Acq: 21 Dec 2022 9:59 PM

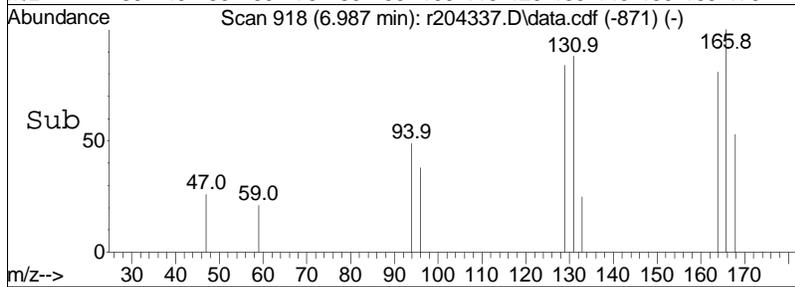
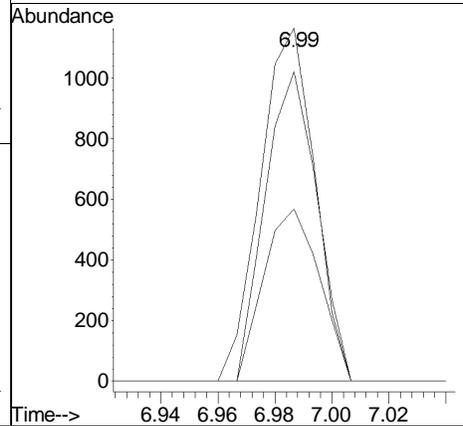
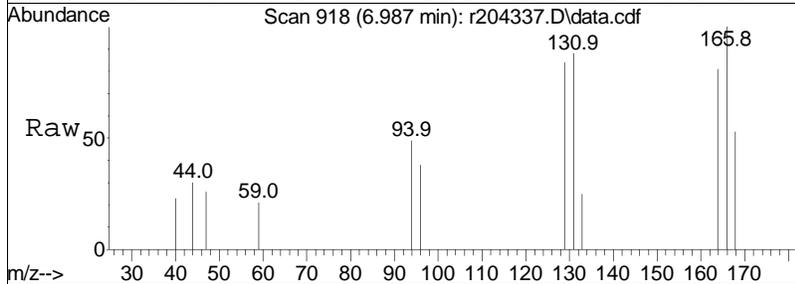
Tgt Ion	Ratio	Lower	Upper
61	100		
96	71.8	63.7	95.5
98	42.9	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204337.D  
 Acq: 21 Dec 2022 9:59 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	87.7	55.8	83.6#
94	48.8	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204337.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:9: 9 Instrument :  
Sample : L2270207-07,3,250,250 Quant Date : 12/22/2022 8:47 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204339.D  
 Acq On : 21 Dec 2022 11:14 PM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-09,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:24:27 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	335629	10.000	ppbV	-0.02
Standard Area =	367526		Recovery =	91.32%		
43) 1,4-difluorobenzene	5.29	114	1092438	10.000	ppbV	-0.01
Standard Area =	1206052		Recovery =	90.58%		
67) chlorobenzene-D5	7.28	54	165346	10.000	ppbV	#-0.01
Standard Area =	171983		Recovery =	96.14%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
32) trans-1,2-dichloroethene	3.80	61	574	0.022	ppbV	93
33) 1,1-dichloroethane	0.00		0	N.D.	d	
37) cis-1,2-dichloroethene	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.	d	
48) 1,1,1-trichloroethane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
78) tetrachloroethene	6.99	166	3423	0.108	ppbV #	83

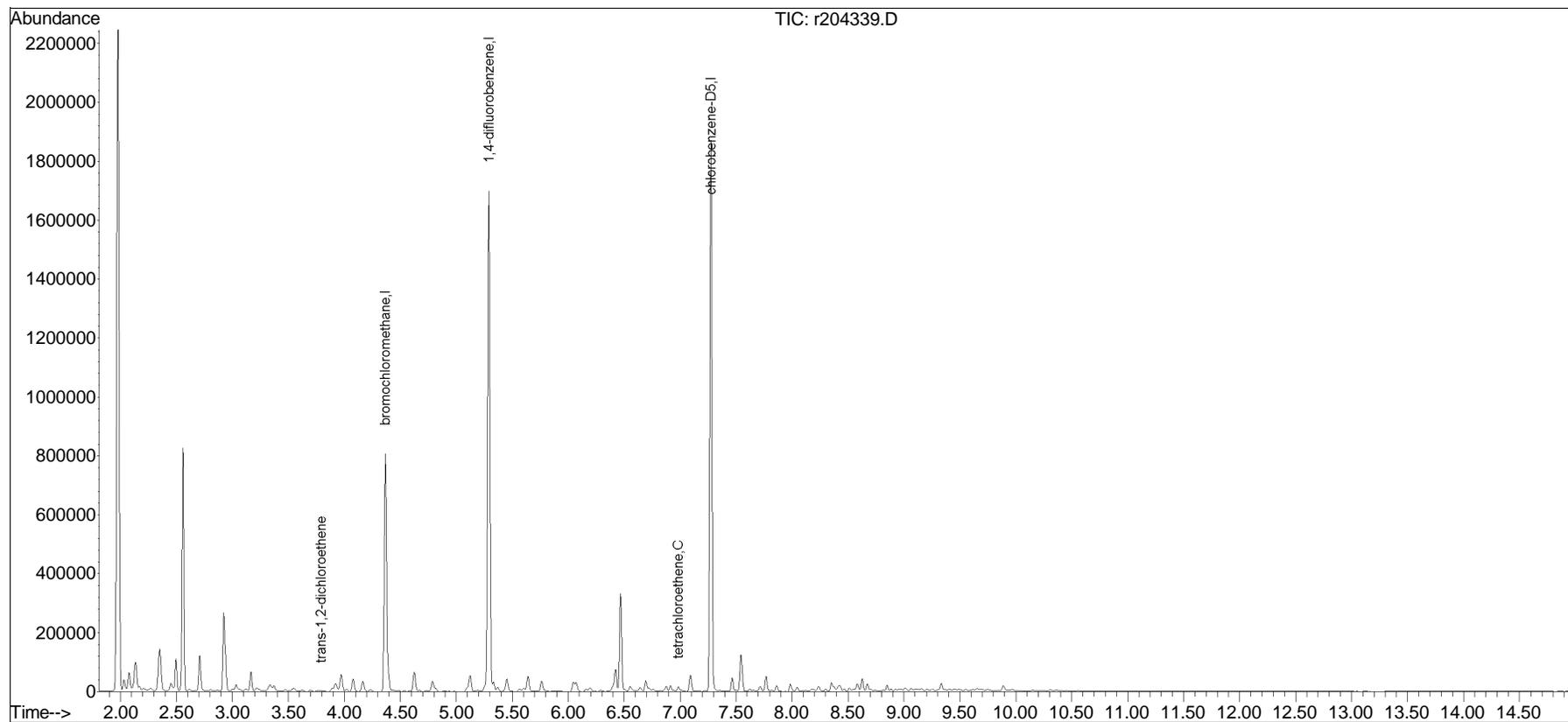
(#) = qualifier out of range (m) = manual integration (+) = signals summed

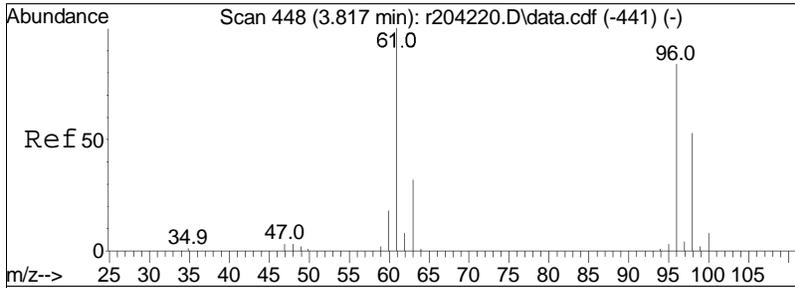
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204339.D  
Acq On : 21 Dec 2022 11:14 PM  
Operator : AIRLAB20:RAY  
Sample : L2270207-09,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:24:27 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

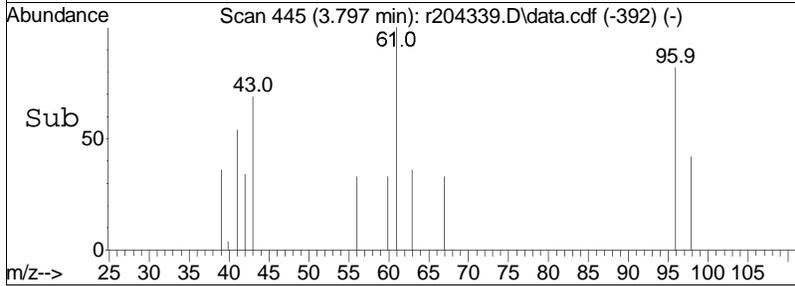
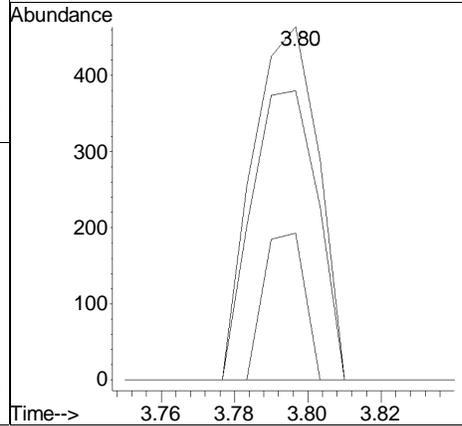
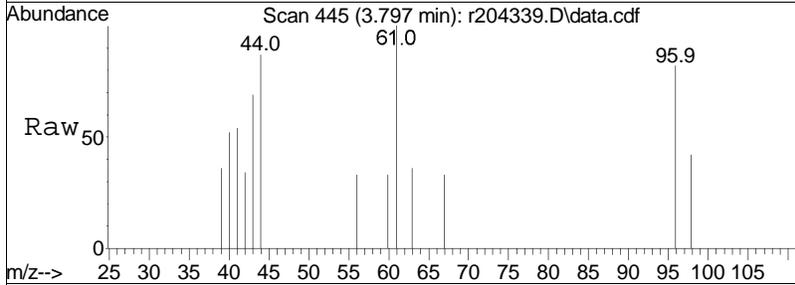
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

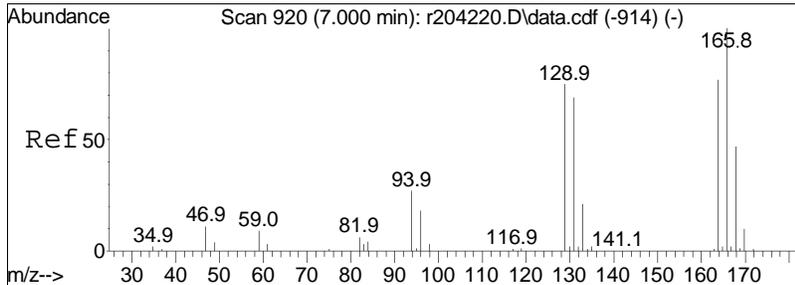




#32  
 trans-1,2-dichloroethene  
 Concen: 0.02 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204339.D  
 Acq: 21 Dec 2022 11:14 PM

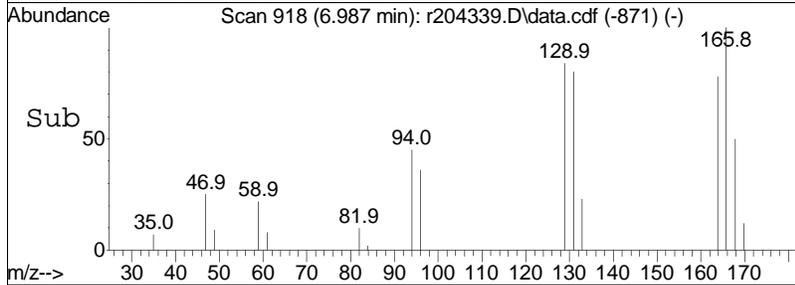
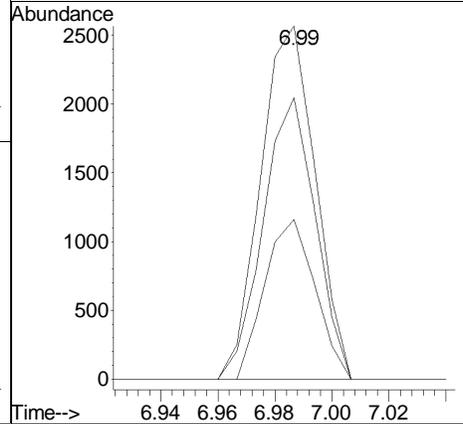
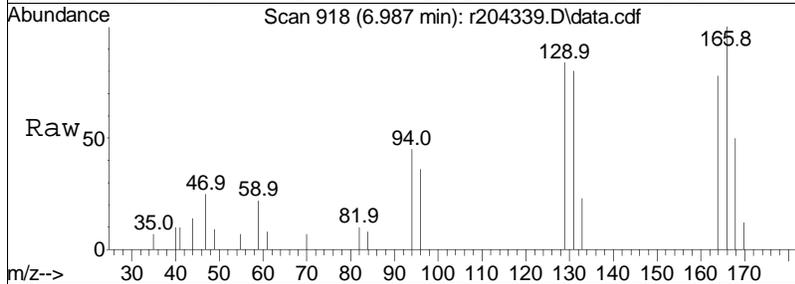
Tgt Ion	Ratio	Lower	Upper
61	100		
96	81.9	63.7	95.5
98	41.6	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.11 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204339.D  
 Acq: 21 Dec 2022 11:14 PM

Tgt Ion	Resp	Lower	Upper
166	100		
131	79.7	55.8	83.6
94	45.2	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204339.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:1: 4 Instrument :  
Sample : L2270207-09,3,250,250 Quant Date : 12/22/2022 8:47 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204341.D  
 Acq On : 22 Dec 2022 12:16 AM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-10,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:25:36 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	4.37	49	334967	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		91.14%	
43) 1,4-difluorobenzene	5.29	114	1085545	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		90.01%	
67) chlorobenzene-D5	7.28	54	165066	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		95.98%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1367	0.043	ppbV	# 84

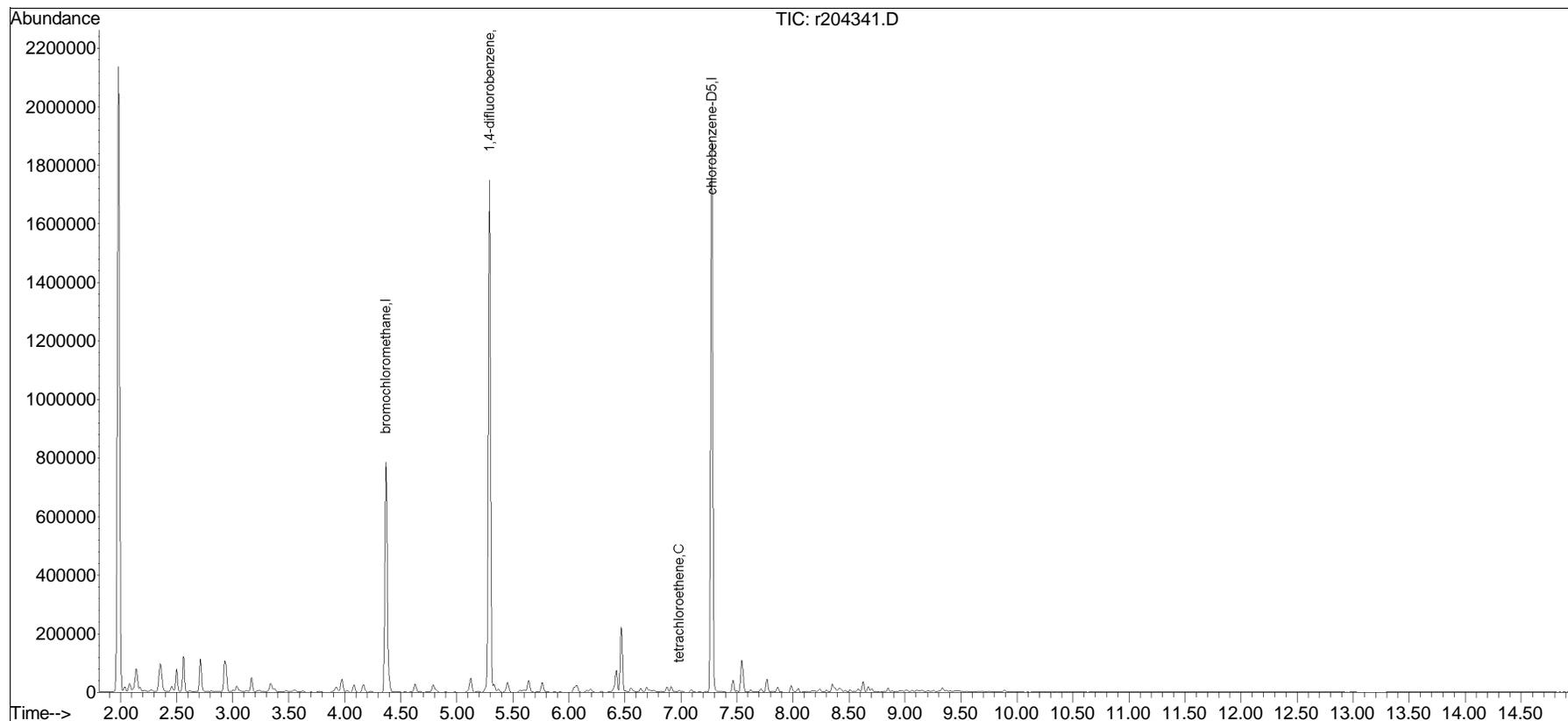
(#) = qualifier out of range (m) = manual integration (+) = signals summed

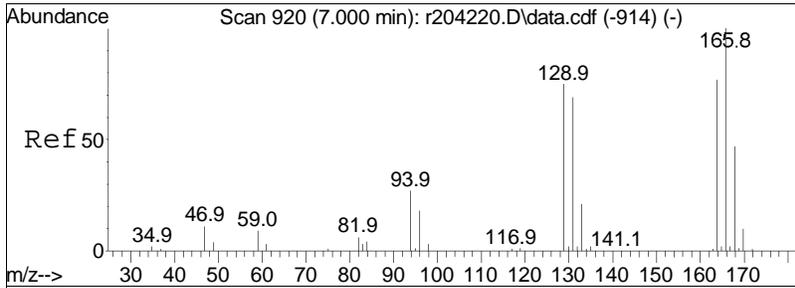
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204341.D  
Acq On : 22 Dec 2022 12:16 AM  
Operator : AIRLAB20:RAY  
Sample : L2270207-10,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:25:36 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

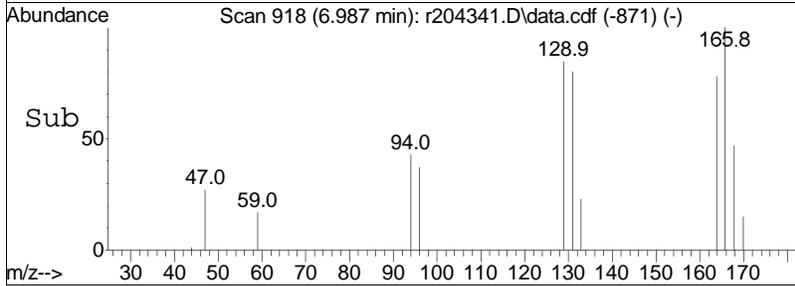
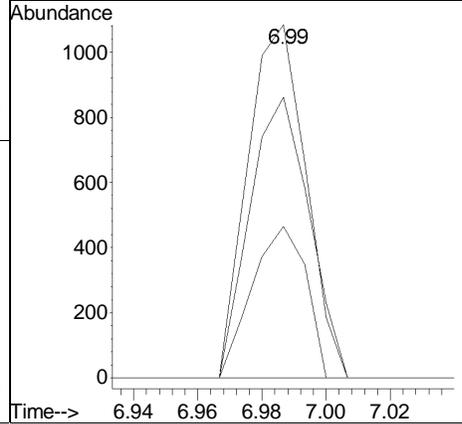
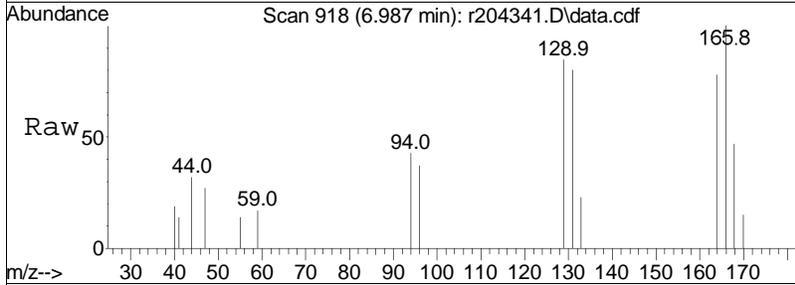
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D





#78  
 tetrachloroethene  
 Concen: 0.04 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204341.D  
 Acq: 22 Dec 2022 12:16 AM

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	1367		
131	79.5		55.8	83.6
94	42.9		24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204341.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/22/2020 0:2: 6 Instrument :  
Sample : L2270207-10,3,250,250 Quant Date : 12/22/2022 8:48 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204342.D  
 Acq On : 22 Dec 2022 12:46 AM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-11,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:26:55 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	329630	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		89.69%	
43) 1,4-difluorobenzene	5.29	114	1079498	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		89.51%	
67) chlorobenzene-D5	7.28	54	162619	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		94.56%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	744	0.029	ppbV	91
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1727	0.055	ppbV	# 85

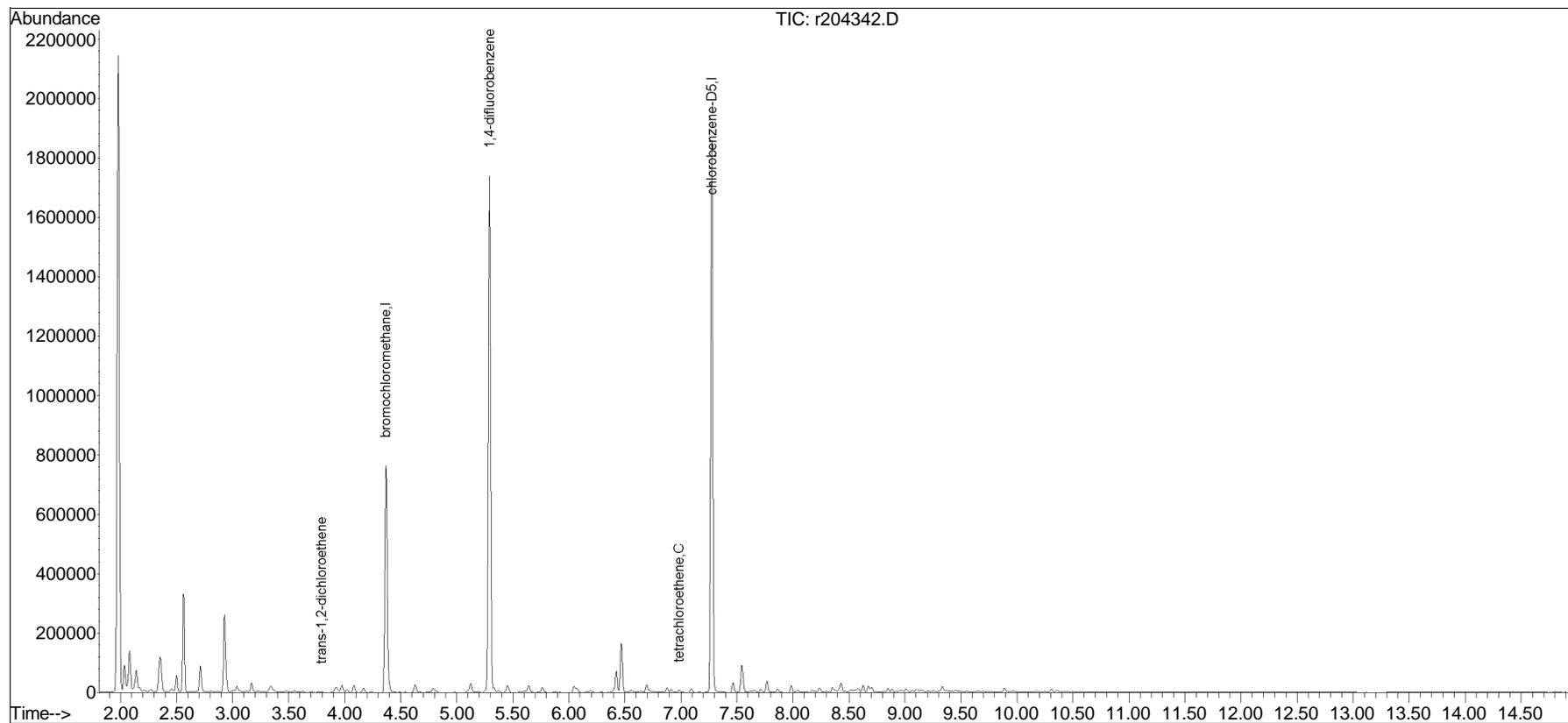
(#) = qualifier out of range (m) = manual integration (+) = signals summed

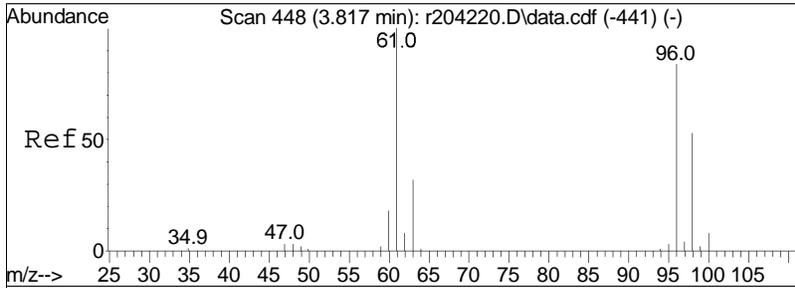
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204342.D  
Acq On : 22 Dec 2022 12:46 AM  
Operator : AIRLAB20:RAY  
Sample : L2270207-11,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:26:55 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

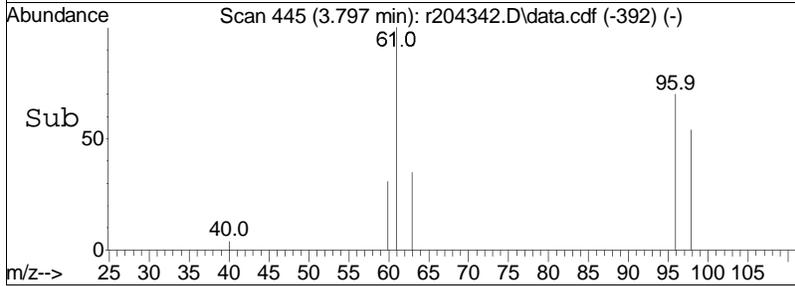
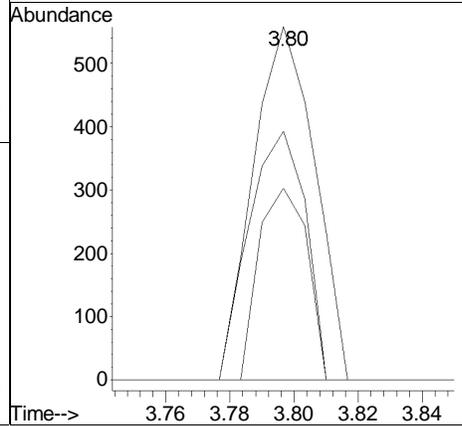
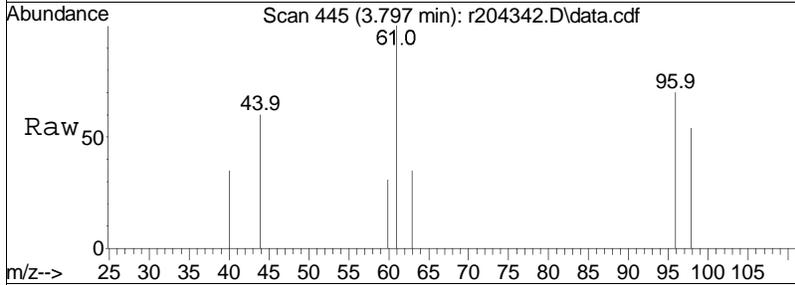
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

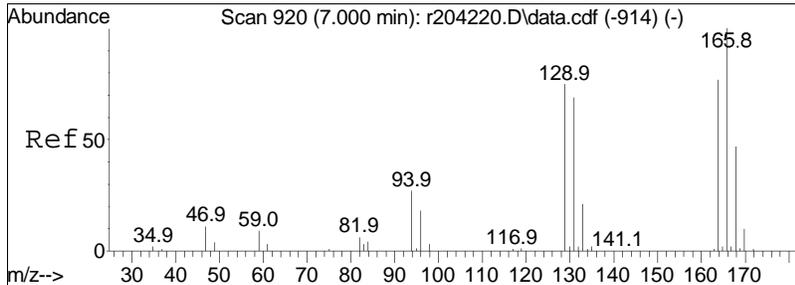




#32  
 trans-1,2-dichloroethene  
 Concen: 0.03 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204342.D  
 Acq: 22 Dec 2022 12:46 AM

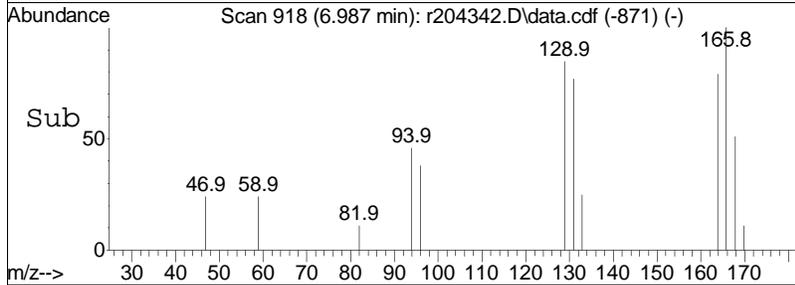
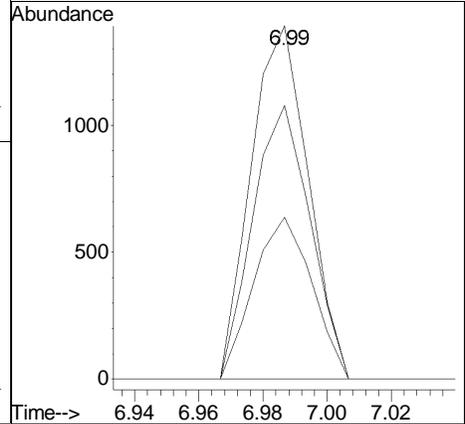
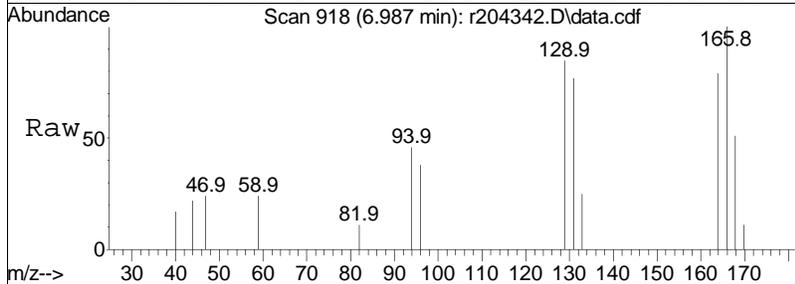
Tgt Ion	Ratio	Lower	Upper
61	100		
96	70.4	63.7	95.5
98	54.3	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204342.D  
 Acq: 22 Dec 2022 12:46 AM

Tgt Ion	Resp	Lower	Upper
166	100		
131	77.4	55.8	83.6
94	45.8	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204342.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/22/2020 0:2: 6 Instrument :  
Sample : L2270207-11,3,250,250 Quant Date : 12/22/2022 8:48 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204343.D  
 Acq On : 22 Dec 2022 1:19 AM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-12,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:27:31 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	334358	10.000	ppbV	-0.02
Standard Area = 367526			Recovery = 90.98%			
43) 1,4-difluorobenzene	5.29	114	1089177	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery = 90.31%			
67) chlorobenzene-D5	7.28	54	166730	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery = 96.95%			

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	772	0.030	ppbV	96
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1829	0.057	ppbV	# 82

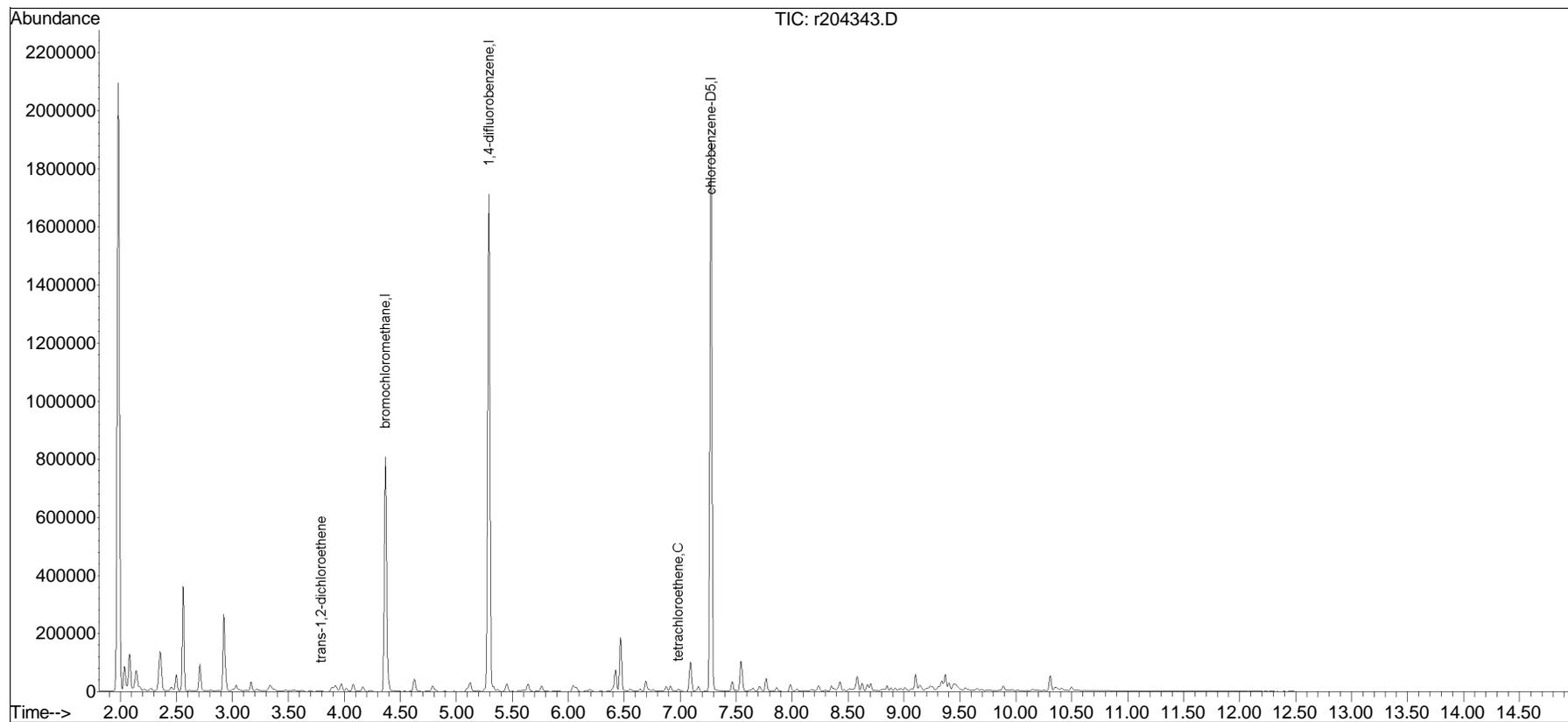
(#) = qualifier out of range (m) = manual integration (+) = signals summed

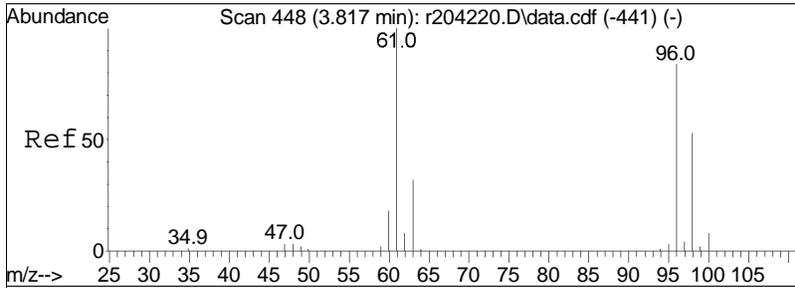
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204343.D  
Acq On : 22 Dec 2022 1:19 AM  
Operator : AIRLAB20:RAY  
Sample : L2270207-12,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:27:31 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

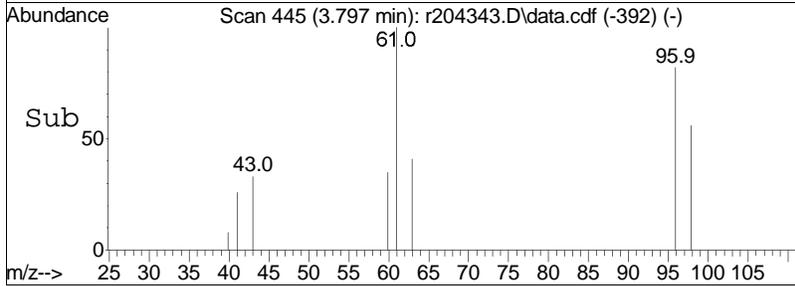
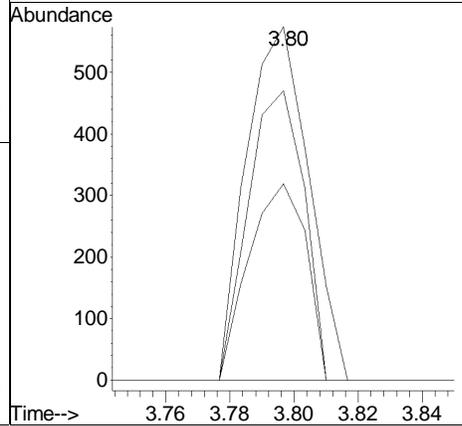
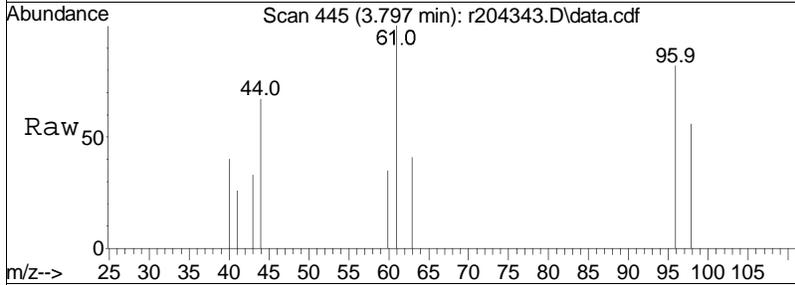
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

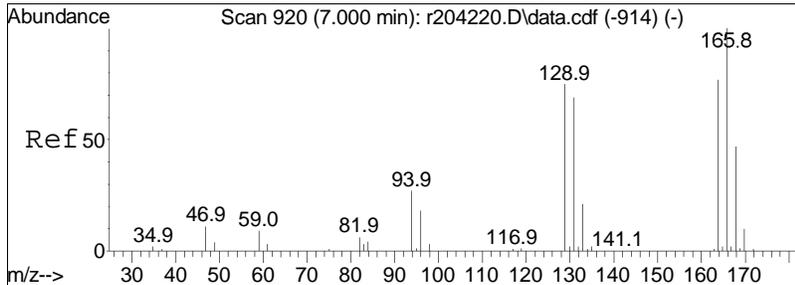




#32  
 trans-1,2-dichloroethene  
 Concen: 0.03 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204343.D  
 Acq: 22 Dec 2022 1:19 AM

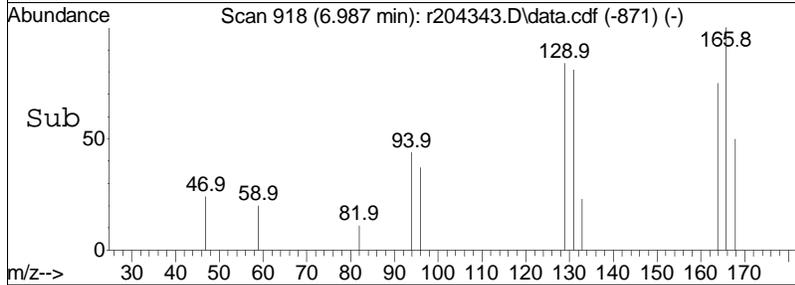
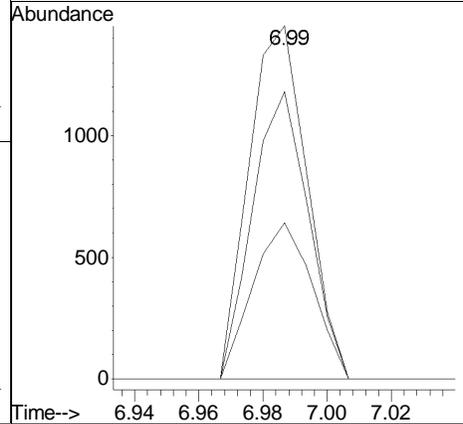
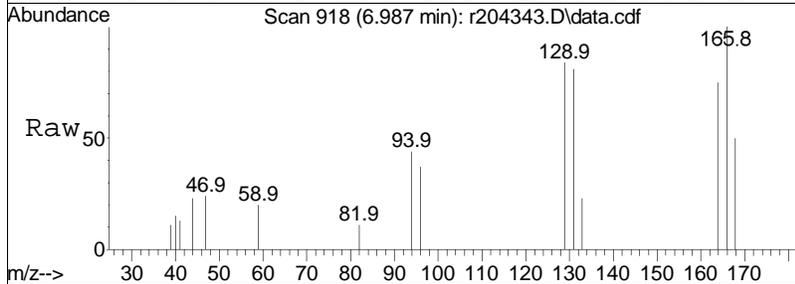
Tgt Ion	Ratio	Lower	Upper
61	100		
96	81.9	63.7	95.5
98	55.6	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.06 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204343.D  
 Acq: 22 Dec 2022 1:19 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	81.3	55.8	83.6
94	44.2	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204343.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/22/2020 0:1: 9 Instrument :  
Sample : L2270207-12,3,250,250 Quant Date : 12/22/2022 8:49 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204344.D  
 Acq On : 22 Dec 2022 8:31 AM  
 Operator : AIRLAB20:RAY  
 Sample : L2270207-08,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:28:06 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	333663	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		90.79%	
43) 1,4-difluorobenzene	5.29	114	1030244	10.000	ppbV	-0.02
Standard Area = 1206052			Recovery =		85.42%	
67) chlorobenzene-D5	7.28	54	157498	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		91.58%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.79	61	3048	0.118	ppbV	96
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	1535	0.051	ppbV	# 85

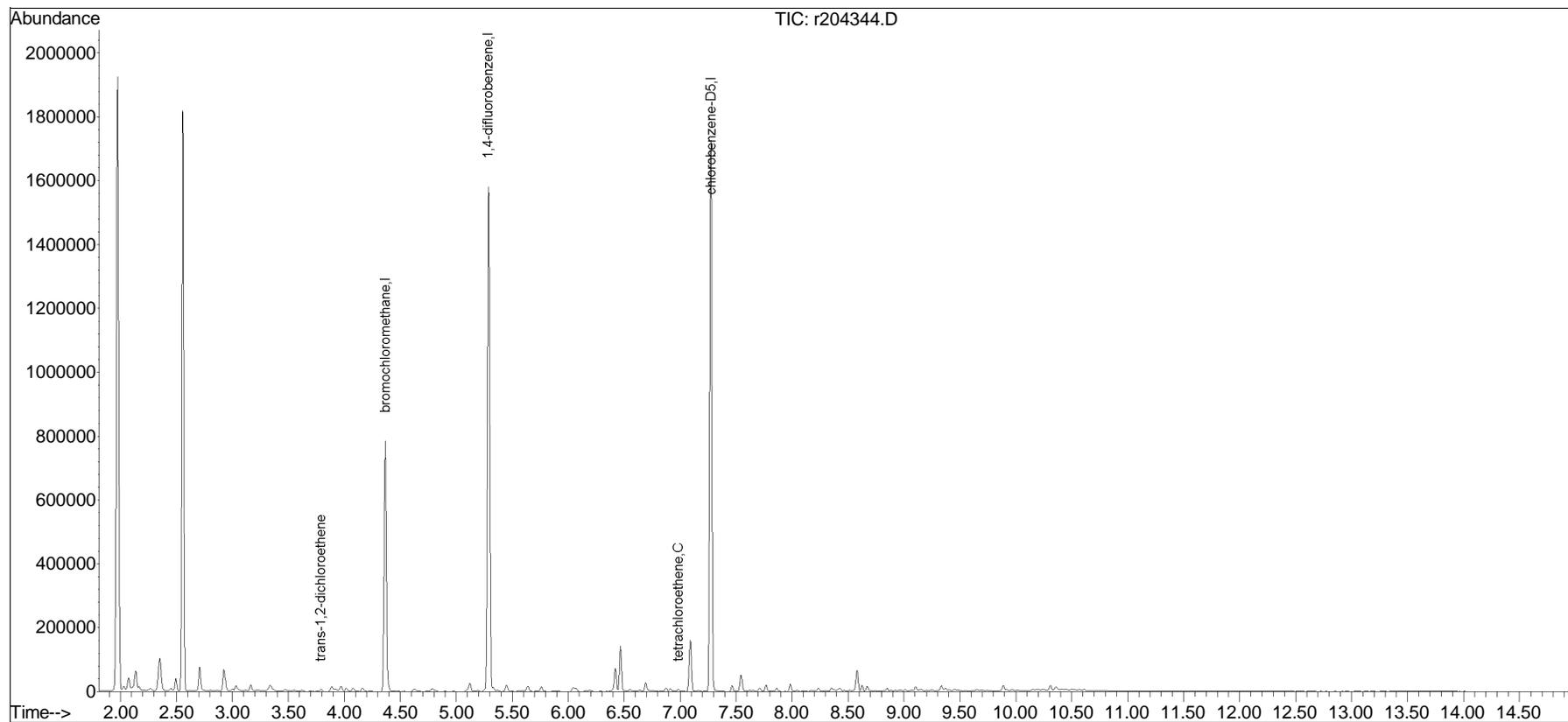
(#) = qualifier out of range (m) = manual integration (+) = signals summed

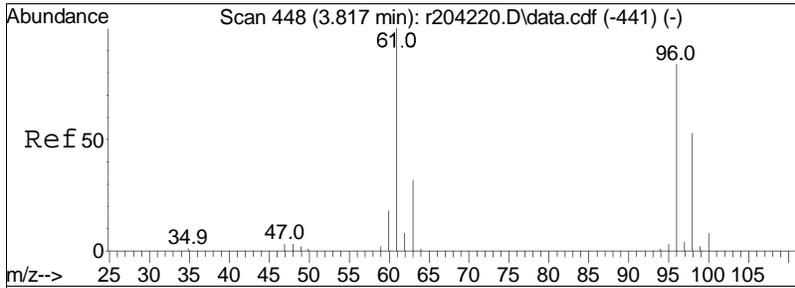
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204344.D  
Acq On : 22 Dec 2022 8:31 AM  
Operator : AIRLAB20:RAY  
Sample : L2270207-08,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:28:06 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

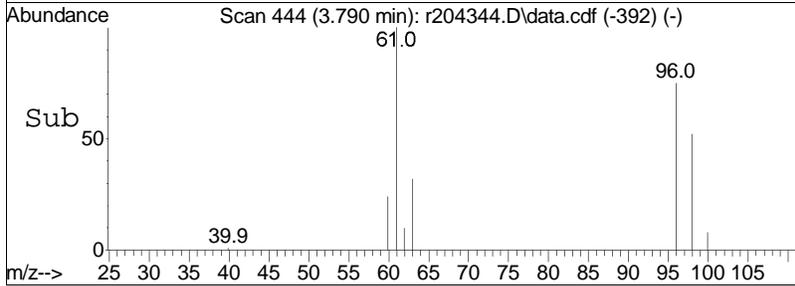
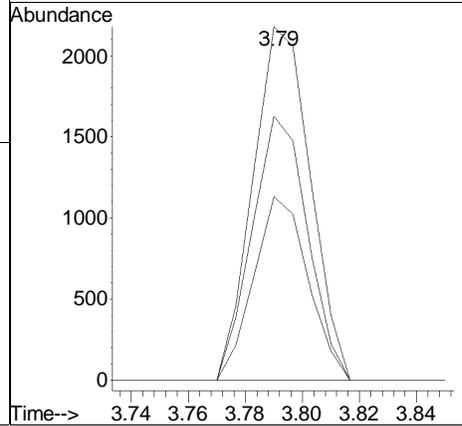
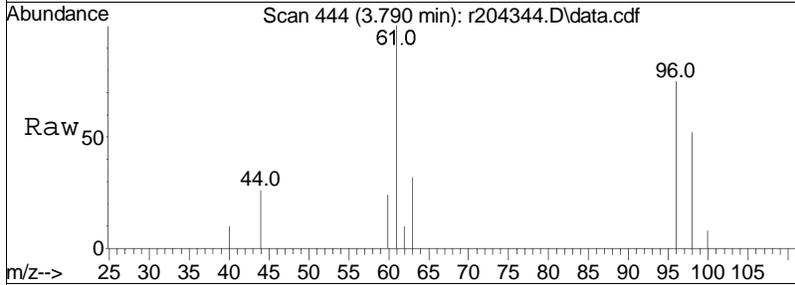
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

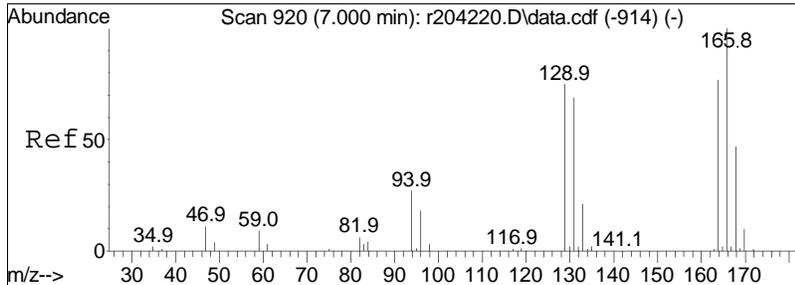




#32  
 trans-1,2-dichloroethene  
 Concen: 0.12 ppbV  
 RT: 3.79 min Scan# 444  
 Delta R.T. -0.027 min  
 Lab File: r204344.D  
 Acq: 22 Dec 2022 8:31 AM

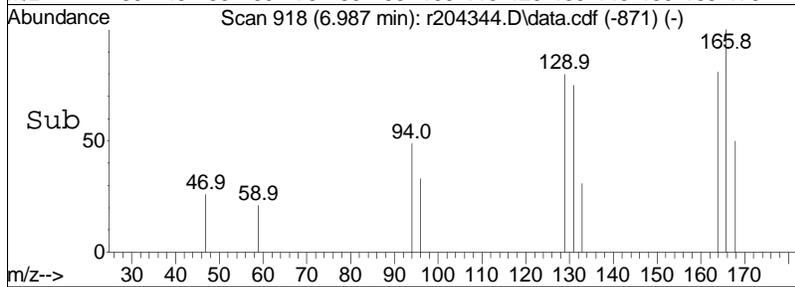
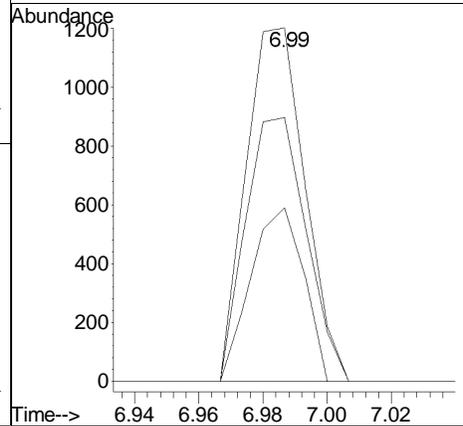
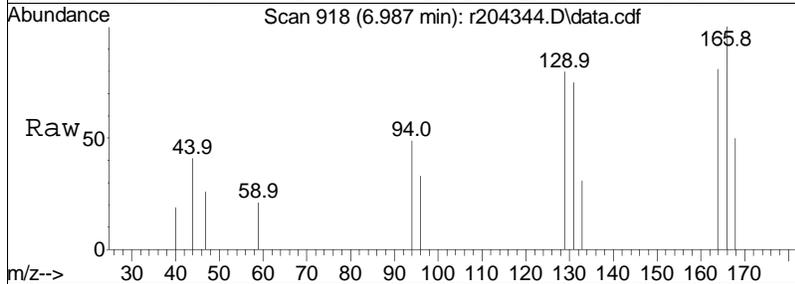
Tgt Ion	Resp	Lower	Upper
61	100		
96	74.7	63.7	95.5
98	51.9	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.05 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204344.D  
 Acq: 22 Dec 2022 8:31 AM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	74.6	55.8	83.6
94	49.1	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204344.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/22/2020 0:8: 1 Instrument :  
Sample : L2270207-08,3,250,250 Quant Date : 12/22/2022 9:53 am

There are no manual integrations or false positives in this file.

# **Volatiles Standards Data**

# **Initial Calibration**

# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : GEI Consultants **Lab Number** : L2270207  
**Project Name** : 30TH STREET REDEVELOPMENT SITE **Project Number** : 1800522  
**Instrument ID** : AIRLAB20 **Ical Ref** : ICAL19588  
**Calibration dates** : 12/14/22 03:03 12/14/22 10:33

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1) I bromochloromethane	-----ISTD-----									
2) chlorodifluoromethane	0.935	0.903	0.906	0.890	0.838	0.766	0.772	0.752	0.8453	8.65
3) propylene		0.366	0.399	0.440	0.367	0.436	0.379	0.347	0.3904	9.25
4) propane		0.361	0.313	0.297	0.265	0.243	0.248	0.274	0.2858	14.54
5) dichlorodifluoromethane	0.916	0.889	0.876	0.576	0.496	0.730	0.497	0.410	0.6737	30.24#
6) C chloromethane	0.301	0.292	0.298	0.276	0.255	0.258	0.257	0.269	0.2756	6.85
7) Freon-114	1.108	1.081	1.072	0.915	0.821	0.857	0.696	0.622	0.8964	20.35
8) C methanol			0.164	0.118	0.105	0.099	0.096	0.107	0.1147	22.11
9) C vinyl chloride	0.426	0.401	0.396	0.364	0.330	0.358	0.330	0.342	0.3684	9.72
10) C 1,3-butadiene	0.315	0.300	0.299	0.267	0.242	0.267	0.245	0.246	0.2726	10.41
11) butane	0.688	0.560	0.527	0.464	0.413	0.427	0.406	0.456	0.4926	19.39
12) C acetaldehyde		0.176	0.163	0.140	0.123	0.115	0.111	0.129	0.1365	18.06
13) C bromomethane	0.332	0.314	0.310	0.256	0.235	0.258	0.234	0.226	0.2707	15.42
14) C chloroethane	0.172	0.154	0.152	0.144	0.131	0.134	0.136	0.152	0.1467	9.27
15) ethanol			0.134	0.129	0.110	0.105	0.111	0.130	0.1198	10.43
16) dichlorofluoromethane	0.552	0.522	0.624	0.450	0.453	0.473	0.416	0.450	0.4924	13.94
17) C vinyl bromide	0.328	0.295	0.302	0.247	0.227	0.253	0.229	0.228	0.2636	14.92
18) C acrolein		0.129	0.120	0.110	0.099	0.117	0.117	0.118	0.1158	7.90
19) acetone	0.313	0.289	0.302	0.270	0.244	0.238	0.231	0.272	0.2700	11.29
20) C acetonitrile	0.248	0.237	0.235	0.231	0.210	0.210	0.216	0.254	0.2302	7.38
21) trichlorofluoromethane	0.418	0.396	0.403	0.319	0.296	0.332	0.308	0.331	0.3504	13.61
22) isopropyl alcohol	0.503	0.454	0.427	0.398	0.351	0.353	0.348	0.397	0.4039	13.71
23) C acrylonitrile	0.227	0.223	0.228	0.198	0.182	0.203	0.206	0.222	0.2111	7.83
24) pentane	0.526	0.498	0.580	0.548	0.527	0.512	0.526	0.572	0.5362	5.31
25) ethyl ether	0.288	0.275	0.333	0.318	0.281	0.287	0.299	0.368	0.3063	10.36
26) C 1,1-dichloroethene	0.617	0.632	0.769	0.614	0.584	0.570	0.493	0.560	0.6048	13.12
27) tertiary butyl alcohol		0.593	0.645	0.937	0.877	0.852	0.830	0.867	0.8002	16.09
28) C methylene chloride		0.648	0.620	0.570	0.526	0.539	0.535	0.525	0.5662	8.75
29) C 3-chloropropene	0.710	0.691	0.694	0.775	0.706	0.677	0.714	0.748	0.7144	4.51
30) C carbon disulfide	1.727	1.723	1.730	1.870	1.676	1.695	1.638	1.474	1.6916	6.56
31) Freon 113	1.026	1.020	1.015	1.017	0.917	0.877	0.814	0.764	0.9312	11.19
32) trans-1,2-dichloroethene	0.833	0.819	0.831	0.814	0.733	0.726	0.714	0.711	0.7725	7.24
33) C 1,1-dichloroethane	0.991	0.990	0.989	0.959	0.868	0.891	0.884	0.884	0.9322	5.89
34) C MTBE	1.547	1.578	1.624	1.506	1.368	1.464	1.388	1.230	1.4632	8.84
35) C vinyl acetate			0.768	0.946	0.903	0.939	1.019	1.038	0.9355	10.33
36) C 2-butanone		1.162	1.173	1.196	1.008	1.082	1.000	0.967	1.0841	8.66



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : GEI Consultants **Lab Number** : L2270207  
**Project Name** : 30TH STREET REDEVELOPMENT SITE **Project Number** : 1800522  
**Instrument ID** : AIRLAB20 **Ical Ref** : ICAL19588  
**Calibration dates** : 12/14/22 03:03 12/14/22 10:33

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
37) cis-1,2-dichloroethene	0.760	0.711	0.737	0.702	0.638	0.644	0.619	0.579	0.6738	9.35
38) Ethyl Acetate	0.156	0.161	0.168	0.208	0.185	0.163	0.154	0.149	0.1679	11.64
39) C chloroform	1.047	1.011	1.026	0.909	0.824	0.854	0.687	0.616	0.8717	18.27
40) Tetrahydrofuran	0.764	0.764	0.761	0.770	0.694	0.675	0.672	0.667	0.7208	6.62
41) 2,2-dichloropropane	0.606	0.593	0.648	0.648	0.609	0.678	0.547	0.473	0.6002	10.89
42) C 1,2-dichloroethane	0.660	0.642	0.646	0.425	0.398	0.534	0.424	0.330	0.5074	25.64
43) I 1,4-difluorobenzene	-----ISTD-----									
44) C hexane	0.284	0.287	0.289	0.272	0.244	0.233	0.194	0.162	0.2458	19.29
45) diisopropyl ether	0.165	0.181	0.171	0.167	0.147	0.147	0.127	0.104	0.1512	16.97
46) tert-butyl ethyl ether	0.443	0.459	0.466	0.452	0.409	0.435	0.361	0.313	0.4172	12.93
47) s 1,2-dichloroethane-D4	0.216	0.223	0.218	0.135	0.139	0.197	0.151	0.112	0.1738	25.51
48) C 1,1,1-trichloroethane	0.242	0.285	0.283	0.200	0.184	0.243	0.197	0.137	0.2212	23.05
49) 1,1-dichloropropene	0.262	0.260	0.261	0.215	0.195	0.224	0.199	0.158	0.2217	17.06
50) C benzene	0.705	0.616	0.590	0.550	0.490	0.488	0.463	0.390	0.5364	18.51
51) thiophene	0.320	0.331	0.333	0.339	0.300	0.293	0.268	0.222	0.3006	13.24
52) C carbon tetrachloride	0.161	0.169	0.172	0.141	0.130	0.169	0.132	0.099	0.1466	17.45
53) cyclohexane	0.335	0.314	0.312	0.299	0.273	0.272	0.251	0.221	0.2845	13.18
54) tert-amyl methyl ether	0.463	0.473	0.481	0.464	0.417	0.450	0.394	0.327	0.4339	12.05
55) dibromomethane	0.173	0.167	0.164	0.140	0.122	0.128	0.102	0.083	0.1348	24.09
56) C 1,2-dichloropropane	0.177	0.187	0.182	0.168	0.150	0.153	0.132	0.114	0.1580	16.19
57) bromodichloromethane	0.271	0.270	0.272	0.232	0.208	0.239	0.192	0.153	0.2296	18.85
58) C 1,4-dioxane	0.150	0.142	0.132	0.134	0.114	0.115	0.098	0.079	0.1206	19.74
59) C trichloroethene	0.216	0.218	0.212	0.196	0.173	0.176	0.138	0.110	0.1796	21.88
60) C 2,2,4-trimethylpentane	0.940	0.951	0.924	0.879	0.777	0.763	0.622	0.528	0.7980	19.61
61) methyl methacrylate		0.161	0.168	0.164	0.149	0.171	0.143	0.132	0.1554	9.18
62) heptane	0.345	0.347	0.342	0.298	0.266	0.282	0.221	0.203	0.2879	19.43
63) C cis-1,3-dichloropropene	0.223	0.230	0.236	0.237	0.215	0.230	0.192	0.155	0.2148	13.13
64) C 4-methyl-2-pentanone		0.418	0.414	0.351	0.311	0.324	0.249	0.225	0.3273	22.77
65) trans-1,3-dichloropropene	0.176	0.186	0.192	0.206	0.187	0.221	0.173	0.147	0.1858	11.98
66) C 1,1,2-trichloroethane	0.203	0.202	0.204	0.195	0.171	0.180	0.146	0.125	0.1783	16.57
67) I chlorobenzene-D5	-----ISTD-----									
68) C toluene	7.001	6.051	5.771	6.418	5.738	5.239	5.345	4.455	5.7522	13.47
69) s toluene-D8	6.757	6.854	6.969	8.470	8.705	8.059	9.941	9.531	8.1607	15.04
70) 2-methylthiophene	4.265	4.264	4.378	5.238	4.795	4.333	4.390	3.924	4.4485	8.95
71) 1,3-dichloropropane	2.692	2.643	2.681	2.848	2.600	2.490	2.437	2.061	2.5566	9.26
72) 2-hexanone	3.025	2.993	3.020	3.236	2.900	2.620	2.596	2.437	2.8533	9.55



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : GEI Consultants **Lab Number** : L2270207  
**Project Name** : 30TH STREET REDEVELOPMENT SITE **Project Number** : 1800522  
**Instrument ID** : AIRLAB20 **Ical Ref** : ICAL19588  
**Calibration dates** : 12/14/22 03:03 12/14/22 10:33

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
73) 3-methylthiophene	4.448	4.390	4.510	5.342	4.693	4.171	4.020	3.526	4.3875	12.02
74) dibromochloromethane	1.512	1.514	1.661	2.091	1.866	1.860	1.777	1.682	1.7454	11.19
75) C 1,2-dibromoethane	1.969	2.016	2.142	2.802	2.544	2.454	2.386	2.126	2.3050	12.57
76) butyl acetate		0.446	0.507	0.837	0.806	0.800	0.855	0.807	0.7224	23.54
77) octane	2.234	2.220	2.275	2.729	2.459	2.265	2.263	2.031	2.3094	8.89
78) C tetrachloroethene	2.014	1.896	1.960	2.296	1.998	1.889	1.777	1.517	1.9183	11.53
79) 1,1,1,2-tetrachloroethane	1.042	1.037	1.143	1.525	1.394	1.367	1.262	1.109	1.2348	14.63
80) C chlorobenzene	4.236	4.281	4.306	5.204	4.619	4.042	3.947	3.280	4.2394	13.00
81) C ethylbenzene	6.703	6.683	6.791	7.665	6.917	6.371	6.142	5.311	6.5731	10.30
82) 2-ethylthiophene	5.151	5.306	5.291	5.820	5.151	4.746	4.382	3.902	4.9685	12.13
83) C m+p-xylene	5.835	5.703	5.836	6.059	5.180	4.587	4.299	3.756	5.1568	16.48
84) C bromoform	0.856	0.984	1.048	1.704	1.530	1.455	1.544	1.297	1.3023	23.58
85) C styrene	4.282	4.401	4.547	5.333	4.739	4.388	4.339	4.009	4.5048	8.76
86) C 1,1,2,2-tetrachloroethane	3.494	3.531	3.661	4.296	3.640	3.150	2.976	2.650	3.4247	14.62
87) C o-xylene	5.838	5.730	5.891	5.992	5.001	4.318	4.058	3.621	5.0561	18.68
88) 1,2,3-trichloropropane	3.131	3.202	3.273	3.256	2.771	2.653	2.718	2.576	2.9475	9.99
89) nonane	4.070	4.043	4.144	4.275	3.633	3.291	3.415	3.332	3.7756	10.62
90) s bromofluorobenzene	4.313	4.435	4.579	5.001	4.973	4.473	5.366	5.996	4.8917	11.67
91) C isopropylbenzene	7.726	7.661	7.844	8.479	7.181	6.376	6.228	5.647	7.1429	13.54
92) bromobenzene	4.331	4.258	4.383	4.541	3.779	3.439	3.458	3.167	3.9196	13.34
93) 2-chlorotoluene	2.088	2.135	2.143	2.448	2.138	1.851	1.851	1.686	2.0424	11.63
94) n-propylbenzene	2.417	2.512	2.572	2.911	2.553	2.251	2.182	1.964	2.4203	11.94
95) 4-chlorotoluene	2.102	2.046	2.176	2.220	1.927	1.753	1.831	1.758	1.9768	9.39
96) 4-ethyl toluene	8.246	8.346	8.583	8.960	7.335	6.752	6.774	6.194	7.6487	13.28
97) 1,3,5-trimethylbenzene	6.866	7.117	7.174	7.292	5.852	5.130	5.138	4.832	6.1753	16.97
98) tert-butylbenzene	7.407	7.334	7.749	7.440	5.870	4.943	4.784	4.288	6.2267	22.73
99) 1,2,4-trimethylbenzene	6.840	7.124	7.300	6.783	5.321	4.491	4.359	3.908	5.7659	24.21
100) decane	4.888	5.182	5.351	5.707	4.688	4.227	4.424	4.147	4.8268	11.57
101) C Benzyl Chloride	1.458	1.493	1.808	3.656	3.167	3.150	3.720	3.772	2.7780	36.68#
102) 1,3-dichlorobenzene	3.552	3.549	3.674	3.903	3.075	2.732	2.757	2.623	3.2330	15.33
103) C 1,4-dichlorobenzene	3.673	3.675	3.740	3.895	3.053	2.843	2.936	2.500	3.2893	15.71
104) sec-butylbenzene	0.986	0.997	1.032	0.989	0.783	0.730	0.738	0.683	0.8673	16.85
105) 1,2,3-trimethylbenzene	6.230	6.502	6.675	5.590	4.397	3.983	3.857	3.530	5.0956	25.38
106) p-isopropyltoluene	8.473	8.975	9.017	8.271	6.454	5.696	5.388	4.834	7.1384	24.20
107) 1,2-dichlorobenzene	3.340	3.443	3.508	3.489	2.728	2.677	2.774	2.582	3.0677	13.37
108) n-butylbenzene	7.347	7.753	7.877	7.073	5.744	5.432	5.640	5.358	6.5280	16.64



# Initial Calibration Summary

## Form 6

### Air Volatiles

**Client** : GEI Consultants **Lab Number** : L2270207  
**Project Name** : 30TH STREET REDEVELOPMENT SITE **Project Number** : 1800522  
**Instrument ID** : AIRLAB20 **Ical Ref** : ICAL19588  
**Calibration dates** : 12/14/22 03:03 12/14/22 10:33

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
109) indan	6.619	6.806	6.920	6.920	5.603	5.243	5.377	4.987	6.0594	13.73
110) indene	5.016	5.188	5.503	5.415	4.430	4.326	4.519	4.263	4.8326	10.46
111) C 1,2-dibromo-3-chloropropane	0.775	0.871	1.070	1.259	1.033	1.083	1.232	1.289	1.0765	17.11
112) undecane	5.310	5.736	6.026	6.143	5.041	4.563	4.649	4.411	5.2350	12.96
113) 1,2,4,5-tetramethylbenzene	0.988	1.057	1.088	0.979	0.775	0.655	0.642	0.585	0.8463	24.14
114) dodecane	4.950	5.658	5.807	6.489	5.201	4.182	3.953	3.583	4.9780	20.25
115) C 1,2,4-trichlorobenzene	2.636	3.001	3.165	3.337	2.604	2.308	2.467	2.359	2.7346	14.10
116) naphthalene	7.382	8.453	9.079	8.868	7.084	5.918	5.829	5.431	7.2556	19.88
117) 1,2,3-trichlorobenzene	2.510	2.903	3.005	3.112	2.552	2.310	2.396	2.205	2.6241	12.93
118) benzothiophene	1.942	2.244	2.382	2.165	1.698	1.428	1.277	1.066	1.7751	27.32
119) C hexachlorobutadiene	3.018	3.224	3.190	2.529	2.065	1.800	1.729	1.623	2.3972	28.32
120) 2-methylnaphthalene			1.400	2.181	1.887	1.453	1.759	1.976	1.7760	17.13
121) 1-methylnaphthalene			2.468	2.691	2.311	1.976	2.322	2.375	2.3570	9.91



Response Factor Report

Method Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Method File : TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD	
1) I bromochloromethane	-----ISTD-----										
2) chlorodifluoromethane	0.935	0.903	0.906	0.890	0.838	0.766	0.772	0.752	0.8453	8.65	
3) propylene		0.366	0.399	0.440	0.367	0.436	0.379	0.347	0.3904	9.25	
4) propane		0.361	0.313	0.297	0.265	0.243	0.248	0.274	0.2858	14.54	
5) dichlorodifluoromethane	0.916	0.889	0.876	0.576	0.496	0.730	0.497	0.410	0.6737	30.24#	
6) C chloromethane	0.301	0.292	0.298	0.276	0.255	0.258	0.257	0.269	0.2756	6.85	
7) Freon-114	1.108	1.081	1.072	0.915	0.821	0.857	0.696	0.622	0.8964	20.35	
8) C methanol			0.164	0.118	0.105	0.099	0.096	0.107	0.1147	22.11	
9) C vinyl chloride	0.426	0.401	0.396	0.364	0.330	0.358	0.330	0.342	0.3684	9.72	
10) C 1,3-butadiene	0.315	0.300	0.299	0.267	0.242	0.267	0.245	0.246	0.2726	10.41	
11) butane	0.688	0.560	0.527	0.464	0.413	0.427	0.406	0.456	0.4926	19.39	
12) C acetaldehyde		0.176	0.163	0.140	0.123	0.115	0.111	0.129	0.1365	18.06	
13) C bromomethane	0.332	0.314	0.310	0.256	0.235	0.258	0.234	0.226	0.2707	15.42	
14) C chloroethane	0.172	0.154	0.152	0.144	0.131	0.134	0.136	0.152	0.1467	9.27	
15) ethanol			0.134	0.129	0.110	0.105	0.111	0.130	0.1198	10.43	
16) dichlorofluoromethane	0.552	0.522	0.624	0.450	0.453	0.473	0.416	0.450	0.4924	13.94	
17) C vinyl bromide	0.328	0.295	0.302	0.247	0.227	0.253	0.229	0.228	0.2636	14.92	
18) C acrolein		0.129	0.120	0.110	0.099	0.117	0.117	0.118	0.1158	7.90	
19) acetone	0.313	0.289	0.302	0.270	0.244	0.238	0.231	0.272	0.2700	11.29	
20) C acetonitrile	0.248	0.237	0.235	0.231	0.210	0.210	0.216	0.254	0.2302	7.38	
21) trichlorofluoromethane	0.418	0.396	0.403	0.319	0.296	0.332	0.308	0.331	0.3504	13.61	
22) isopropyl alcohol	0.503	0.454	0.427	0.398	0.351	0.353	0.348	0.397	0.4039	13.71	
23) C acrylonitrile	0.227	0.223	0.228	0.198	0.182	0.203	0.206	0.222	0.2111	7.83	
24) pentane	0.526	0.498	0.580	0.548	0.527	0.512	0.526	0.572	0.5362	5.31	
25) ethyl ether	0.288	0.275	0.333	0.318	0.281	0.287	0.299	0.368	0.3063	10.36	
26) C 1,1-dichloroethene	0.617	0.632	0.769	0.614	0.584	0.570	0.493	0.560	0.6048	13.12	
27) tertiary butyl alcohol		0.593	0.645	0.937	0.877	0.852	0.830	0.867	0.8002	16.09	
28) C methylene chloride		0.648	0.620	0.570	0.526	0.539	0.535	0.525	0.5662	8.75	
29) C 3-chloropropene	0.710	0.691	0.694	0.775	0.706	0.677	0.714	0.748	0.7144	4.51	
30) C carbon disulfide	1.727	1.723	1.730	1.870	1.676	1.695	1.638	1.474	1.6916	6.56	
31) Freon 113	1.026	1.020	1.015	1.017	0.917	0.877	0.814	0.764	0.9312	11.19	

Response Factor Report

Method Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Method File : TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32) trans-1,2-dichloroethene	0.833	0.819	0.831	0.814	0.733	0.726	0.714	0.711	0.7725	7.24
33) C 1,1-dichloroethane	0.991	0.990	0.989	0.959	0.868	0.891	0.884	0.884	0.9322	5.89
34) C MTBE	1.547	1.578	1.624	1.506	1.368	1.464	1.388	1.230	1.4632	8.84
35) C vinyl acetate			0.768	0.946	0.903	0.939	1.019	1.038	0.9355	10.33
36) C 2-butanone		1.162	1.173	1.196	1.008	1.082	1.000	0.967	1.0841	8.66
37) cis-1,2-dichloroethene	0.760	0.711	0.737	0.702	0.638	0.644	0.619	0.579	0.6738	9.35
38) Ethyl Acetate	0.156	0.161	0.168	0.208	0.185	0.163	0.154	0.149	0.1679	11.64
39) C chloroform	1.047	1.011	1.026	0.909	0.824	0.854	0.687	0.616	0.8717	18.27
40) Tetrahydrofuran	0.764	0.764	0.761	0.770	0.694	0.675	0.672	0.667	0.7208	6.62
41) 2,2-dichloropropane	0.606	0.593	0.648	0.648	0.609	0.678	0.547	0.473	0.6002	10.89
42) C 1,2-dichloroethane	0.660	0.642	0.646	0.425	0.398	0.534	0.424	0.330	0.5074	25.64
43) I 1,4-difluorobenzene	-----ISTD-----									
44) C hexane	0.284	0.287	0.289	0.272	0.244	0.233	0.194	0.162	0.2458	19.29
45) diisopropyl ether	0.165	0.181	0.171	0.167	0.147	0.147	0.127	0.104	0.1512	16.97
46) tert-butyl ethyl ether	0.443	0.459	0.466	0.452	0.409	0.435	0.361	0.313	0.4172	12.93
47) s 1,2-dichloroethane-D4	0.216	0.223	0.218	0.135	0.139	0.197	0.151	0.112	0.1738	25.51
48) C 1,1,1-trichloroethane	0.242	0.285	0.283	0.200	0.184	0.243	0.197	0.137	0.2212	23.05
49) 1,1-dichloropropene	0.262	0.260	0.261	0.215	0.195	0.224	0.199	0.158	0.2217	17.06
50) C benzene	0.705	0.616	0.590	0.550	0.490	0.488	0.463	0.390	0.5364	18.51
51) thiophene	0.320	0.331	0.333	0.339	0.300	0.293	0.268	0.222	0.3006	13.24
52) C carbon tetrachloride	0.161	0.169	0.172	0.141	0.130	0.169	0.132	0.099	0.1466	17.45
53) cyclohexane	0.335	0.314	0.312	0.299	0.273	0.272	0.251	0.221	0.2845	13.18
54) tert-amyl methyl ether	0.463	0.473	0.481	0.464	0.417	0.450	0.394	0.327	0.4339	12.05
55) dibromomethane	0.173	0.167	0.164	0.140	0.122	0.128	0.102	0.083	0.1348	24.09
56) C 1,2-dichloropropane	0.177	0.187	0.182	0.168	0.150	0.153	0.132	0.114	0.1580	16.19
57) bromodichloromethane	0.271	0.270	0.272	0.232	0.208	0.239	0.192	0.153	0.2296	18.85
58) C 1,4-dioxane	0.150	0.142	0.132	0.134	0.114	0.115	0.098	0.079	0.1206	19.74
59) C trichloroethene	0.216	0.218	0.212	0.196	0.173	0.176	0.138	0.110	0.1796	21.88
60) C 2,2,4-trimethylpentane	0.940	0.951	0.924	0.879	0.777	0.763	0.622	0.528	0.7980	19.61
61) methyl methacrylate		0.161	0.168	0.164	0.149	0.171	0.143	0.132	0.1554	9.18
62) heptane	0.345	0.347	0.342	0.298	0.266	0.282	0.221	0.203	0.2879	19.43

Response Factor Report

Method Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Method File : TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63) C cis-1,3-dichloropropene	0.223	0.230	0.236	0.237	0.215	0.230	0.192	0.155	0.2148	13.13
64) C 4-methyl-2-pentanone		0.418	0.414	0.351	0.311	0.324	0.249	0.225	0.3273	22.77
65) trans-1,3-dichloropropene	0.176	0.186	0.192	0.206	0.187	0.221	0.173	0.147	0.1858	11.98
66) C 1,1,2-trichloroethane	0.203	0.202	0.204	0.195	0.171	0.180	0.146	0.125	0.1783	16.57
67) I chlorobenzene-D5	-----ISTD-----									
68) C toluene	7.001	6.051	5.771	6.418	5.738	5.239	5.345	4.455	5.7522	13.47
69) s toluene-D8	6.757	6.854	6.969	8.470	8.705	8.059	9.941	9.531	8.1607	15.04
70) 2-methylthiophene	4.265	4.264	4.378	5.238	4.795	4.333	4.390	3.924	4.4485	8.95
71) 1,3-dichloropropane	2.692	2.643	2.681	2.848	2.600	2.490	2.437	2.061	2.5566	9.26
72) 2-hexanone	3.025	2.993	3.020	3.236	2.900	2.620	2.596	2.437	2.8533	9.55
73) 3-methylthiophene	4.448	4.390	4.510	5.342	4.693	4.171	4.020	3.526	4.3875	12.02
74) dibromochloromethane	1.512	1.514	1.661	2.091	1.866	1.860	1.777	1.682	1.7454	11.19
75) C 1,2-dibromoethane	1.969	2.016	2.142	2.802	2.544	2.454	2.386	2.126	2.3050	12.57
76) butyl acetate		0.446	0.507	0.837	0.806	0.800	0.855	0.807	0.7224	23.54
77) octane	2.234	2.220	2.275	2.729	2.459	2.265	2.263	2.031	2.3094	8.89
78) C tetrachloroethene	2.014	1.896	1.960	2.296	1.998	1.889	1.777	1.517	1.9183	11.53
79) 1,1,1,2-tetrachloroethane	1.042	1.037	1.143	1.525	1.394	1.367	1.262	1.109	1.2348	14.63
80) C chlorobenzene	4.236	4.281	4.306	5.204	4.619	4.042	3.947	3.280	4.2394	13.00
81) C ethylbenzene	6.703	6.683	6.791	7.665	6.917	6.371	6.142	5.311	6.5731	10.30
82) 2-ethylthiophene	5.151	5.306	5.291	5.820	5.151	4.746	4.382	3.902	4.9685	12.13
83) C m+p-xylene	5.835	5.703	5.836	6.059	5.180	4.587	4.299	3.756	5.1568	16.48
84) C bromoform	0.856	0.984	1.048	1.704	1.530	1.455	1.544	1.297	1.3023	23.58
85) C styrene	4.282	4.401	4.547	5.333	4.739	4.388	4.339	4.009	4.5048	8.76
86) C 1,1,2,2-tetrachloroethane	3.494	3.531	3.661	4.296	3.640	3.150	2.976	2.650	3.4247	14.62
87) C o-xylene	5.838	5.730	5.891	5.992	5.001	4.318	4.058	3.621	5.0561	18.68
88) 1,2,3-trichloropropane	3.131	3.202	3.273	3.256	2.771	2.653	2.718	2.576	2.9475	9.99
89) nonane	4.070	4.043	4.144	4.275	3.633	3.291	3.415	3.332	3.7756	10.62
90) s bromofluorobenzene	4.313	4.435	4.579	5.001	4.973	4.473	5.366	5.996	4.8917	11.67
91) C isopropylbenzene	7.726	7.661	7.844	8.479	7.181	6.376	6.228	5.647	7.1429	13.54
92) bromobenzene	4.331	4.258	4.383	4.541	3.779	3.439	3.458	3.167	3.9196	13.34
93) 2-chlorotoluene	2.088	2.135	2.143	2.448	2.138	1.851	1.851	1.686	2.0424	11.63

Response Factor Report

Method Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Method File : TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022  
 Response Via : Initial Calibration

Calibration Files

0.2 =r204210.D 0.5 =r204211.D 1.0 =r204212.D 5.0 =r204219.D 10 =r204220.D 20 =r204215.D  
 50 =r204216.D 100 =r204217.D

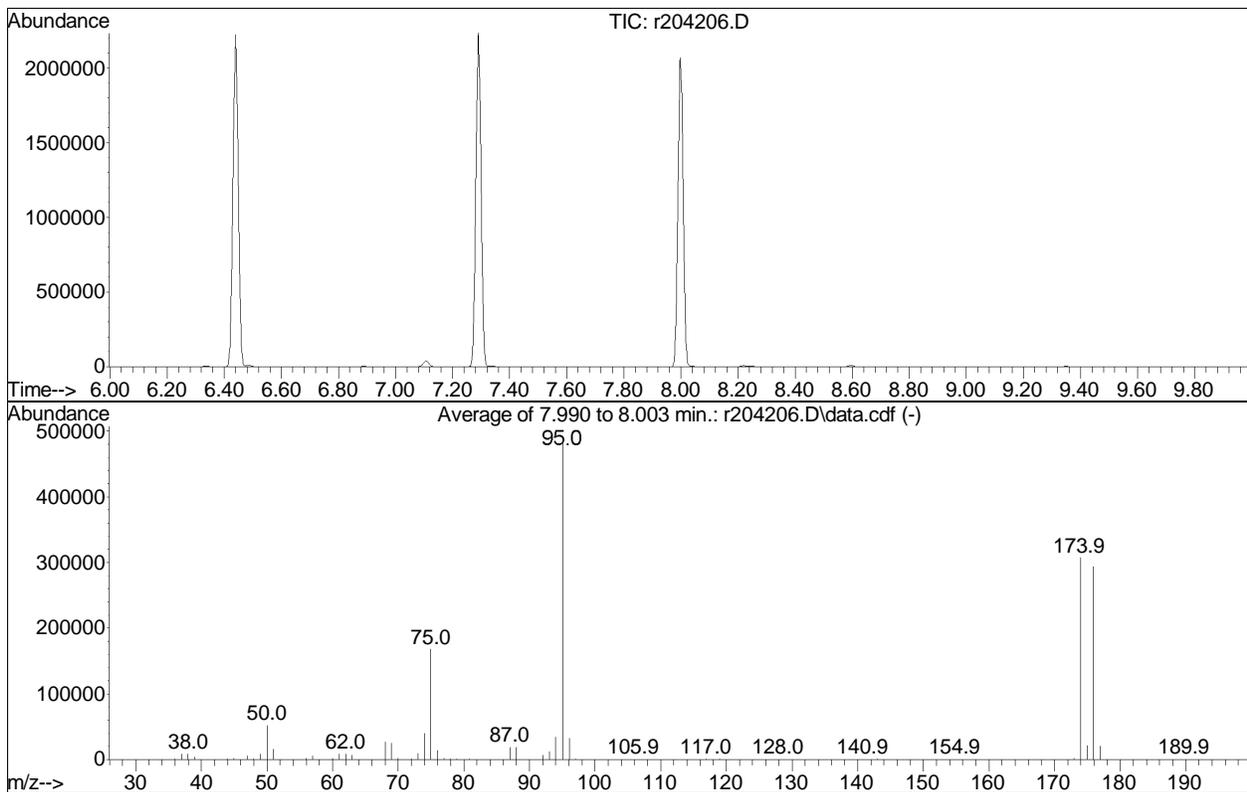
Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94) n-propylbenzene	2.417	2.512	2.572	2.911	2.553	2.251	2.182	1.964	2.4203	11.94
95) 4-chlorotoluene	2.102	2.046	2.176	2.220	1.927	1.753	1.831	1.758	1.9768	9.39
96) 4-ethyl toluene	8.246	8.346	8.583	8.960	7.335	6.752	6.774	6.194	7.6487	13.28
97) 1,3,5-trimethylbenzene	6.866	7.117	7.174	7.292	5.852	5.130	5.138	4.832	6.1753	16.97
98) tert-butylbenzene	7.407	7.334	7.749	7.440	5.870	4.943	4.784	4.288	6.2267	22.73
99) 1,2,4-trimethylbenzene	6.840	7.124	7.300	6.783	5.321	4.491	4.359	3.908	5.7659	24.21
100) decane	4.888	5.182	5.351	5.707	4.688	4.227	4.424	4.147	4.8268	11.57
101) C Benzyl Chloride	1.458	1.493	1.808	3.656	3.167	3.150	3.720	3.772	2.7780	36.68#
102) 1,3-dichlorobenzene	3.552	3.549	3.674	3.903	3.075	2.732	2.757	2.623	3.2330	15.33
103) C 1,4-dichlorobenzene	3.673	3.675	3.740	3.895	3.053	2.843	2.936	2.500	3.2893	15.71
104) sec-butylbenzene	0.986	0.997	1.032	0.989	0.783	0.730	0.738	0.683	0.8673	16.85
105) 1,2,3-trimethylbenzene	6.230	6.502	6.675	5.590	4.397	3.983	3.857	3.530	5.0956	25.38
106) p-isopropyltoluene	8.473	8.975	9.017	8.271	6.454	5.696	5.388	4.834	7.1384	24.20
107) 1,2-dichlorobenzene	3.340	3.443	3.508	3.489	2.728	2.677	2.774	2.582	3.0677	13.37
108) n-butylbenzene	7.347	7.753	7.877	7.073	5.744	5.432	5.640	5.358	6.5280	16.64
109) indan	6.619	6.806	6.920	6.920	5.603	5.243	5.377	4.987	6.0594	13.73
110) indene	5.016	5.188	5.503	5.415	4.430	4.326	4.519	4.263	4.8326	10.46
111) C 1,2-dibromo-3-chloropropane	0.775	0.871	1.070	1.259	1.033	1.083	1.232	1.289	1.0765	17.11
112) undecane	5.310	5.736	6.026	6.143	5.041	4.563	4.649	4.411	5.2350	12.96
113) 1,2,4,5-tetramethylbenzene	0.988	1.057	1.088	0.979	0.775	0.655	0.642	0.585	0.8463	24.14
114) dodecane	4.950	5.658	5.807	6.489	5.201	4.182	3.953	3.583	4.9780	20.25
115) C 1,2,4-trichlorobenzene	2.636	3.001	3.165	3.337	2.604	2.308	2.467	2.359	2.7346	14.10
116) naphthalene	7.382	8.453	9.079	8.868	7.084	5.918	5.829	5.431	7.2556	19.88
117) 1,2,3-trichlorobenzene	2.510	2.903	3.005	3.112	2.552	2.310	2.396	2.205	2.6241	12.93
118) benzothiophene	1.942	2.244	2.382	2.165	1.698	1.428	1.277	1.066	1.7751	27.32
119) C hexachlorobutadiene	3.018	3.224	3.190	2.529	2.065	1.800	1.729	1.623	2.3972	28.32
120) 2-methylnaphthalene			1.400	2.181	1.887	1.453	1.759	1.976	1.7760	17.13
121) 1-methylnaphthalene			2.468	2.691	2.311	1.976	2.322	2.375	2.3570	9.91

(#) = Out of Range

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204206.D  
 Acq On : 14 Dec 2022 1:08 AM  
 Operator : AIRLAB20:TJS  
 Sample : WG1723369-1,3,250,250  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022



Spectrum Information: Average of 7.990 to 8.003 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	10.9	52486	PASS
75	95	30	66	34.8	168061	PASS
95	95	100	100	100.0	483416	PASS
96	95	5	9	6.7	32258	PASS
173	174	0.00	2	0.8	2344	PASS
174	95	50	120	63.6	307218	PASS
175	174	4	9	7.2	22048	PASS
176	174	93	101	95.7	294070	PASS
177	176	5	9	6.9	20269	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204210.D  
 Acq On : 14 Dec 2022 3:03 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:03:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:36 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.387	49	391776	10.000	ppbV	0.00
Standard Area = 354966			Recovery = 110.37%			
43) 1,4-difluorobenzene	5.307	114	1359794	10.000	ppbV	0.00
Standard Area = 1399790			Recovery = 97.14%			
67) chlorobenzene-D5	7.290	54	169869	10.000	ppbV	0.00
Standard Area = 133534			Recovery = 127.21%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.747	65	293964	15.604	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 156.04%#			
69) toluene-D8	6.440	98	1147744	7.762	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 77.62%			
90) bromofluorobenzene	7.997	95	732587	8.672	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 86.72%			
<b>Target Compounds</b>						
						Qvalue
2) chlorodifluoromethane	2.120	51	7323	0.223	ppbV	95
3) propylene	2.140	41	3394M6	0.236	ppbV	
4) propane	2.150	29	3908	0.376	ppbV #	89
5) dichlorodifluoromethane	2.180	85	7175	0.369	ppbV	97
6) chloromethane	2.285	50	2358	0.236	ppbV #	86
7) Freon-114	2.340	85	8682	0.270	ppbV	95
8) methanol	2.370	31	7623	1.852	ppbV #	75
9) vinyl chloride	2.415	62	3341	0.258	ppbV	100
10) 1,3-butadiene	2.485	54	2467	0.260	ppbV	94
11) butane	2.510	43	5388	0.333	ppbV #	94
12) acetaldehyde	2.355	29	8191	1.703	ppbV	98
13) bromomethane	2.610	94	2604	0.282	ppbV	95
14) chloroethane	2.680	64	1348	0.263	ppbV	97
15) ethanol	2.725	31	7071	1.647	ppbV	98
16) dichlorofluoromethane	2.720	67	4322	0.243	ppbV	97
17) vinyl bromide	2.833	106	2570	0.289	ppbV	99
18) acrolein	2.881	56	1070	0.276	ppbV #	90
19) acetone	2.941	43	12276	1.286	ppbV #	89
20) acetonitrile	2.821	41	1946	0.237	ppbV	89
21) trichlorofluoromethane	3.019	101	3274	0.282	ppbV	93
22) isopropyl alcohol	3.052	45	9857	0.717	ppbV #	96
23) acrylonitrile	3.151	53	1779	0.249	ppbV	98
24) pentane	3.184	43	4125	0.200	ppbV #	91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204210.D  
 Acq On : 14 Dec 2022 3:03 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:03:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:36 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) ethyl ether	3.193	31	2258	0.205	ppbV	#	83
26) 1,1-dichloroethene	3.315	61	4833	0.211	ppbV		98
27) tertiary butyl alcohol	3.340	59	4493	0.131	ppbV	#	97
28) methylene chloride	3.370	49	5749	0.279	ppbV		98
29) 3-chloropropene	3.425	41	5564	0.201	ppbV		89
30) carbon disulfide	3.510	76	13532	0.206	ppbV	#	89
31) Freon 113	3.490	101	8038	0.224	ppbV		96
32) trans-1,2-dichloroethene	3.817	61	6525	0.227	ppbV		93
33) 1,1-dichloroethane	3.910	63	7762	0.228	ppbV		99
34) MTBE	3.943	73	12123	0.226	ppbV		98
35) vinyl acetate	3.977	43	6015	0.170	ppbV	#	93
36) 2-butanone	4.097	43	9142	0.231	ppbV	#	91
37) cis-1,2-dichloroethene	4.307	61	5957	0.238	ppbV		93
38) Ethyl Acetate	4.413	61	1222	0.168	ppbV		83
39) chloroform	4.447	83	8202	0.254	ppbV		98
40) Tetrahydrofuran	4.647	42	5988	0.220	ppbV	#	89
41) 2,2-dichloropropane	4.460	77	4751	0.199	ppbV	#	69
42) 1,2-dichloroethane	4.800	62	5172	0.331	ppbV		96
44) hexane	4.413	57	7728	0.233	ppbV		85
45) diisopropyl ether	4.413	87	4491M6	0.225	ppbV		
46) tert-butyl ethyl ether	4.667	59	12056	0.217	ppbV		98
48) 1,1,1-trichloroethane	4.927	97	6570	0.263	ppbV		99
49) 1,1-dichloropropene	5.073	75	7120	0.268	ppbV		92
50) benzene	5.140	78	19165	0.288	ppbV		99
51) thiophene	5.207	84	8707	0.214	ppbV		96
52) carbon tetrachloride	5.213	117	4370	0.246	ppbV		99
53) cyclohexane	5.273	56	9106	0.245	ppbV		95
54) tert-amyl methyl ether	5.427	73	12605	0.222	ppbV		96
55) dibromomethane	5.520	93	4716	0.285	ppbV		92
56) 1,2-dichloropropane	5.533	63	4818M6	0.236	ppbV		
57) bromodichloromethane	5.620	83	7358M6	0.260	ppbV		
58) 1,4-dioxane	5.653	88	4070M6	0.263	ppbV		
59) trichloroethene	5.640	130	5861	0.250	ppbV		98
60) 2,2,4-trimethylpentane	5.660	57	25562	0.242	ppbV		97
61) methyl methacrylate	5.733	41	4220	0.208	ppbV		90
62) heptane	5.780	43	9372	0.259	ppbV		90
63) cis-1,3-dichloropropene	6.040	75	6071	0.208	ppbV		92
64) 4-methyl-2-pentanone	6.060	43	11204	0.265	ppbV		95
65) trans-1,3-dichloropropene	6.280	75	4780	0.188	ppbV		97
66) 1,1,2-trichloroethane	6.360	97	5530	0.238	ppbV		91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204210.D  
 Acq On : 14 Dec 2022 3:03 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:03:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:36 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	23784	0.244	ppbV	99
70) 2-methylthiophene	6.513	97	14490	0.178	ppbV	96
71) 1,3-dichloropropane	6.493	76	9146	0.207	ppbV	91
72) 2-hexanone	6.613	43	10276	0.209	ppbV	95
73) 3-methylthiophene	6.600	97	15111	0.190	ppbV	99
74) dibromochloromethane	6.680	129	5136	0.162	ppbV	98
75) 1,2-dibromoethane	6.793	107	6690	0.155	ppbV	96
76) butyl acetate	6.893	73	1416	0.103	ppbV	86
77) octane	6.927	85	7589	0.182	ppbV	85
78) tetrachloroethene	7.000	166	6843	0.202	ppbV	94
79) 1,1,1,2-tetrachloroethane	7.303	131	3541	0.150	ppbV	98
80) chlorobenzene	7.310	112	14392	0.183	ppbV #	88
81) ethylbenzene	7.483	91	22774	0.194	ppbV	98
82) 2-ethylthiophene	7.503	97	17501	0.200	ppbV	97
83) m+p-xylene	7.563	91	39650M6	0.451	ppbV	
84) bromoform	7.603	173	2909	0.112	ppbV	96
85) styrene	7.730	104	14548	0.181	ppbV #	90
86) 1,1,2,2-tetrachloroethane	7.777	83	11869	0.192	ppbV	98
87) o-xylene	7.783	91	19833	0.233	ppbV	86
88) 1,2,3-trichloropropane	7.843	75	10636	0.226	ppbV	97
89) nonane	7.877	43	13826	0.224	ppbV	86
91) isopropylbenzene	8.063	105	26248	0.215	ppbV	96
92) bromobenzene	8.110	77	14715	0.229	ppbV	90
93) 2-chlorotoluene	8.297	126	7094	0.195	ppbV	87
94) n-propylbenzene	8.317	120	8212	0.189	ppbV	84
95) 4-chlorotoluene	8.337	126	7142	0.218	ppbV	93
96) 4-ethyl toluene	8.390	105	28014	0.225	ppbV	96
97) 1,3,5-trimethylbenzene	8.430	105	23328	0.235	ppbV #	96
98) tert-butylbenzene	8.637	119	25163	0.252	ppbV	96
99) 1,2,4-trimethylbenzene	8.643	105	23239	0.257	ppbV #	90
100) decane	8.683	57	16608	0.209	ppbV	89
101) Benzyl Chloride	8.717	91	4953	0.092	ppbV #	89
102) 1,3-dichlorobenzene	8.723	146	12068	0.231	ppbV #	87
103) 1,4-dichlorobenzene	8.757	146	12477	0.241	ppbV #	87
104) sec-butylbenzene	8.777	105	33487	0.252	ppbV	99
105) 1,2,3-trimethylbenzene	8.863	105	21164	0.283	ppbV	93
106) p-isopropyltoluene	8.857	119	28785M6	0.263	ppbV	
107) 1,2-dichlorobenzene	8.937	146	11348	0.245	ppbV #	85
108) n-butylbenzene	9.083	91	24960	0.256	ppbV	90
109) indan	8.970	117	22488	0.236	ppbV #	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204210.D  
 Acq On : 14 Dec 2022 3:03 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.2  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:03:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:36 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

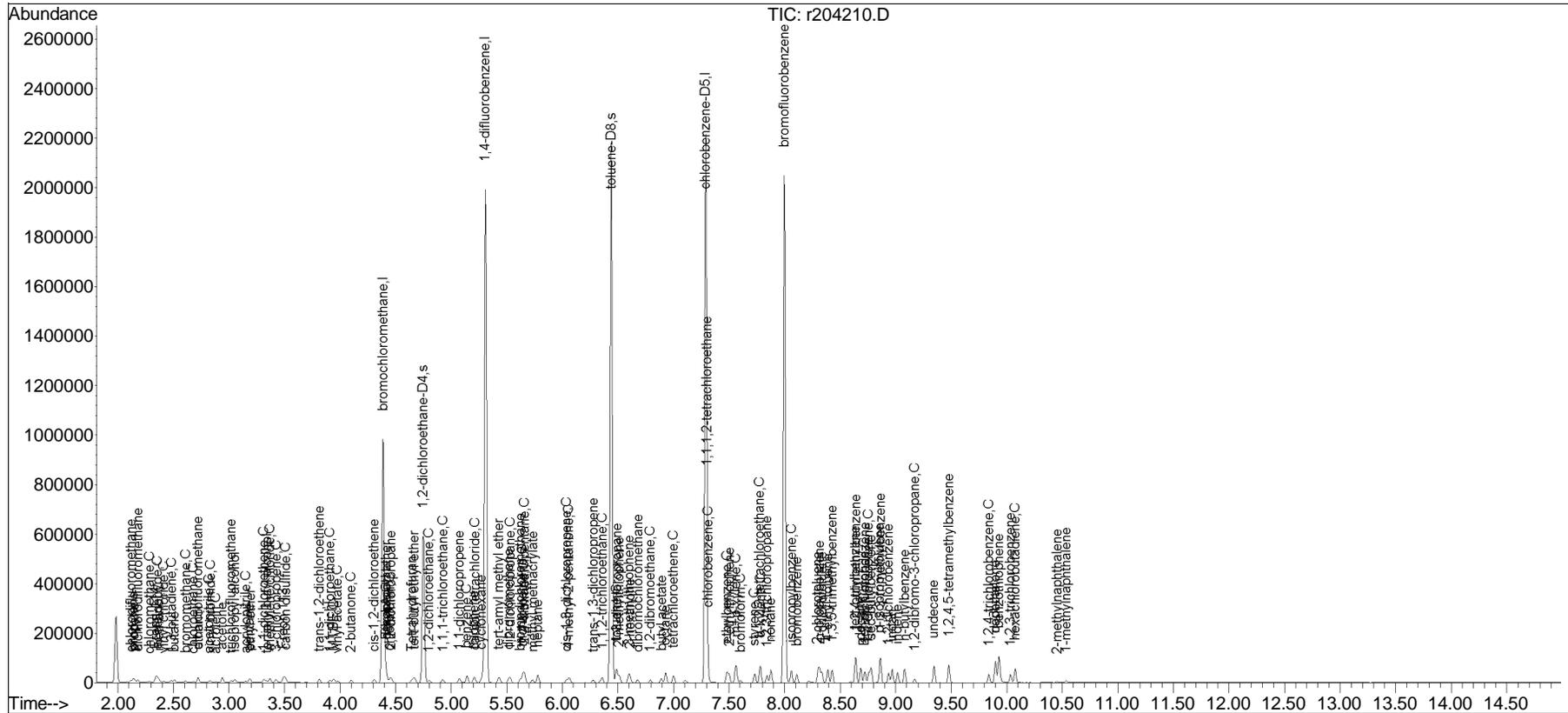
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
110) indene	9.017	115	17042	0.226	ppbV	#	93
111) 1,2-dibromo-3-chloropr...	9.170	75	2634	0.150	ppbV	#	55
112) undecane	9.343	57	18041	0.211	ppbV		92
113) 1,2,4,5-tetramethylben...	9.477	119	33566	0.255	ppbV	#	94
114) dodecane	9.898	57	16817	0.190	ppbV		89
115) 1,2,4-trichlorobenzene	9.838	180	8955	0.202	ppbV	#	86
116) naphthalene	9.898	128	25081	0.208	ppbV	#	93
117) 1,2,3-trichlorobenzene	10.033	180	8527	0.197	ppbV	#	81
118) benzothiophene	9.928	134	65966	0.229	ppbV		97
119) hexachlorobutadiene	10.078	225	10252	0.292	ppbV	#	87
120) 2-methylnaphthalene	10.453	142	1815	0.057	ppbV	#	89
121) 1-methylnaphthalene	10.535	142	4063	0.103	ppbV	#	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204210.D  
Acq On : 14 Dec 2022 3:03 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD0.2  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

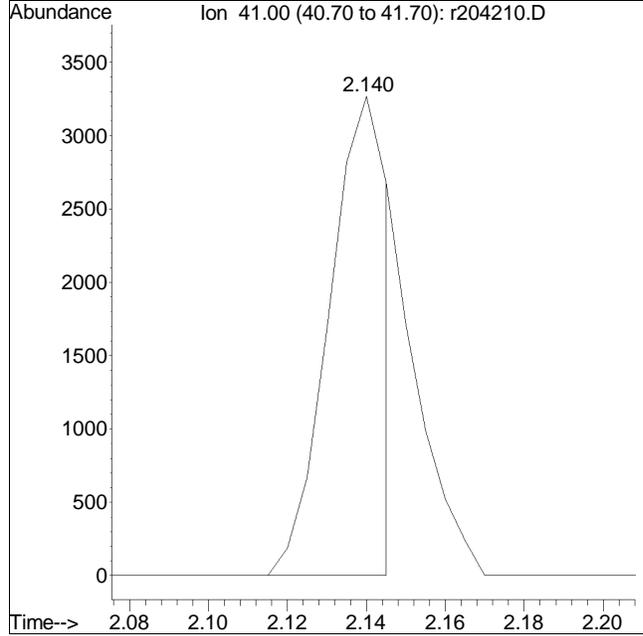
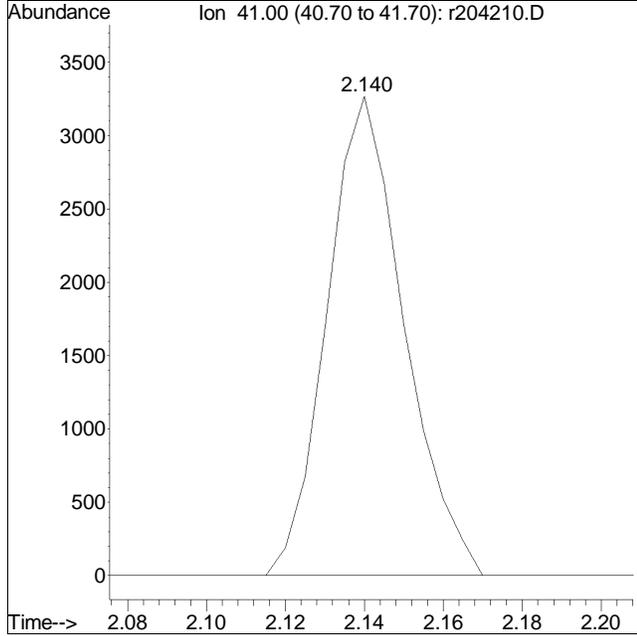
Quant Time: Dec 14 15:03:18 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:36 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : ITO15-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 4431

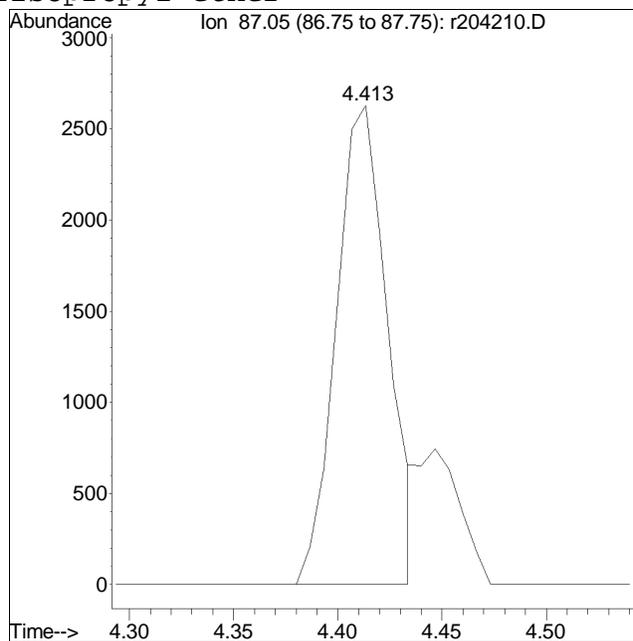
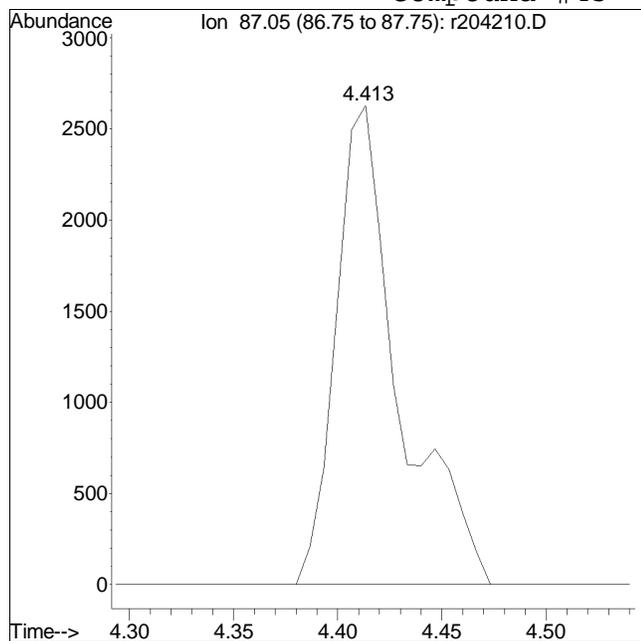
Manual Peak Response = 3394 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

Compound #45: diisopropyl ether



Original Peak Response = 5531

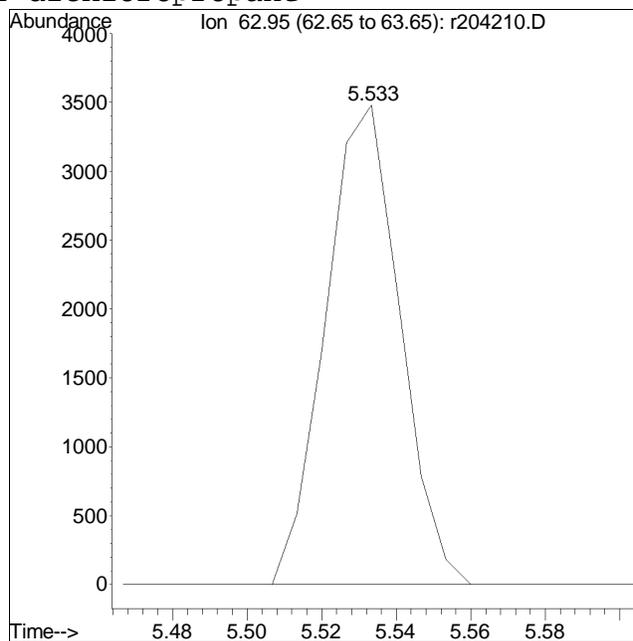
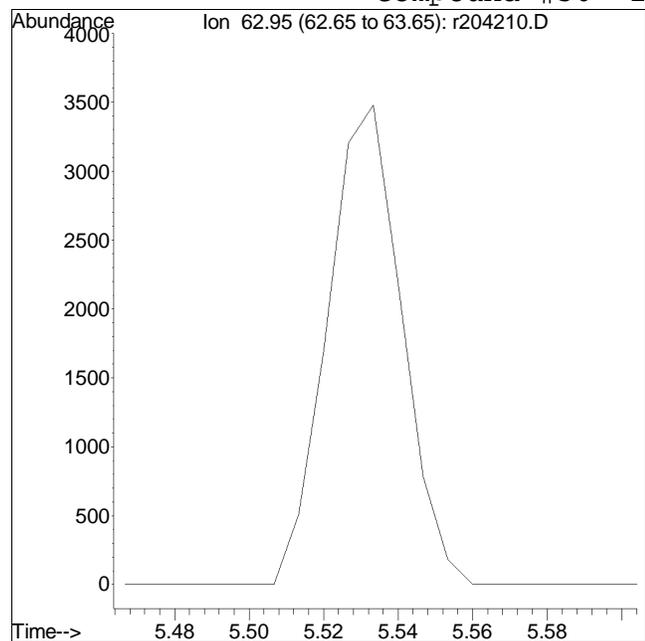
Manual Peak Response = 4491 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20\Method : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

## Compound #56: 1,2-dichloropropane



Original Peak Response = 0

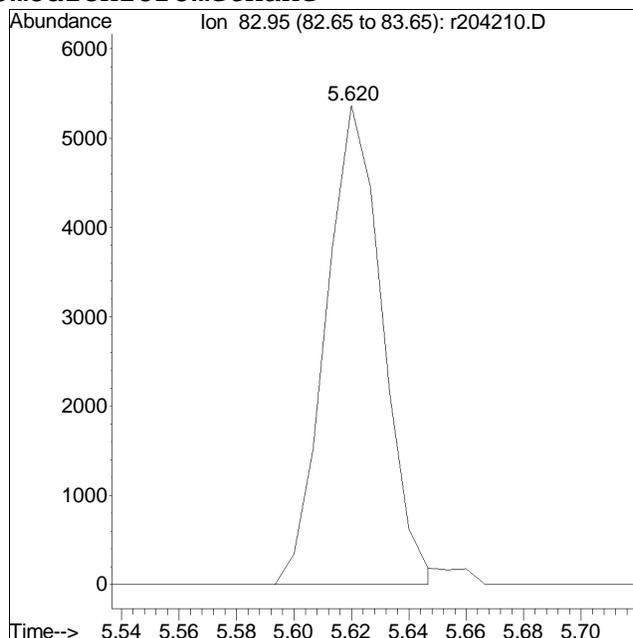
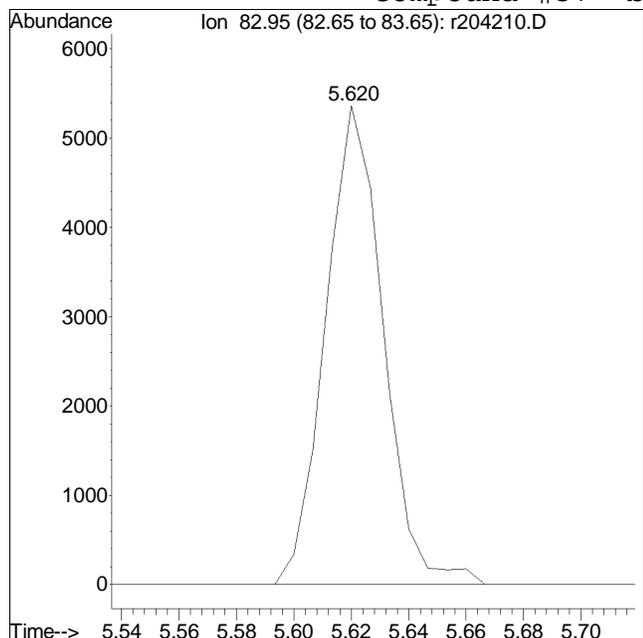
Manual Peak Response = 4818 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : ITO15-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

Compound #57: bromodichloromethane



Original Peak Response = 7496

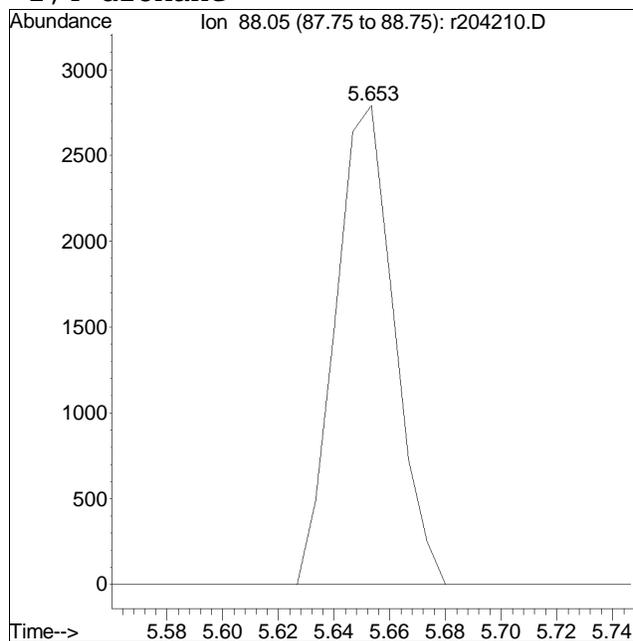
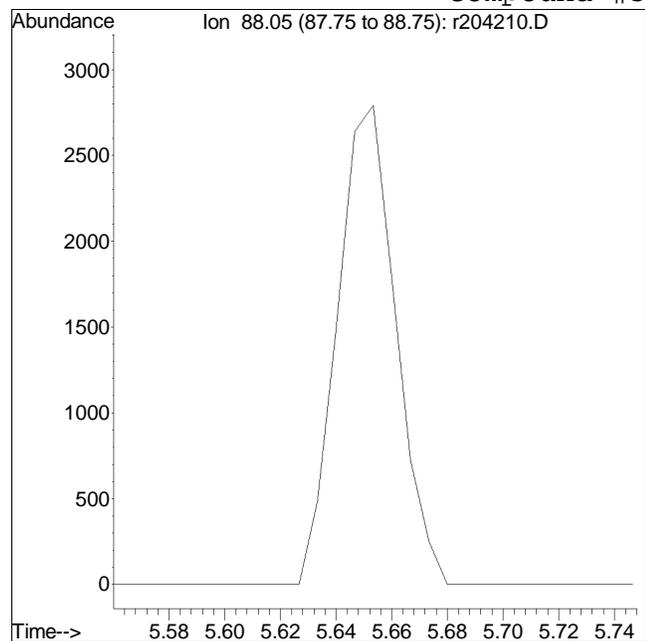
Manual Peak Response = 7358 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

## Compound #58: 1,4-dioxane



Original Peak Response = 0

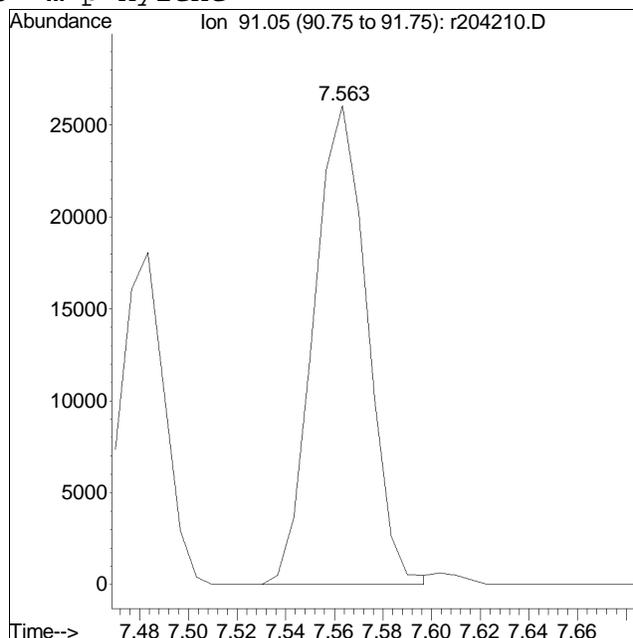
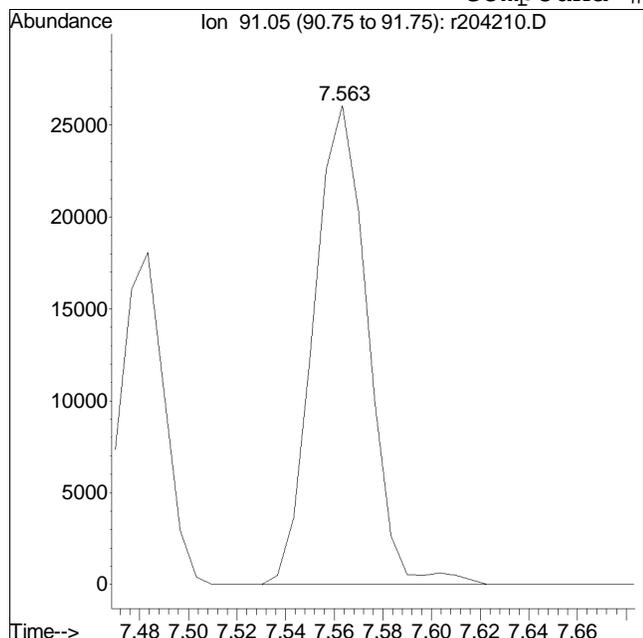
Manual Peak Response = 4070 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

Compound #83: m+p-xylene



Original Peak Response = 40210

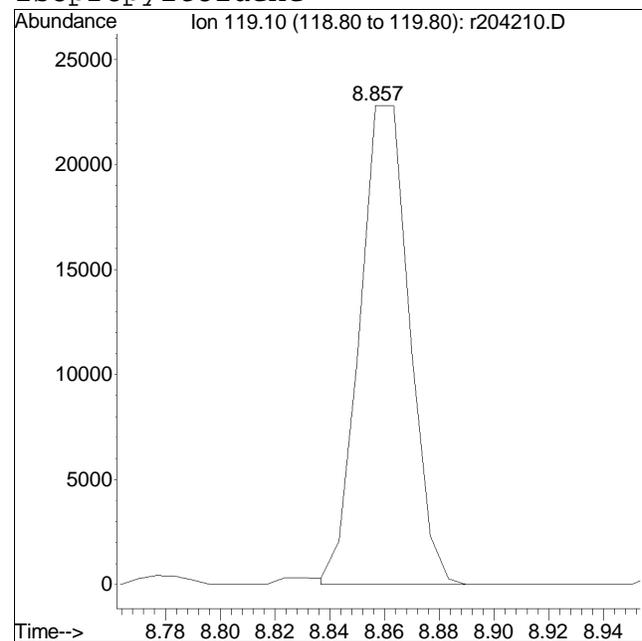
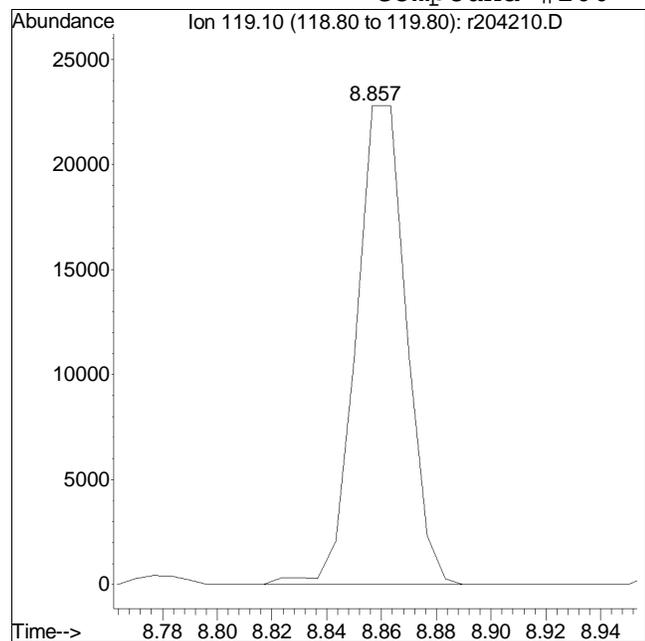
Manual Peak Response = 39650 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204210.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : ITO15-LLSTD0.2 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 29163

Manual Peak Response = 28785 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204211.D  
 Acq On : 14 Dec 2022 3:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:07:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) bromochloromethane	4.387	49	399100	10.000	ppbV	0.00	
Standard Area = 354966			Recovery = 112.43%				
43) 1,4-difluorobenzene	5.307	114	1363996	10.000	ppbV	0.00	
Standard Area = 1399790			Recovery = 97.44%				
67) chlorobenzene-D5	7.290	54	172114	10.000	ppbV	0.00	
Standard Area = 133534			Recovery = 128.89%				
<b>System Monitoring Compounds</b>							
47) 1,2-dichloroethane-D4	4.753	65	303997	16.086	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 160.86%#				
69) toluene-D8	6.440	98	1179700	7.874	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 78.74%				
90) bromofluorobenzene	7.997	95	763285	8.917	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.17%				
<b>Target Compounds</b>							
							Qvalue
2) chlorodifluoromethane	2.120	51	18027	0.539	ppbV		95
3) propylene	2.140	41	7297M6	0.499	ppbV		
4) propane	2.155	29	7209	0.681	ppbV		96
5) dichlorodifluoromethane	2.180	85	17737	0.896	ppbV		100
6) chloromethane	2.285	50	5817	0.572	ppbV		98
7) Freon-114	2.345	85	21565	0.658	ppbV		91
8) methanol	2.370	31	17704	4.222	ppbV #		80
9) vinyl chloride	2.415	62	8006	0.607	ppbV		99
10) 1,3-butadiene	2.485	54	5983	0.619	ppbV		93
11) butane	2.510	43	11167	0.677	ppbV #		95
12) acetaldehyde	2.360	29	17534	3.579	ppbV		90
13) bromomethane	2.610	94	6260	0.666	ppbV		95
14) chloroethane	2.685	64	3069	0.587	ppbV		98
15) ethanol	2.725	31	17214	3.935	ppbV		95
16) dichlorofluoromethane	2.720	67	10419	0.576	ppbV		98
17) vinyl bromide	2.836	106	5887	0.650	ppbV		99
18) acrolein	2.881	56	2567	0.649	ppbV		98
19) acetone	2.941	43	28858	2.968	ppbV #		92
20) acetonitrile	2.821	41	4726	0.565	ppbV		96
21) trichlorofluoromethane	3.022	101	7909	0.670	ppbV		98
22) isopropyl alcohol	3.052	45	22652	1.617	ppbV #		96
23) acrylonitrile	3.151	53	4449	0.612	ppbV		98
24) pentane	3.184	43	9942	0.473	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204211.D  
 Acq On : 14 Dec 2022 3:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:07:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	3.193	31	5487	0.489	ppbV #	90
26) 1,1-dichloroethene	3.315	61	12611	0.541	ppbV	99
27) tertiary butyl alcohol	3.340	59	11837	0.338	ppbV	99
28) methylene chloride	3.370	49	12936	0.616	ppbV	98
29) 3-chloropropene	3.425	41	13779	0.489	ppbV	91
30) carbon disulfide	3.510	76	34380	0.514	ppbV	99
31) Freon 113	3.495	101	20346	0.556	ppbV	96
32) trans-1,2-dichloroethene	3.817	61	16341	0.559	ppbV	94
33) 1,1-dichloroethane	3.910	63	19760	0.570	ppbV	98
34) MTBE	3.943	73	31496	0.577	ppbV	97
35) vinyl acetate	3.977	43	15206	0.422	ppbV	98
36) 2-butanone	4.097	43	23178	0.576	ppbV	93
37) cis-1,2-dichloroethene	4.307	61	14195	0.558	ppbV	96
38) Ethyl Acetate	4.413	61	3222	0.436	ppbV	93
39) chloroform	4.447	83	20173	0.614	ppbV	98
40) Tetrahydrofuran	4.647	42	15246	0.551	ppbV	90
41) 2,2-dichloropropane	4.460	77	11824	0.486	ppbV #	71
42) 1,2-dichloroethane	4.800	62	12802	0.805	ppbV	97
44) hexane	4.413	57	19607	0.588	ppbV	80
45) diisopropyl ether	4.413	87	12364	0.618	ppbV	80
46) tert-butyl ethyl ether	4.667	59	31296	0.561	ppbV	100
48) 1,1,1-trichloroethane	4.927	97	19409	0.774	ppbV	97
49) 1,1-dichloropropene	5.073	75	17741	0.666	ppbV	95
50) benzene	5.147	78	42017	0.629	ppbV	100
51) thiophene	5.207	84	22565	0.552	ppbV	97
52) carbon tetrachloride	5.213	117	11506	0.646	ppbV	96
53) cyclohexane	5.280	56	21399	0.574	ppbV	94
54) tert-amyl methyl ether	5.427	73	32276	0.567	ppbV	95
55) dibromomethane	5.520	93	11364	0.685	ppbV	97
56) 1,2-dichloropropane	5.533	63	12774	0.623	ppbV	98
57) bromodichloromethane	5.620	83	18447M6	0.650	ppbV	
58) 1,4-dioxane	5.647	88	9715	0.627	ppbV	85
59) trichloroethene	5.640	130	14858	0.631	ppbV	98
60) 2,2,4-trimethylpentane	5.660	57	64890	0.612	ppbV	96
61) methyl methacrylate	5.733	41	10961	0.539	ppbV	93
62) heptane	5.780	43	23648	0.653	ppbV	92
63) cis-1,3-dichloropropene	6.040	75	15668	0.534	ppbV	93
64) 4-methyl-2-pentanone	6.060	43	28510	0.673	ppbV	95
65) trans-1,3-dichloropropene	6.280	75	12698	0.499	ppbV	100
66) 1,1,2-trichloroethane	6.360	97	13788	0.593	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204211.D  
 Acq On : 14 Dec 2022 3:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:07:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	52076	0.527	ppbV	97
70) 2-methylthiophene	6.513	97	36698	0.445	ppbV	100
71) 1,3-dichloropropane	6.493	76	22741	0.508	ppbV	89
72) 2-hexanone	6.607	43	25757M6	0.516	ppbV	
73) 3-methylthiophene	6.593	97	37781	0.468	ppbV	99
74) dibromochloromethane	6.680	129	13031	0.406	ppbV	94
75) 1,2-dibromoethane	6.793	107	17352	0.396	ppbV	99
76) butyl acetate	6.887	73	3836	0.276	ppbV	80
77) octane	6.927	85	19104	0.451	ppbV	81
78) tetrachloroethene	7.000	166	16318	0.474	ppbV #	90
79) 1,1,1,2-tetrachloroethane	7.303	131	8922	0.372	ppbV	96
80) chlorobenzene	7.310	112	36844	0.463	ppbV	92
81) ethylbenzene	7.483	91	57513	0.483	ppbV	99
82) 2-ethylthiophene	7.503	97	45658	0.515	ppbV	95
83) m+p-xylene	7.563	91	98159	1.101	ppbV	95
84) bromoform	7.603	173	8466	0.321	ppbV	99
85) styrene	7.730	104	37874	0.464	ppbV #	92
86) 1,1,2,2-tetrachloroethane	7.777	83	30387	0.485	ppbV	96
87) o-xylene	7.783	91	49310	0.573	ppbV	90
88) 1,2,3-trichloropropane	7.843	75	27552	0.578	ppbV	99
89) nonane	7.877	43	34792	0.556	ppbV	85
91) isopropylbenzene	8.063	105	65928	0.533	ppbV	100
92) bromobenzene	8.110	77	36640	0.563	ppbV	92
93) 2-chlorotoluene	8.303	126	18376M6	0.499	ppbV	
94) n-propylbenzene	8.317	120	21615	0.492	ppbV	88
95) 4-chlorotoluene	8.337	126	17609	0.531	ppbV	91
96) 4-ethyl toluene	8.390	105	71823	0.569	ppbV	97
97) 1,3,5-trimethylbenzene	8.430	105	61251	0.608	ppbV	95
98) tert-butylbenzene	8.637	119	63116M6	0.625	ppbV	
99) 1,2,4-trimethylbenzene	8.643	105	61308	0.669	ppbV	90
100) decane	8.683	57	44598	0.553	ppbV	84
101) Benzyl Chloride	8.717	91	12852	0.236	ppbV	90
102) 1,3-dichlorobenzene	8.723	146	30541	0.577	ppbV #	83
103) 1,4-dichlorobenzene	8.757	146	31623	0.602	ppbV #	86
104) sec-butylbenzene	8.777	105	85777	0.636	ppbV	99
105) 1,2,3-trimethylbenzene	8.863	105	55954	0.739	ppbV	95
106) p-isopropyltoluene	8.863	119	77238M6	0.695	ppbV	
107) 1,2-dichlorobenzene	8.937	146	29627	0.631	ppbV #	86
108) n-butylbenzene	9.083	91	66724	0.675	ppbV	92
109) indan	8.970	117	58570	0.607	ppbV #	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204211.D  
 Acq On : 14 Dec 2022 3:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD0.5  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:07:18 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

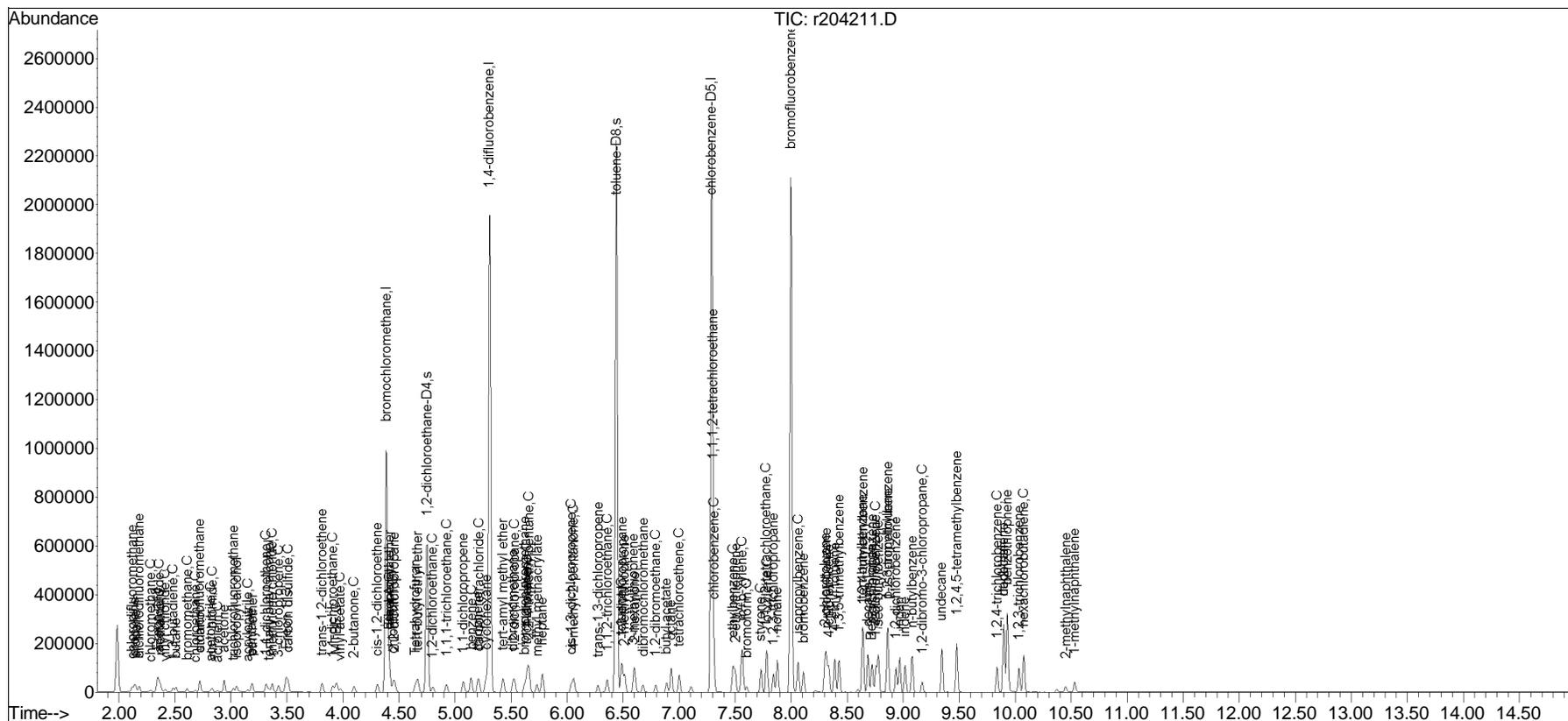
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
110) indene	9.017	115	44647	0.586	ppbV	#	95
111) 1,2-dibromo-3-chloropr...	9.170	75	7496	0.421	ppbV	#	58
112) undecane	9.343	57	49360	0.569	ppbV		91
113) 1,2,4,5-tetramethylben...	9.477	119	90982	0.682	ppbV	#	92
114) dodecane	9.898	57	48694	0.544	ppbV		90
115) 1,2,4-trichlorobenzene	9.838	180	25825	0.576	ppbV	#	88
116) naphthalene	9.898	128	72745	0.597	ppbV	#	93
117) 1,2,3-trichlorobenzene	10.033	180	24986	0.569	ppbV	#	88
118) benzothiophene	9.928	134	193127	0.661	ppbV		98
119) hexachlorobutadiene	10.078	225	27745	0.781	ppbV	#	87
120) 2-methylnaphthalene	10.453	142	10674	0.329	ppbV	#	94
121) 1-methylnaphthalene	10.528	142	18544	0.466	ppbV	#	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204211.D  
Acq On : 14 Dec 2022 3:33 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD0.5  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

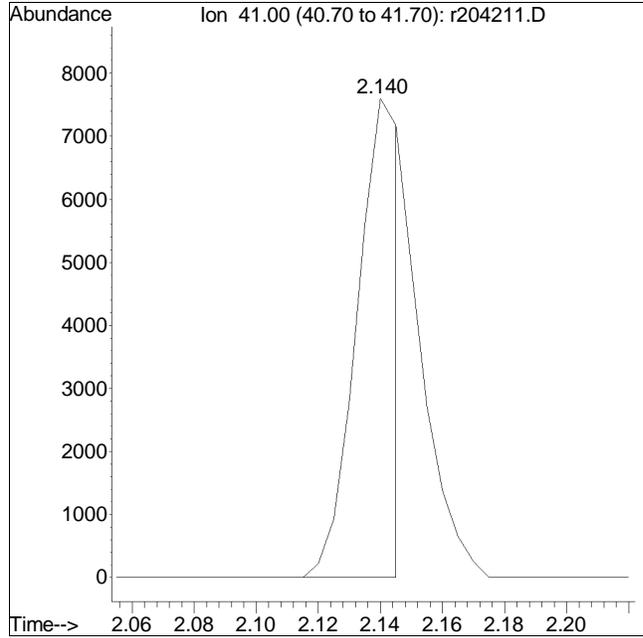
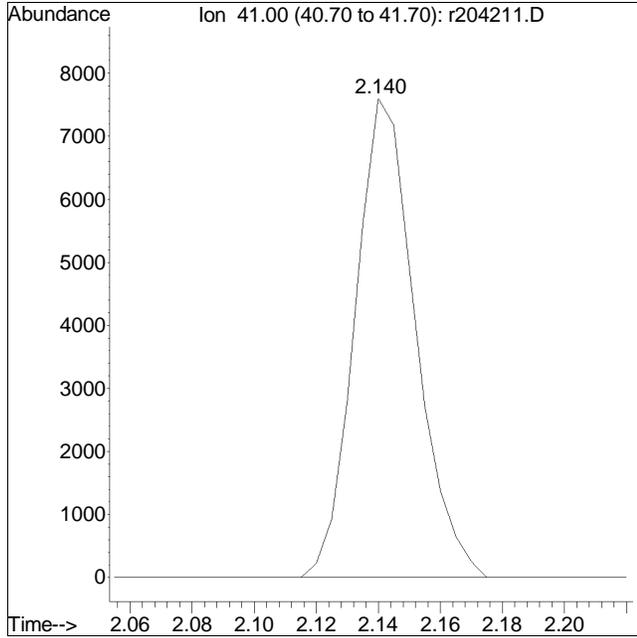
Quant Time: Dec 14 15:07:18 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : ITO15-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 10270

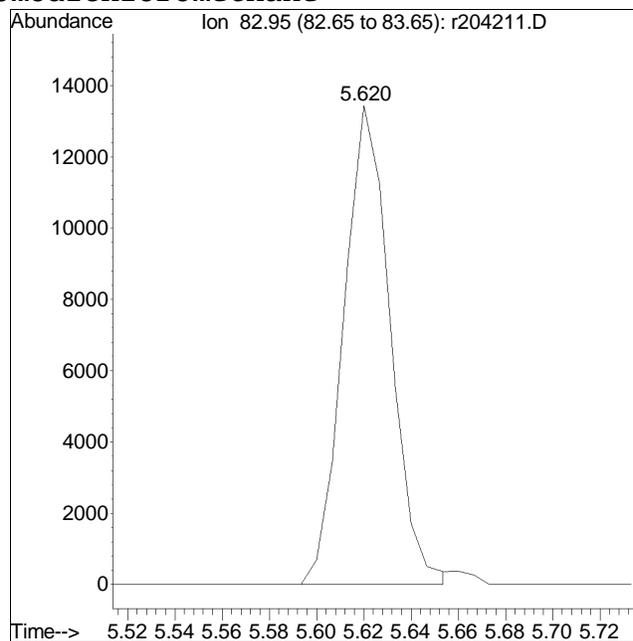
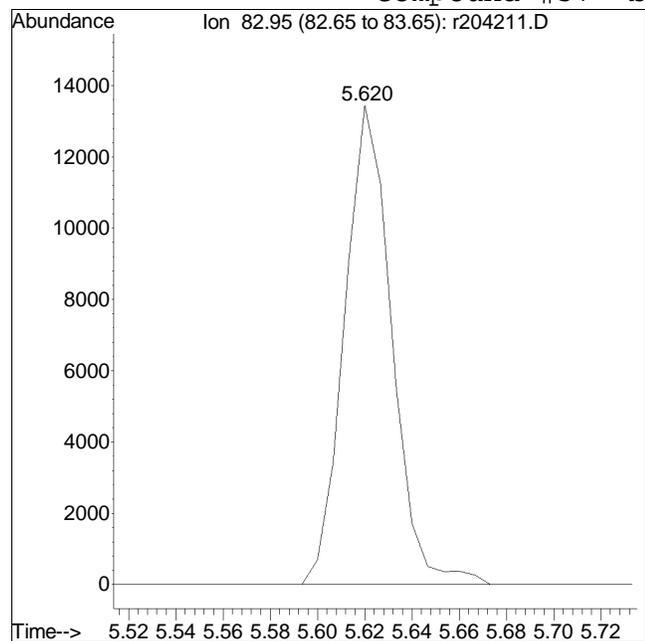
Manual Peak Response = 7297 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

## Compound #57: bromodichloromethane



Original Peak Response = 18706

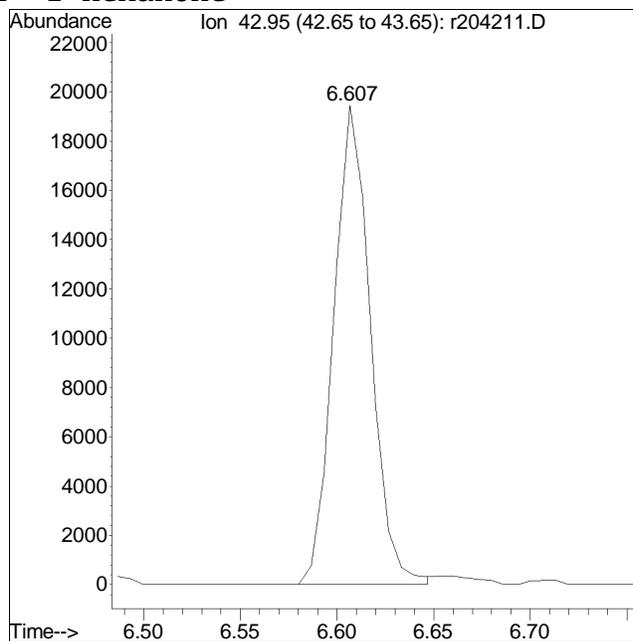
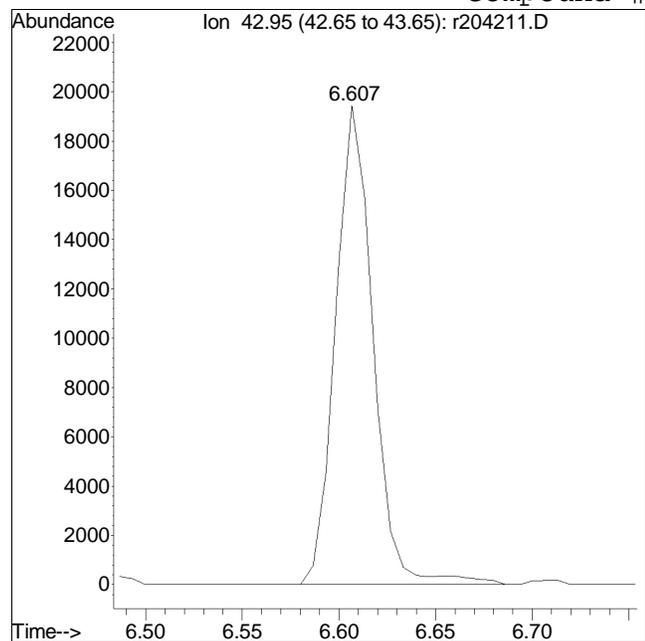
Manual Peak Response = 18447 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

## Compound #72: 2-hexanone



Original Peak Response = 26302

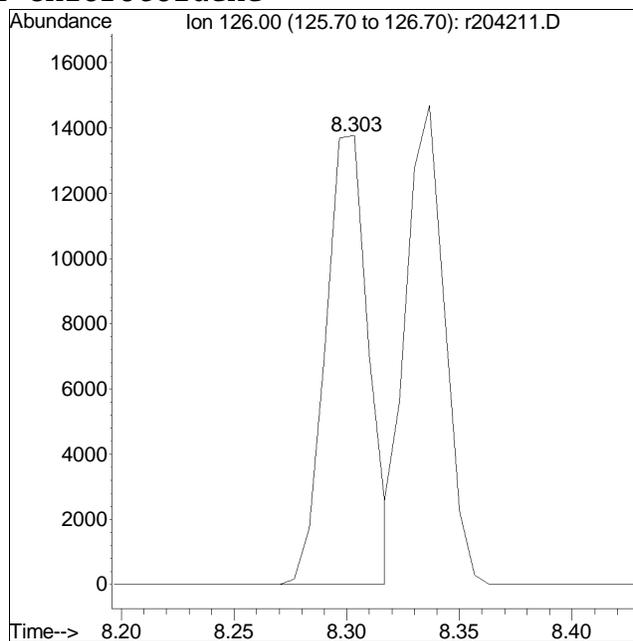
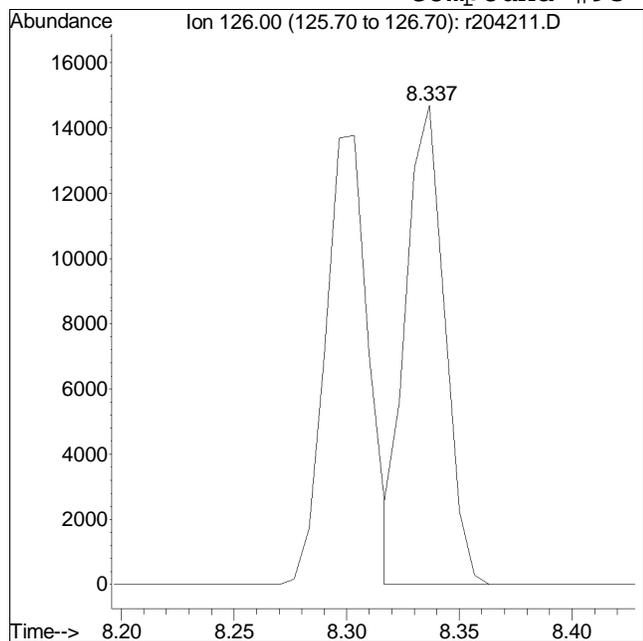
Manual Peak Response = 25757 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

Compound #93: 2-chlorotoluene



Original Peak Response = 17609

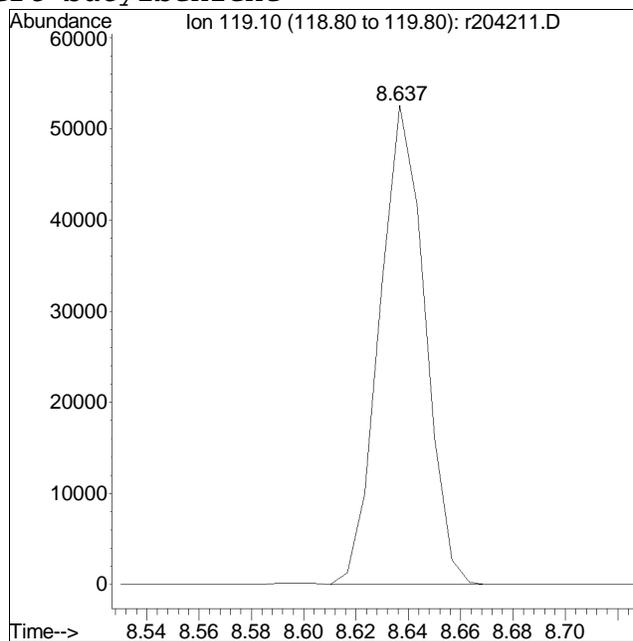
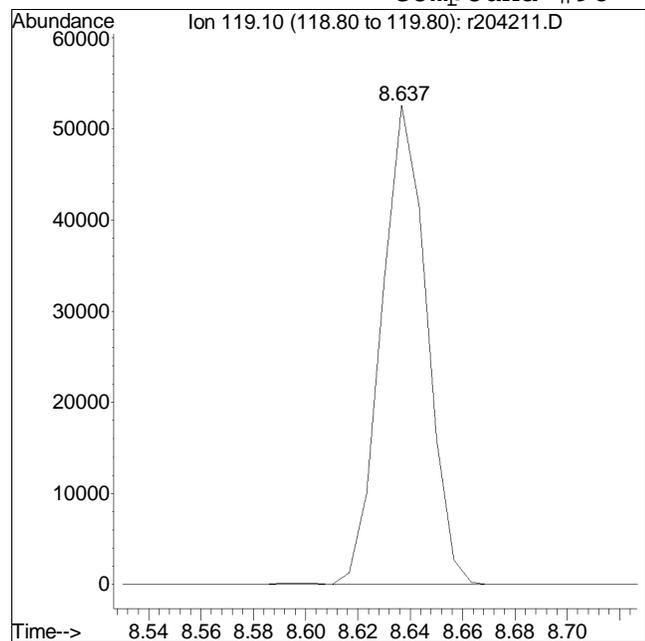
Manual Peak Response = 18376 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

Compound #98: tert-butylbenzene



Original Peak Response = 63323

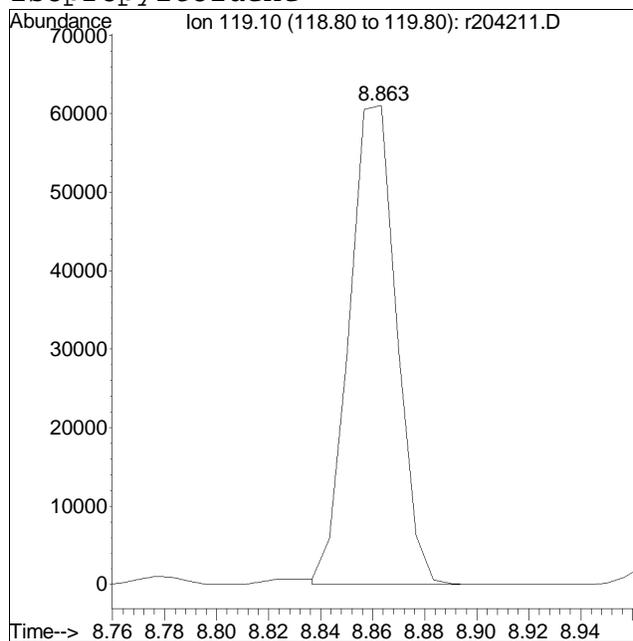
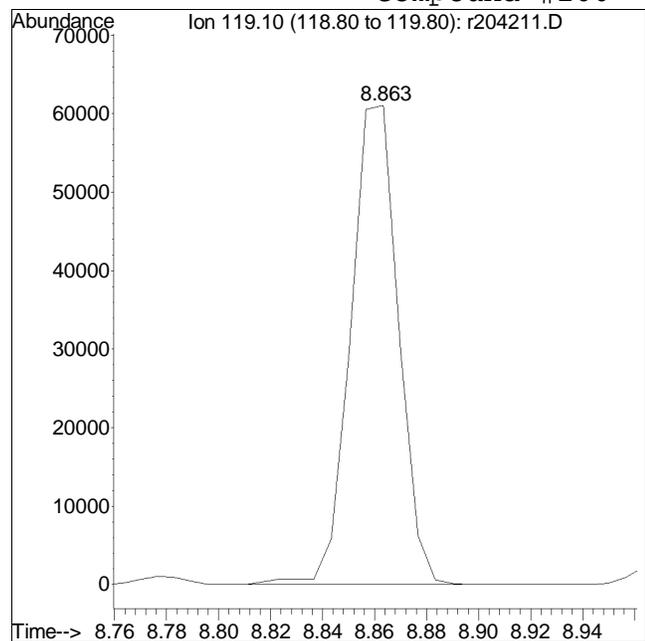
Manual Peak Response = 63116 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20\Method : TFS20\_221213.M  
Data File : r204211.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:3: 3 Instrument :  
Sample : IT015-LLSTD0.5 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 78259

Manual Peak Response = 77238 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204212.D  
 Acq On : 14 Dec 2022 4:05 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:11:40 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.393	49	401372	10.000	ppbV	0.00
Standard Area = 354966			Recovery = 113.07%			
43) 1,4-difluorobenzene	5.313	114	1404284	10.000	ppbV	0.00
Standard Area = 1399790			Recovery = 100.32%			
67) chlorobenzene-D5	7.290	54	173327	10.000	ppbV	0.00
Standard Area = 133534			Recovery = 129.80%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.753	65	305779	15.717	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 157.17%#			
69) toluene-D8	6.440	98	1207956	8.006	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.06%			
90) bromofluorobenzene	7.997	95	793585	9.206	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.06%			
<b>Target Compounds</b>						
						Qvalue
2) chlorodifluoromethane	2.135	51	36365	1.081	ppbV	98
3) propylene	2.155	41	15997M6	1.087	ppbV	
4) propane	2.165	29	12544	1.178	ppbV #	80
5) dichlorodifluoromethane	2.195	85	35156	1.767	ppbV	100
6) chloromethane	2.300	50	11948	1.167	ppbV	99
7) Freon-114	2.355	85	43033	1.306	ppbV	97
8) methanol	2.385	31	32908	7.803	ppbV #	77
9) vinyl chloride	2.425	62	15883	1.198	ppbV	98
10) 1,3-butadiene	2.495	54	11987	1.233	ppbV	92
11) butane	2.520	43	21149	1.275	ppbV #	94
12) acetaldehyde	2.370	29	32757	6.648	ppbV	99
13) bromomethane	2.615	94	12461	1.319	ppbV	93
14) chloroethane	2.690	64	6094	1.160	ppbV	97
15) ethanol	2.730	31	26893	6.113	ppbV	96
16) dichlorofluoromethane	2.730	67	25026	1.375	ppbV	98
17) vinyl bromide	2.842	106	12134	1.332	ppbV	100
18) acrolein	2.887	56	4823	1.212	ppbV	96
19) acetone	2.944	43	60600	6.198	ppbV #	89
20) acetonitrile	2.827	41	9449	1.124	ppbV	100
21) trichlorofluoromethane	3.028	101	16188	1.363	ppbV	98
22) isopropyl alcohol	3.055	45	42819	3.039	ppbV #	96
23) acrylonitrile	3.157	53	9163	1.253	ppbV	96
24) pentane	3.190	43	23280	1.102	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204212.D  
 Acq On : 14 Dec 2022 4:05 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:11:40 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) ethyl ether	3.199	31	13358	1.183	ppbV	#	87
26) 1,1-dichloroethene	3.320	61	30860	1.317	ppbV		95
27) tertiary butyl alcohol	3.340	59	25907	0.736	ppbV		98
28) methylene chloride	3.375	49	24888	1.179	ppbV		94
29) 3-chloropropene	3.430	41	27874	0.984	ppbV		91
30) carbon disulfide	3.515	76	69455	1.033	ppbV		99
31) Freon 113	3.500	101	40727	1.106	ppbV		97
32) trans-1,2-dichloroethene	3.817	61	33342	1.134	ppbV		95
33) 1,1-dichloroethane	3.917	63	39700	1.139	ppbV		100
34) MTBE	3.943	73	65194	1.188	ppbV		97
35) vinyl acetate	3.983	43	30819	0.850	ppbV		96
36) 2-butanone	4.103	43	47083	1.163	ppbV		94
37) cis-1,2-dichloroethene	4.313	61	29577	1.156	ppbV		94
38) Ethyl Acetate	4.420	61	6754	0.908	ppbV		91
39) chloroform	4.453	83	41195	1.246	ppbV		97
40) Tetrahydrofuran	4.647	42	30529	1.097	ppbV		91
41) 2,2-dichloropropane	4.467	77	26007	1.064	ppbV	#	74
42) 1,2-dichloroethane	4.807	62	25948	1.623	ppbV		97
44) hexane	4.413	57	40625	1.184	ppbV		77
45) diisopropyl ether	4.413	87	24026	1.166	ppbV		85
46) tert-butyl ethyl ether	4.667	59	65386	1.139	ppbV		99
48) 1,1,1-trichloroethane	4.927	97	39708	1.538	ppbV		98
49) 1,1-dichloropropene	5.080	75	36652	1.337	ppbV		94
50) benzene	5.147	78	82845	1.204	ppbV		99
51) thiophene	5.207	84	46718	1.111	ppbV		96
52) carbon tetrachloride	5.220	117	24138	1.317	ppbV		98
53) cyclohexane	5.280	56	43746	1.140	ppbV		96
54) tert-amyl methyl ether	5.427	73	67570	1.153	ppbV		95
55) dibromomethane	5.520	93	23055	1.350	ppbV		97
56) 1,2-dichloropropane	5.533	63	25539	1.210	ppbV		98
57) bromodichloromethane	5.620	83	38246M6	1.309	ppbV		
58) 1,4-dioxane	5.647	88	18549	1.163	ppbV	#	82
59) trichloroethene	5.640	130	29822	1.231	ppbV		98
60) 2,2,4-trimethylpentane	5.660	57	129710	1.188	ppbV		95
61) methyl methacrylate	5.733	41	23597	1.128	ppbV		92
62) heptane	5.780	43	48093	1.289	ppbV		90
63) cis-1,3-dichloropropene	6.040	75	33132	1.097	ppbV		94
64) 4-methyl-2-pentanone	6.060	43	58166	1.333	ppbV		95
65) trans-1,3-dichloropropene	6.280	75	26988	1.030	ppbV		99
66) 1,1,2-trichloroethane	6.360	97	28693	1.198	ppbV		93

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204212.D  
 Acq On : 14 Dec 2022 4:05 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:11:40 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	100028	1.006	ppbV	98
70) 2-methylthiophene	6.513	97	75881	0.913	ppbV	97
71) 1,3-dichloropropane	6.493	76	46475	1.031	ppbV	89
72) 2-hexanone	6.607	43	52342	1.041	ppbV	92
73) 3-methylthiophene	6.600	97	78162	0.961	ppbV	100
74) dibromochloromethane	6.680	129	28790	0.890	ppbV	98
75) 1,2-dibromoethane	6.793	107	37132	0.842	ppbV	99
76) butyl acetate	6.887	73	8790	0.629	ppbV	82
77) octane	6.933	85	39425	0.925	ppbV	85
78) tetrachloroethene	7.000	166	33970	0.981	ppbV #	93
79) 1,1,1,2-tetrachloroethane	7.303	131	19812	0.820	ppbV	98
80) chlorobenzene	7.310	112	74639	0.932	ppbV	93
81) ethylbenzene	7.483	91	117715	0.982	ppbV	99
82) 2-ethylthiophene	7.503	97	91710	1.027	ppbV	96
83) m+p-xylene	7.563	91	202295	2.253	ppbV	94
84) bromoform	7.603	173	18168	0.685	ppbV	98
85) styrene	7.730	104	78805	0.959	ppbV #	93
86) 1,1,2,2-tetrachloroethane	7.777	83	63456	1.006	ppbV	99
87) o-xylene	7.783	91	102101	1.178	ppbV	91
88) 1,2,3-trichloropropane	7.843	75	56731	1.181	ppbV	98
89) nonane	7.877	43	71833	1.141	ppbV	84
91) isopropylbenzene	8.063	105	135964	1.092	ppbV	99
92) bromobenzene	8.110	77	75975	1.160	ppbV	89
93) 2-chlorotoluene	8.303	126	37137M6	1.002	ppbV	
94) n-propylbenzene	8.317	120	44586	1.007	ppbV	86
95) 4-chlorotoluene	8.337	126	37717	1.129	ppbV	95
96) 4-ethyl toluene	8.390	105	148760	1.170	ppbV	98
97) 1,3,5-trimethylbenzene	8.430	105	124350	1.226	ppbV	97
98) tert-butylbenzene	8.637	119	134306	1.320	ppbV	96
99) 1,2,4-trimethylbenzene	8.643	105	126530	1.372	ppbV	91
100) decane	8.683	57	92741	1.141	ppbV	86
101) Benzyl Chloride	8.717	91	31336	0.571	ppbV #	87
102) 1,3-dichlorobenzene	8.723	146	63674	1.195	ppbV #	84
103) 1,4-dichlorobenzene	8.757	146	64826	1.225	ppbV #	88
104) sec-butylbenzene	8.777	105	178926	1.318	ppbV	98
105) 1,2,3-trimethylbenzene	8.863	105	115691	1.518	ppbV	94
106) p-isopropyltoluene	8.857	119	156284M6	1.397	ppbV	
107) 1,2-dichlorobenzene	8.937	146	60807	1.286	ppbV #	86
108) n-butylbenzene	9.083	91	136532	1.371	ppbV	93
109) indan	8.970	117	119940	1.235	ppbV #	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204212.D  
 Acq On : 14 Dec 2022 4:05 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD1.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:11:40 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

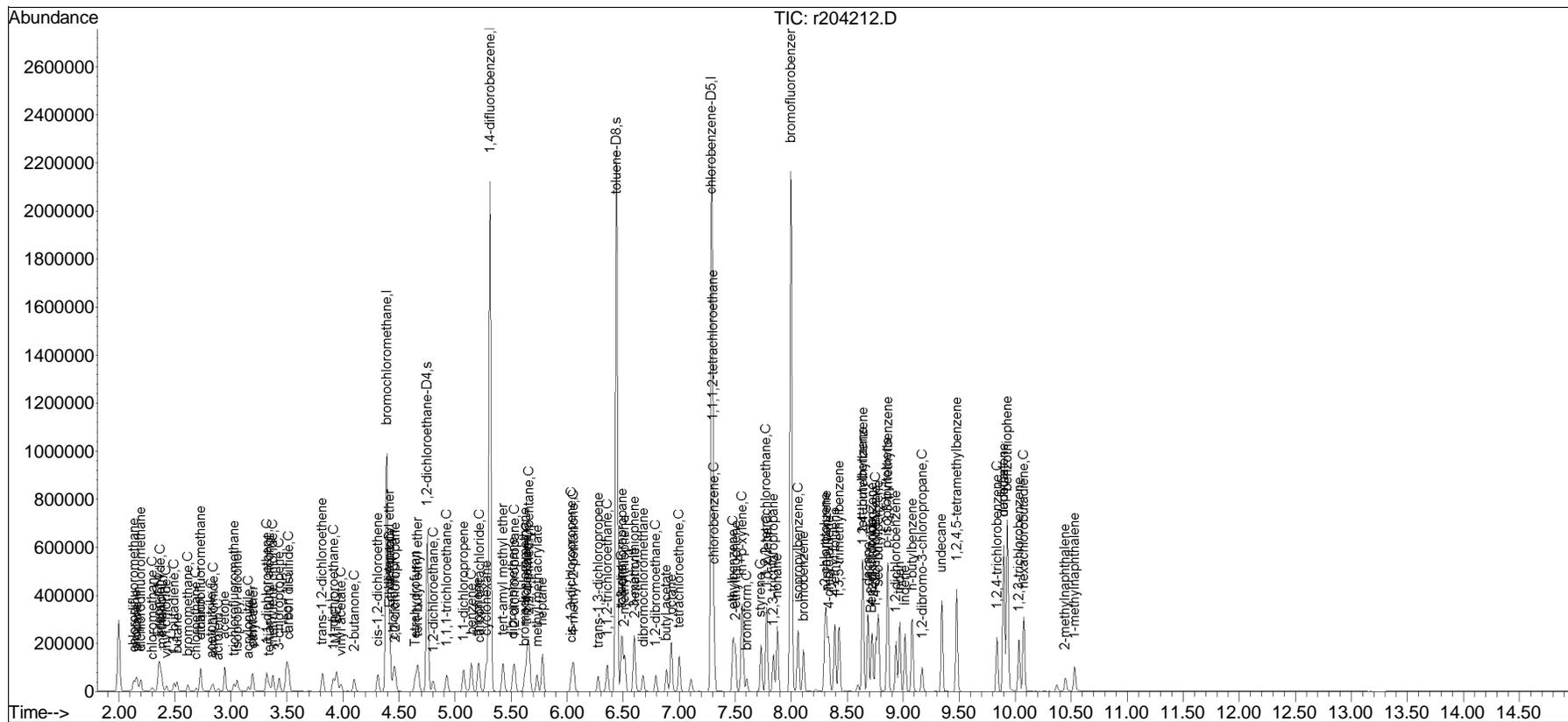
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
110) indene	9.017	115	95378	1.242	ppbV	#	96
111) 1,2-dibromo-3-chloropr...	9.170	75	18551	1.036	ppbV	#	64
112) undecane	9.343	57	104455	1.195	ppbV		90
113) 1,2,4,5-tetramethylben...	9.477	119	188616	1.404	ppbV	#	93
114) dodecane	9.898	57	100651M6	1.117	ppbV		
115) 1,2,4-trichlorobenzene	9.838	180	54855	1.215	ppbV	#	90
116) naphthalene	9.898	128	157369	1.282	ppbV	#	94
117) 1,2,3-trichlorobenzene	10.033	180	52081	1.177	ppbV	#	88
118) benzothiophene	9.928	134	412865	1.403	ppbV		98
119) hexachlorobutadiene	10.078	225	55290	1.545	ppbV	#	89
120) 2-methylnaphthalene	10.445	142	24262	0.742	ppbV	#	92
121) 1-methylnaphthalene	10.528	142	42776	1.068	ppbV	#	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204212.D  
Acq On : 14 Dec 2022 4:05 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD1.0  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

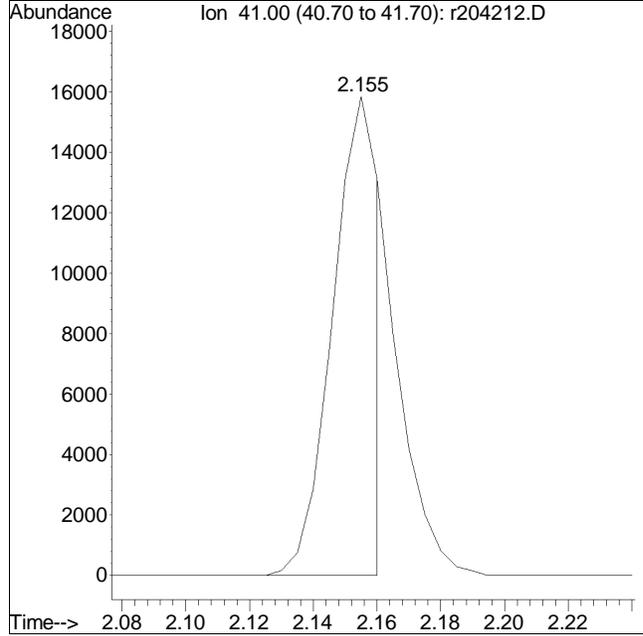
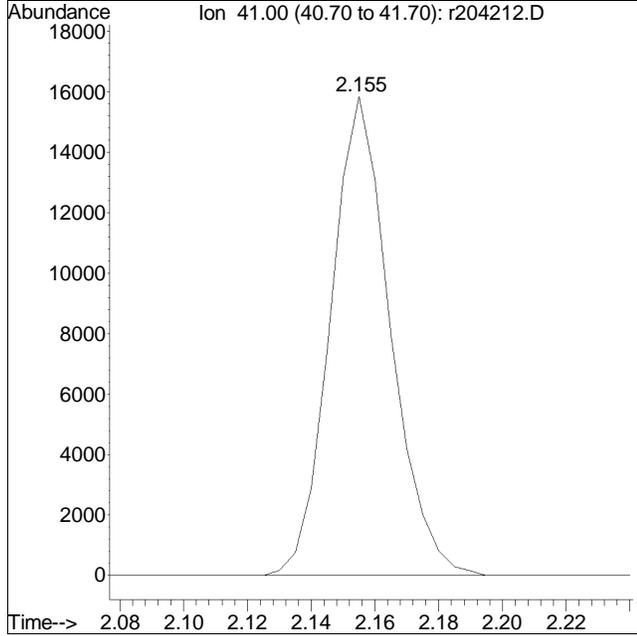
Quant Time: Dec 14 15:11:40 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204212.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:4: 5 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 20639

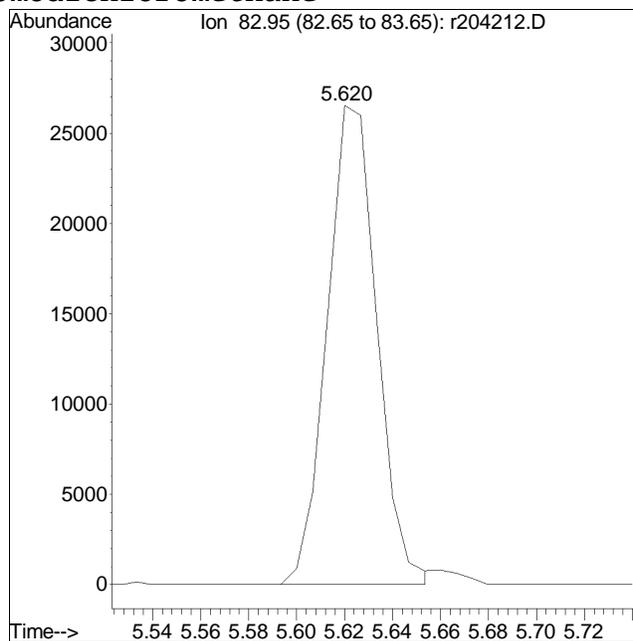
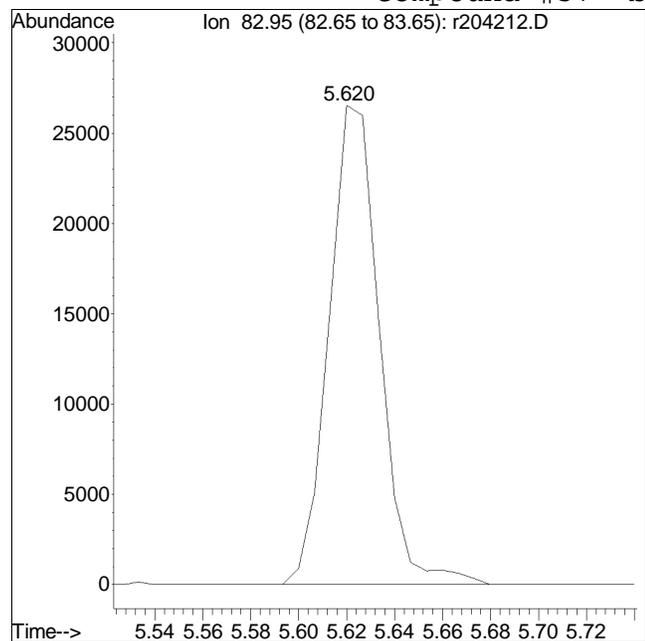
Manual Peak Response = 15997 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204212.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:4: 5 Instrument :  
Sample : IT015-LLSTD1.0 Quant Date : 12/14/2022 12:14 pm

## Compound #57: bromodichloromethane



Original Peak Response = 38955

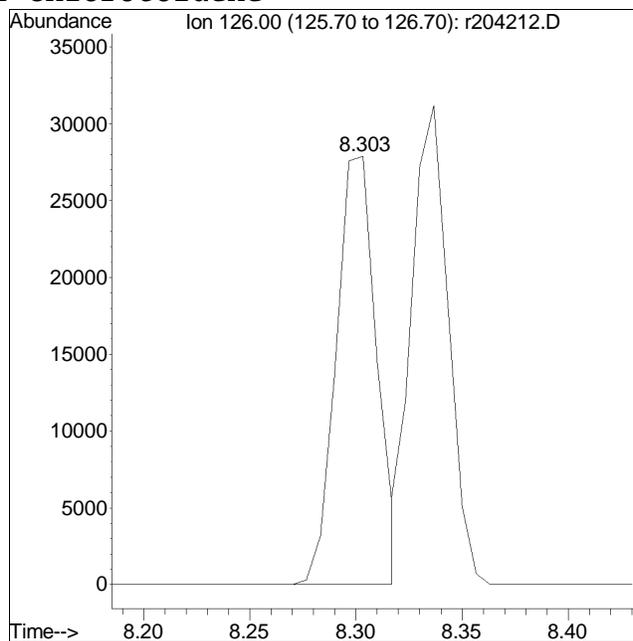
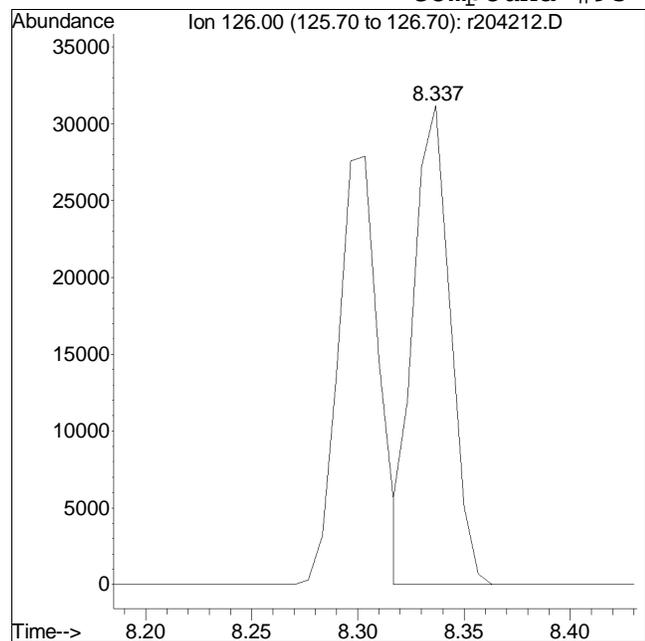
Manual Peak Response = 38246 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204212.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:4: 5 Instrument :  
Sample : IT015-LLSTD1.0 Quant Date : 12/14/2022 12:14 pm

Compound #93: 2-chlorotoluene



Original Peak Response = 37717

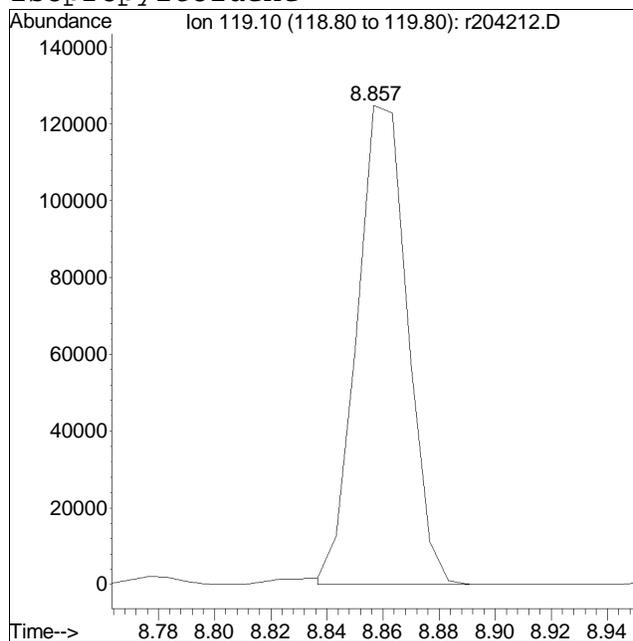
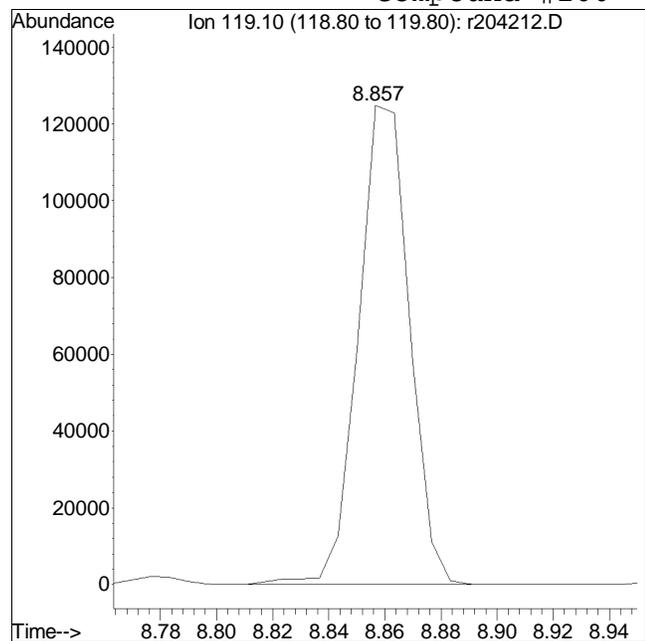
Manual Peak Response = 37137 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204212.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:4: 5 Instrument :  
Sample : IT015-LLSTD1.0 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 158431

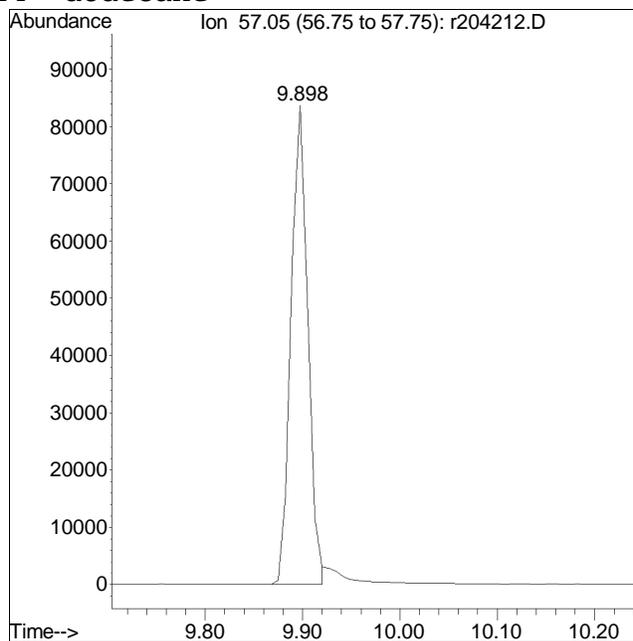
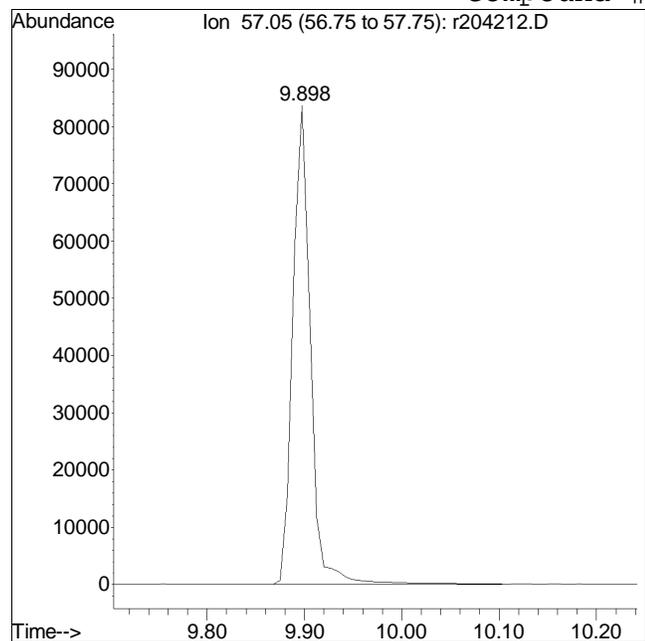
Manual Peak Response = 156284 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204212.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:4: 5 Instrument :  
Sample : ITO15-LLSTD1.0 Quant Date : 12/14/2022 12:14 pm

Compound #114: dodecane



Original Peak Response = 106707

Manual Peak Response = 100651 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204219.D  
 Acq On : 14 Dec 2022 10:00 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:38:43 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.387	49	333852	10.000	ppbV	0.00
Standard Area = 354966			Recovery =	94.05%		
43) 1,4-difluorobenzene	5.307	114	1314299	10.000	ppbV	0.00
Standard Area = 1399790			Recovery =	93.89%		
67) chlorobenzene-D5	7.290	54	128713	10.000	ppbV	0.00
Standard Area = 133534			Recovery =	96.39%		
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.747	65	177747	9.761	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.61%		
69) toluene-D8	6.440	98	1090187	9.730	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.30%		
90) bromofluorobenzene	7.997	95	643645	10.055	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.55%		
<b>Target Compounds</b>						
2) chlorodifluoromethane	2.120	51	148577	5.310	ppbV #	89
3) propylene	2.145	41	73497M6	6.005	ppbV	
4) propane	2.155	29	49564	5.596	ppbV #	89
5) dichlorodifluoromethane	2.185	85	96139	5.808	ppbV	100
6) chloromethane	2.290	50	46041	5.408	ppbV	97
7) Freon-114	2.345	85	152661	5.572	ppbV	91
8) methanol	2.375	31	98385	28.048	ppbV #	79
9) vinyl chloride	2.420	62	60730	5.507	ppbV	96
10) 1,3-butadiene	2.485	54	44539	5.506	ppbV	97
11) butane	2.515	43	77527	5.620	ppbV	96
12) acetaldehyde	2.360	29	116537	28.436	ppbV	95
13) bromomethane	2.610	94	42656	5.427	ppbV	95
14) chloroethane	2.685	64	24041	5.501	ppbV	96
15) ethanol	2.725	31	107788	29.456	ppbV	93
16) dichlorofluoromethane	2.725	67	75137	4.964	ppbV	99
17) vinyl bromide	2.836	106	41211	5.438	ppbV	100
18) acrolein	2.881	56	18408	5.562	ppbV	97
19) acetone	2.938	43	225235	27.696	ppbV	99
20) acetonitrile	2.821	41	38554	5.512	ppbV	99
21) trichlorofluoromethane	3.022	101	53217	5.387	ppbV	95
22) isopropyl alcohol	3.043	45	166035	14.166	ppbV	98
23) acrylonitrile	3.151	53	33005	5.427	ppbV	98
24) pentane	3.184	43	91523	5.206	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204219.D  
 Acq On : 14 Dec 2022 10:00 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:38:43 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	3.190	31	53107	5.653	ppbV	92
26) 1,1-dichloroethene	3.315	61	102554	5.262	ppbV	93
27) tertiary butyl alcohol	3.330	59	156377	5.342	ppbV #	95
28) methylene chloride	3.370	49	95174	5.421	ppbV #	79
29) 3-chloropropene	3.425	41	129392	5.492	ppbV #	91
30) carbon disulfide	3.510	76	312185	5.580	ppbV #	90
31) Freon 113	3.495	101	169841	5.545	ppbV	98
32) trans-1,2-dichloroethene	3.817	61	135960	5.558	ppbV	96
33) 1,1-dichloroethane	3.910	63	160131	5.524	ppbV	98
34) MTBE	3.937	73	251352	5.505	ppbV #	93
35) vinyl acetate	3.977	43	157953	5.238	ppbV #	90
36) 2-butanone	4.090	43	199659	5.930	ppbV #	88
37) cis-1,2-dichloroethene	4.307	61	117150	5.504	ppbV	94
38) Ethyl Acetate	4.407	61	34675	5.605	ppbV	59
39) chloroform	4.447	83	151702	5.517	ppbV #	96
40) Tetrahydrofuran	4.633	42	128601	5.553	ppbV #	86
41) 2,2-dichloropropane	4.460	77	108182	5.320	ppbV	97
42) 1,2-dichloroethane	4.800	62	70954	5.335	ppbV #	91
44) hexane	4.413	57	179033	5.573	ppbV #	65
45) diisopropyl ether	4.407	87	109760	5.691	ppbV #	64
46) tert-butyl ethyl ether	4.660	59	296898	5.524	ppbV	96
48) 1,1,1-trichloroethane	4.920	97	131328	5.434	ppbV #	97
49) 1,1-dichloropropene	5.073	75	141246	5.506	ppbV	90
50) benzene	5.140	78	361391	5.610	ppbV	96
51) thiophene	5.207	84	222596	5.654	ppbV #	92
52) carbon tetrachloride	5.213	117	92950	5.420	ppbV	98
53) cyclohexane	5.273	56	196668M6	5.475	ppbV	
54) tert-amyl methyl ether	5.420	73	305076	5.563	ppbV	93
55) dibromomethane	5.513	93	92034	5.759	ppbV	93
56) 1,2-dichloropropane	5.527	63	110348	5.586	ppbV #	96
57) bromodichloromethane	5.620	83	152431M6	5.574	ppbV	
58) 1,4-dioxane	5.633	88	88367	5.918	ppbV	100
59) trichloroethene	5.640	130	128743	5.677	ppbV	97
60) 2,2,4-trimethylpentane	5.660	57	577400	5.652	ppbV #	90
61) methyl methacrylate	5.727	41	107515	5.492	ppbV #	83
62) heptane	5.780	43	195613	5.602	ppbV #	84
63) cis-1,3-dichloropropene	6.033	75	155689	5.505	ppbV #	87
64) 4-methyl-2-pentanone	6.047	43	230579	5.647	ppbV #	84
65) trans-1,3-dichloropropene	6.273	75	135350	5.521	ppbV	93
66) 1,1,2-trichloroethane	6.353	97	128398	5.727	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204219.D  
 Acq On : 14 Dec 2022 10:00 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:38:43 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	413031	5.593	ppbV	99
70) 2-methylthiophene	6.513	97	337118M6	5.462	ppbV	
71) 1,3-dichloropropane	6.493	76	183318	5.478	ppbV #	85
72) 2-hexanone	6.593	43	208283	5.580	ppbV #	79
73) 3-methylthiophene	6.593	97	343774	5.691	ppbV #	98
74) dibromochloromethane	6.673	129	134563	5.603	ppbV	100
75) 1,2-dibromoethane	6.787	107	180342	5.508	ppbV	97
76) butyl acetate	6.880	73	53839	5.187	ppbV	71
77) octane	6.927	85	175625	5.549	ppbV #	74
78) tetrachloroethene	7.000	166	147738	5.744	ppbV	96
79) 1,1,1,2-tetrachloroethane	7.297	131	98165	5.471	ppbV	98
80) chlorobenzene	7.310	112	334908	5.633	ppbV	100
81) ethylbenzene	7.477	91	493319	5.541	ppbV	98
82) 2-ethylthiophene	7.497	97	374528	5.649	ppbV #	92
83) m+p-xylene	7.563	91	779890M6	11.698	ppbV	
84) bromoform	7.603	173	109689	5.569	ppbV	98
85) styrene	7.730	104	343236	5.627	ppbV	99
86) 1,1,2,2-tetrachloroethane	7.777	83	276496	5.902	ppbV	100
87) o-xylene	7.783	91	385656	5.991	ppbV	97
88) 1,2,3-trichloropropane	7.837	75	209534	5.875	ppbV	98
89) nonane	7.877	43	275150	5.884	ppbV #	75
91) isopropylbenzene	8.057	105	545658	5.903	ppbV	96
92) bromobenzene	8.110	77	292221	6.007	ppbV	97
93) 2-chlorotoluene	8.297	126	157545	5.725	ppbV	77
94) n-propylbenzene	8.310	120	187370	5.701	ppbV	86
95) 4-chlorotoluene	8.330	126	142879	5.760	ppbV	94
96) 4-ethyl toluene	8.383	105	576642	6.108	ppbV	98
97) 1,3,5-trimethylbenzene	8.423	105	469285	6.231	ppbV	95
98) tert-butylbenzene	8.637	119	478834	6.338	ppbV	98
99) 1,2,4-trimethylbenzene	8.637	105	436559	6.374	ppbV #	89
100) decane	8.683	57	367258	6.087	ppbV #	77
101) Benzyl Chloride	8.710	91	235308	5.773	ppbV	96
102) 1,3-dichlorobenzene	8.723	146	251192	6.348	ppbV	97
103) 1,4-dichlorobenzene	8.757	146	250698	6.379	ppbV	97
104) sec-butylbenzene	8.777	105	636455	6.311	ppbV	99
105) 1,2,3-trimethylbenzene	8.863	105	359778	6.357	ppbV	95
106) p-isopropyltoluene	8.857	119	532316M6	6.408	ppbV	
107) 1,2-dichlorobenzene	8.937	146	224567	6.395	ppbV	98
108) n-butylbenzene	9.077	91	455166	6.157	ppbV	98
109) indan	8.970	117	445356	6.175	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204219.D  
 Acq On : 14 Dec 2022 10:00 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD5.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:38:43 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

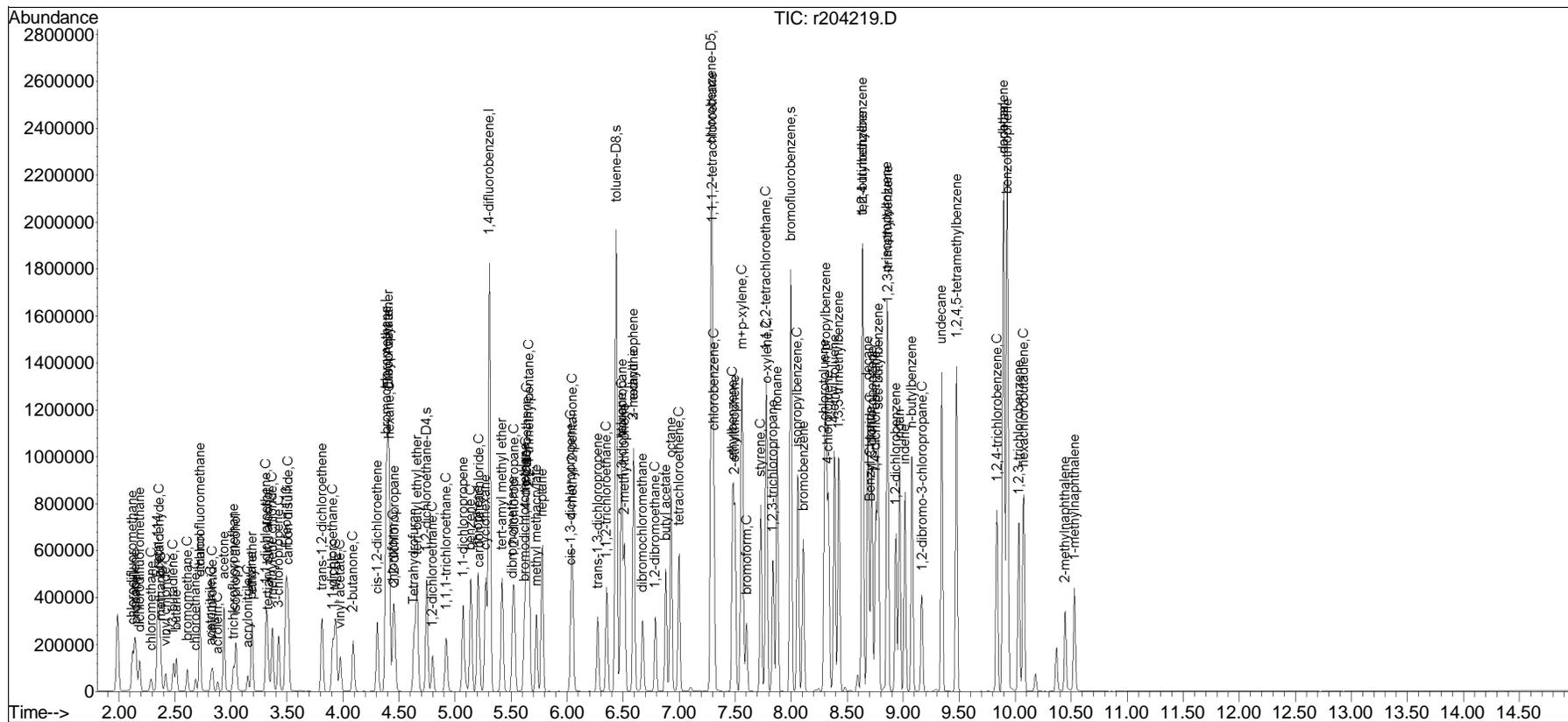
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	9.017	115	348483	6.112	ppbV	98
111) 1,2-dibromo-3-chloropr...	9.170	75	81014	6.091	ppbV	93
112) undecane	9.343	57	395361	6.093	ppbV #	83
113) 1,2,4,5-tetramethylben...	9.477	119	630098	6.316	ppbV	98
114) dodecane	9.898	57	417638	6.239	ppbV #	81
115) 1,2,4-trichlorobenzene	9.838	180	214744	6.406	ppbV	96
116) naphthalene	9.898	128	570686	6.259	ppbV	99
117) 1,2,3-trichlorobenzene	10.033	180	200260	6.097	ppbV	99
118) benzothiophene	9.928	134	1393034	6.373	ppbV	99
119) hexachlorobutadiene	10.078	225	162739	6.123	ppbV	96
120) 2-methylnaphthalene	10.445	142	140355	5.780	ppbV	97
121) 1-methylnaphthalene	10.528	142	173171	5.822	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204219.D  
Acq On : 14 Dec 2022 10:00 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD5.0  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

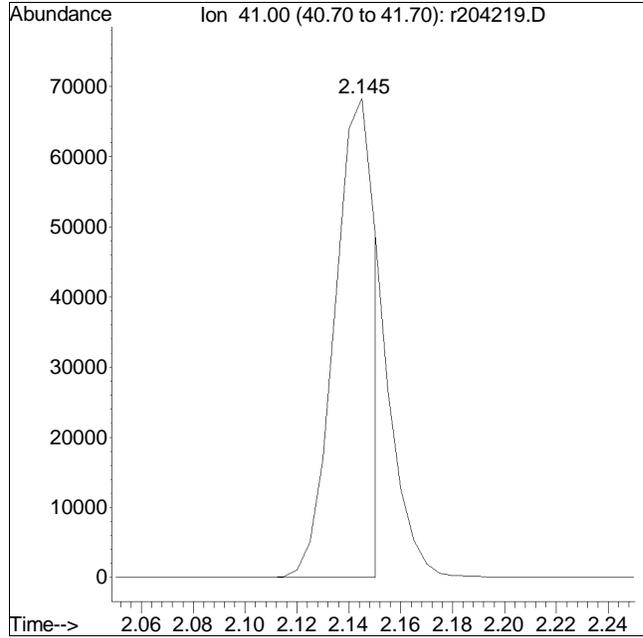
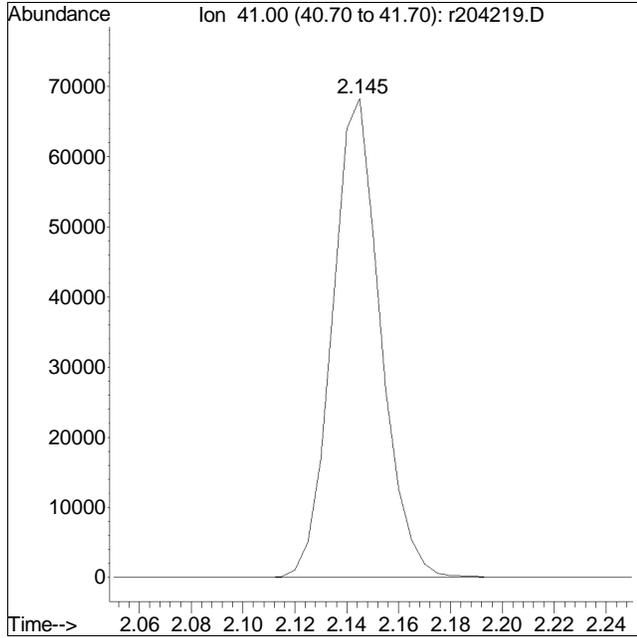
Quant Time: Dec 14 15:38:43 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : ITO15-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 87888

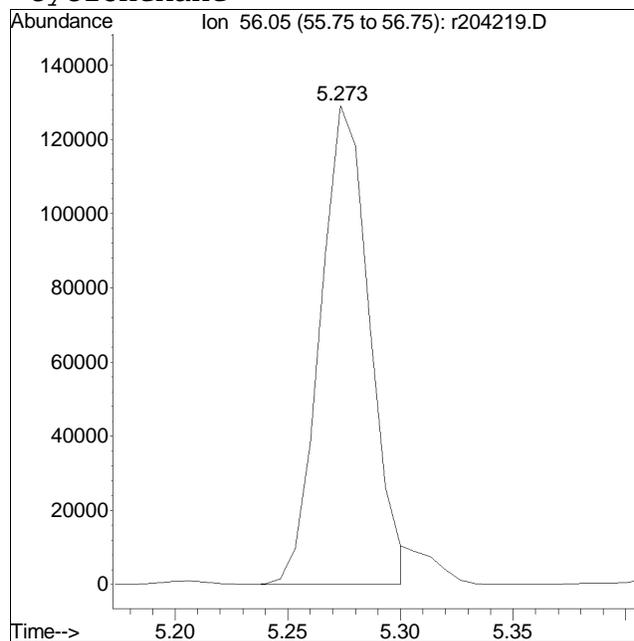
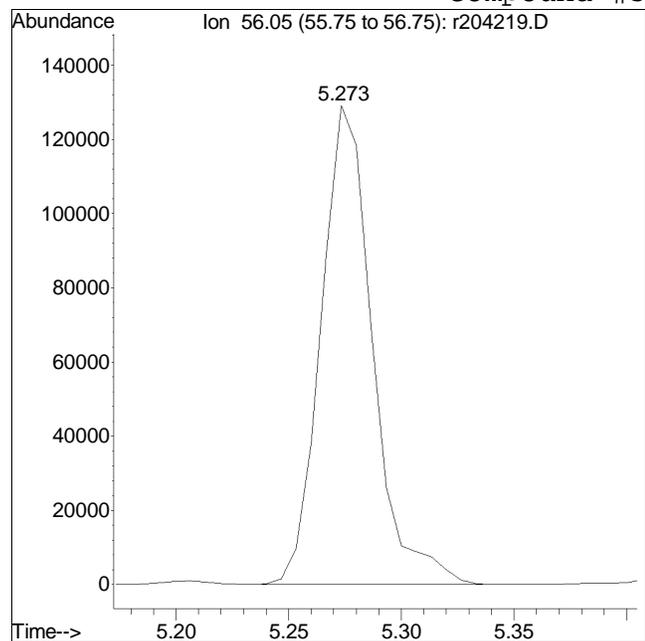
Manual Peak Response = 73497 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : IT015-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

## Compound #53: cyclohexane



Original Peak Response = 205416

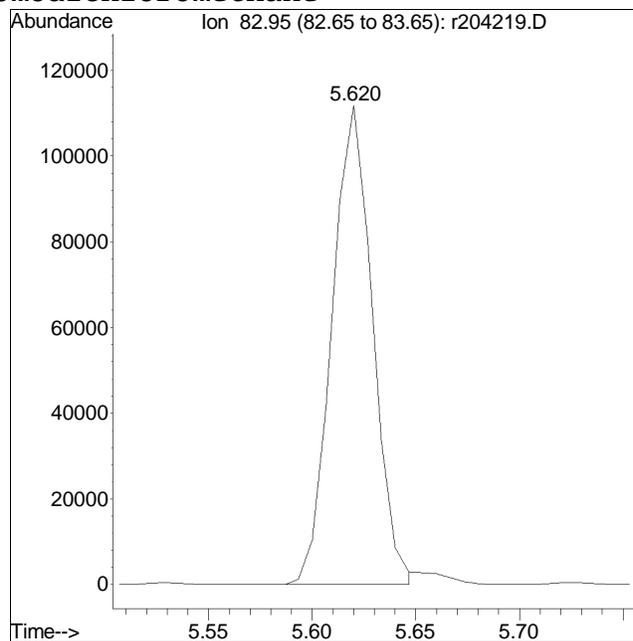
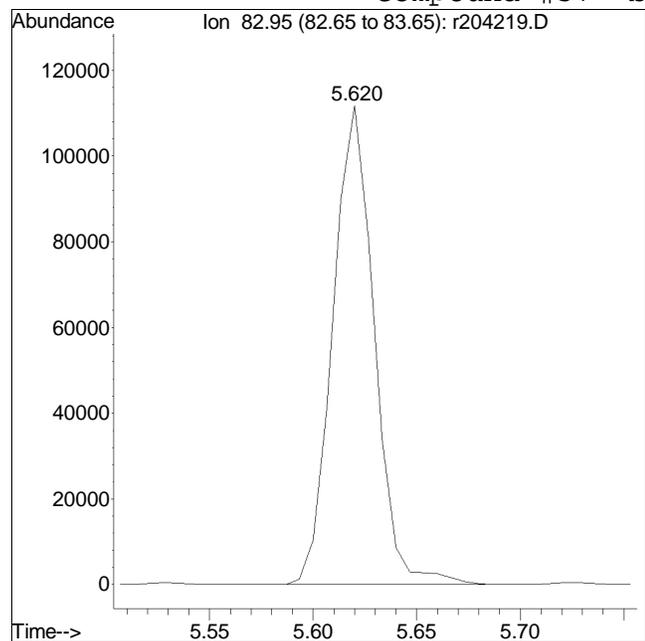
Manual Peak Response = 196668 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : IT015-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

## Compound #57: bromodichloromethane



Original Peak Response = 155605

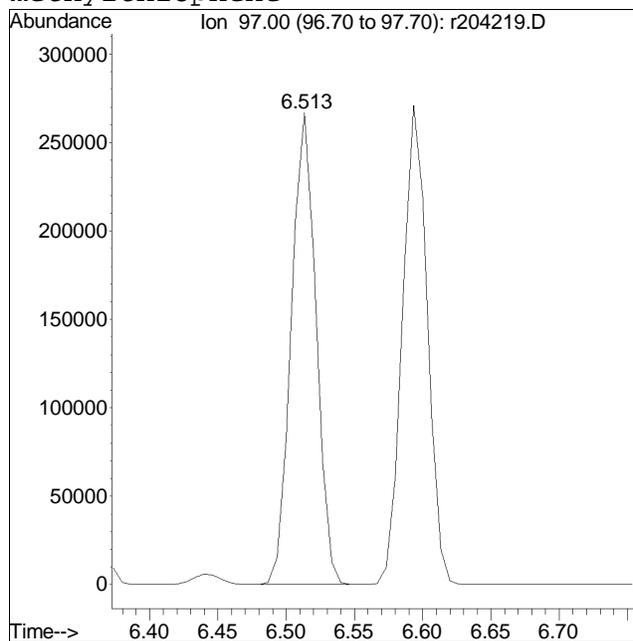
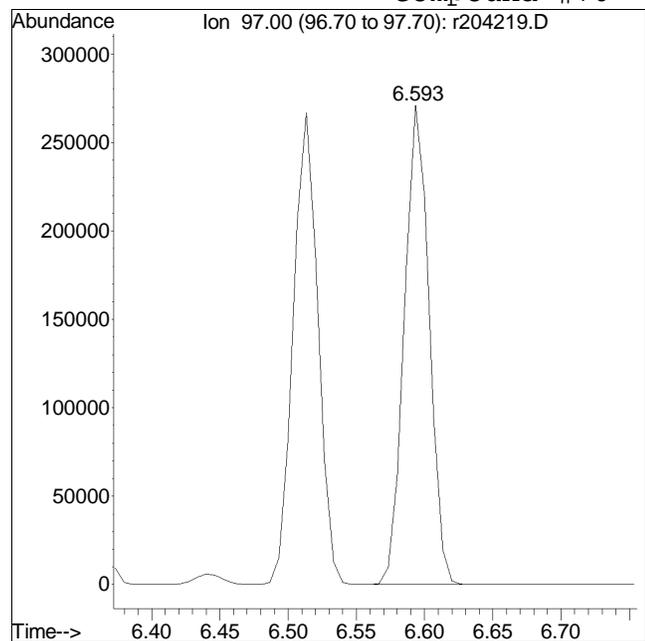
Manual Peak Response = 152431 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : ITO15-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

Compound #70: 2-methylthiophene



Original Peak Response = 343774

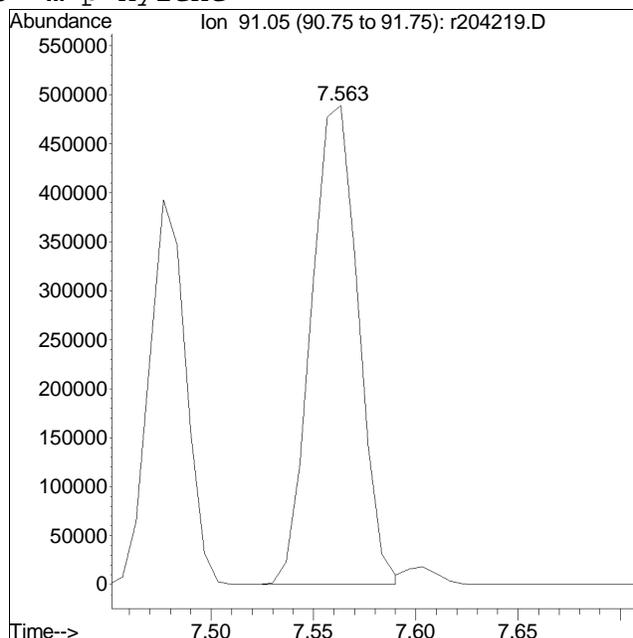
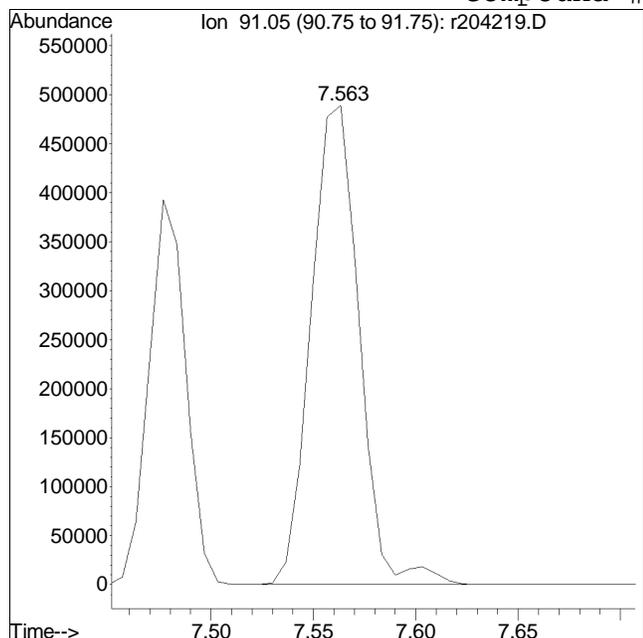
Manual Peak Response = 337118 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : IT015-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

## Compound #83: m+p-xylene



Original Peak Response = 799922

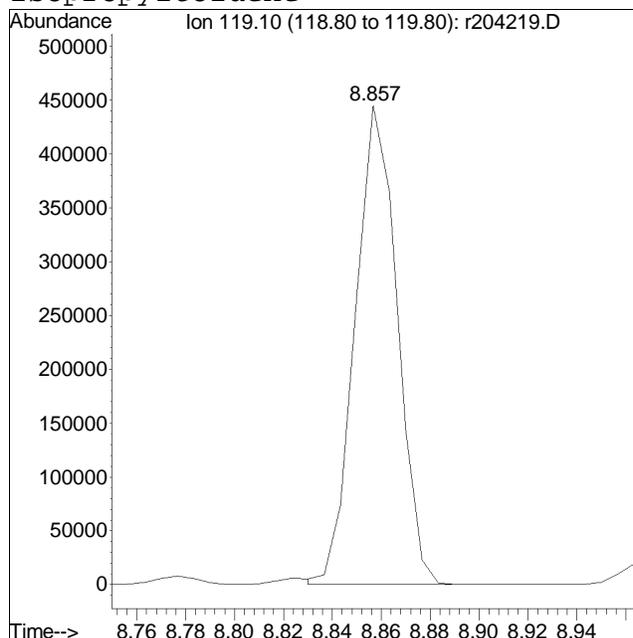
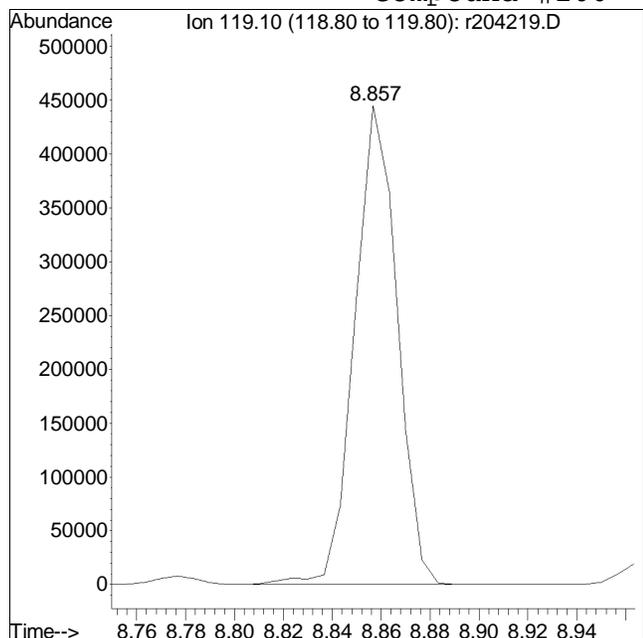
Manual Peak Response = 779890 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204219.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 0 Instrument :  
Sample : IT015-LLSTD5.0 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 538549

Manual Peak Response = 532316 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204220.D  
 Acq On : 14 Dec 2022 10:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD010  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 12:12:07 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 07 09:45:49 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.387	49	354966	10.000	ppbV	0.01
Standard Area = 354966			Recovery = 100.00%			
43) 1,4-difluorobenzene	5.307	114	1399790	10.000	ppbV	0.01
Standard Area = 1399790			Recovery = 100.00%			
67) chlorobenzene-D5	7.290	54	133534	10.000	ppbV	0.01
Standard Area = 133534			Recovery = 100.00%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.747	65	193936	7.632	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 76.32%			
69) toluene-D8	6.440	98	1162431	10.625	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.25%			
90) bromofluorobenzene	7.997	95	664092	9.741	ppbV	0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.41%			
<b>Target Compounds</b>						
2) chlorodifluoromethane	2.125	51	297516	11.564	ppbV #	92
3) propylene	2.145	41	130143M6	8.437	ppbV	
4) propane	2.160	29	94168	7.766	ppbV	98
5) dichlorodifluoromethane	2.185	85	175986	7.175	ppbV	100
6) chloromethane	2.290	50	90527	8.000	ppbV	96
7) Freon-114	2.350	85	291324	9.105	ppbV	92
8) methanol	2.375	31	186482	37.420	ppbV #	83
9) vinyl chloride	2.420	62	117242	7.985	ppbV	96
10) 1,3-butadiene	2.490	54	86010	7.932	ppbV	99
11) butane	2.515	43	146676	6.362	ppbV #	94
12) acetaldehyde	2.360	29	217872	33.385	ppbV	100
13) bromomethane	2.610	94	83577	8.198	ppbV	94
14) chloroethane	2.685	64	46470	7.507	ppbV	97
15) ethanol	2.725	31	194536	31.035	ppbV	93
16) dichlorofluoromethane	2.725	67	160952	8.068	ppbV	98
17) vinyl bromide	2.836	106	80578	7.211	ppbV	98
18) acrolein	2.881	56	35187	6.855	ppbV	96
19) acetone	2.938	43	432343	38.073	ppbV	98
20) acetonitrile	2.821	41	74373	7.650	ppbV	99
21) trichlorofluoromethane	3.022	101	105026	7.038	ppbV	97
22) isopropyl alcohol	3.043	45	311556	16.185	ppbV #	97
23) acrylonitrile	3.151	53	64662	6.556	ppbV	98
24) pentane	3.187	43	186905	8.812	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204220.D  
 Acq On : 14 Dec 2022 10:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD010  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 12:12:07 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 07 09:45:49 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	3.190	31	99887	7.263	ppbV	92
26) 1,1-dichloroethene	3.315	61	207211	10.848	ppbV	93
27) tertiary butyl alcohol	3.325	59	311263	9.132	ppbV #	94
28) methylene chloride	3.370	49	186676	9.334	ppbV #	81
29) 3-chloropropene	3.425	41	250488	8.751	ppbV #	91
30) carbon disulfide	3.515	76	594903	10.956	ppbV #	91
31) Freon 113	3.495	101	325668	9.819	ppbV	97
32) trans-1,2-dichloroethene	3.817	61	260099	9.714	ppbV	95
33) 1,1-dichloroethane	3.910	63	308198	9.158	ppbV	99
34) MTBE	3.937	73	485488	9.413	ppbV #	93
35) vinyl acetate	3.977	43	320604	7.603	ppbV #	91
36) 2-butanone	4.090	43	357957	8.328	ppbV #	88
37) cis-1,2-dichloroethene	4.307	61	226308	9.627	ppbV	93
38) Ethyl Acetate	4.407	61	65773	9.732	ppbV	56
39) chloroform	4.447	83	292339	10.230	ppbV #	96
40) Tetrahydrofuran	4.633	42	246227	8.553	ppbV #	87
41) 2,2-dichloropropane	4.460	77	216192	8.455	ppbV	94
42) 1,2-dichloroethane	4.800	62	141419	7.878	ppbV #	92
44) hexane	4.413	57	342157	10.090	ppbV #	60
45) diisopropyl ether	4.407	87	205401	9.629	ppbV #	64
46) tert-butyl ethyl ether	4.660	59	572440	8.783	ppbV	96
48) 1,1,1-trichloroethane	4.927	97	257400	8.405	ppbV #	97
49) 1,1-dichloropropene	5.073	75	273240	9.035	ppbV	89
50) benzene	5.140	78	686051	9.642	ppbV	96
51) thiophene	5.207	84	419288	10.304	ppbV #	91
52) carbon tetrachloride	5.213	117	182653	7.130	ppbV	99
53) cyclohexane	5.273	56	382596	10.101	ppbV #	90
54) tert-amyl methyl ether	5.420	73	584101	8.754	ppbV	93
55) dibromomethane	5.520	93	170206	8.772	ppbV	95
56) 1,2-dichloropropane	5.533	63	210398	8.825	ppbV	97
57) bromodichloromethane	5.620	83	291252M6	8.816	ppbV	
58) 1,4-dioxane	5.633	88	159019	9.469	ppbV	99
59) trichloroethene	5.640	130	241518	9.225	ppbV	99
60) 2,2,4-trimethylpentane	5.660	57	1087996	10.012	ppbV #	90
61) methyl methacrylate	5.727	41	208506	7.321	ppbV #	84
62) heptane	5.780	43	371879	7.829	ppbV #	84
63) cis-1,3-dichloropropene	6.033	75	301183	9.311	ppbV #	87
64) 4-methyl-2-pentanone	6.047	43	434910	7.862	ppbV #	85
65) trans-1,3-dichloropropene	6.273	75	261090	8.621	ppbV	94
66) 1,1,2-trichloroethane	6.353	97	238795	9.187	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204220.D  
 Acq On : 14 Dec 2022 10:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD010  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 12:12:07 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 07 09:45:49 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	766203	9.976	ppbV	100
70) 2-methylthiophene	6.513	97	640342M3	10.478	ppbV	
71) 1,3-dichloropropane	6.493	76	347206	10.460	ppbV #	83
72) 2-hexanone	6.593	43	387226	8.381	ppbV #	80
73) 3-methylthiophene	6.593	97	626730	10.326	ppbV #	97
74) dibromochloromethane	6.673	129	249141	9.310	ppbV	99
75) 1,2-dibromoethane	6.787	107	339674	10.162	ppbV	100
76) butyl acetate	6.880	73	107689	9.391	ppbV	71
77) octane	6.927	85	328337	11.196	ppbV #	73
78) tetrachloroethene	7.000	166	266835	9.995	ppbV	97
79) 1,1,1,2-tetrachloroethane	7.303	131	186146	8.822	ppbV	98
80) chlorobenzene	7.310	112	616766	10.719	ppbV	99
81) ethylbenzene	7.483	91	923623	10.317	ppbV	98
82) 2-ethylthiophene	7.497	97	687813	10.029	ppbV #	91
83) m+p-xylene	7.563	91	1383283	19.636	ppbV	97
84) bromoform	7.603	173	204343	9.011	ppbV	98
85) styrene	7.730	104	632798	9.963	ppbV	99
86) 1,1,2,2-tetrachloroethane	7.777	83	486056	10.650	ppbV	100
87) o-xylene	7.783	91	667866	9.626	ppbV	99
88) 1,2,3-trichloropropane	7.837	75	370028	9.400	ppbV	97
89) nonane	7.877	43	485179	8.130	ppbV #	74
91) isopropylbenzene	8.063	105	958960	9.537	ppbV	97
92) bromobenzene	8.110	77	504677	9.770	ppbV	100
93) 2-chlorotoluene	8.297	126	285471	10.227	ppbV	92
94) n-propylbenzene	8.310	120	340976	10.274	ppbV	90
95) 4-chlorotoluene	8.337	126	257365	9.543	ppbV	95
96) 4-ethyl toluene	8.390	105	979432	9.029	ppbV	97
97) 1,3,5-trimethylbenzene	8.423	105	781386	8.923	ppbV	91
98) tert-butylbenzene	8.637	119	783787	8.758	ppbV	98
99) 1,2,4-trimethylbenzene	8.637	105	710566	8.461	ppbV #	86
100) decane	8.683	57	625963	9.857	ppbV #	79
101) Benzyl Chloride	8.710	91	422886	7.498	ppbV	98
102) 1,3-dichlorobenzene	8.723	146	410553	8.210	ppbV	97
103) 1,4-dichlorobenzene	8.757	146	407707	8.603	ppbV	99
104) sec-butylbenzene	8.777	105	1046178	8.202	ppbV	99
105) 1,2,3-trimethylbenzene	8.863	105	587155	7.796	ppbV	96
106) p-isopropyltoluene	8.857	119	861776M6	8.024	ppbV	
107) 1,2-dichlorobenzene	8.937	146	364340	7.933	ppbV	97
108) n-butylbenzene	9.077	91	766998	8.271	ppbV	98
109) indan	8.970	117	748235	8.668	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204220.D  
 Acq On : 14 Dec 2022 10:33 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD010  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 12:12:07 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 07 09:45:49 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

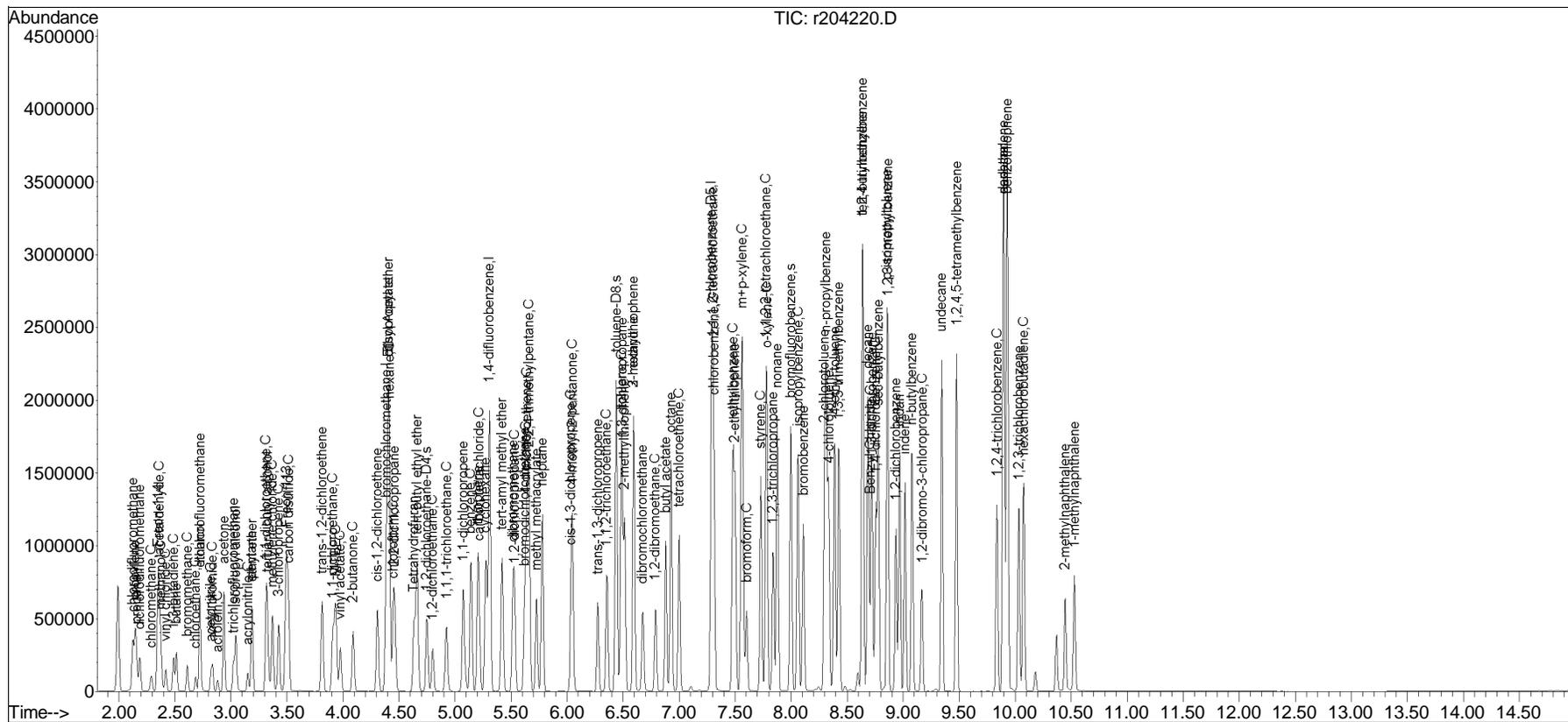
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	9.017	115	591550	8.509	ppbV	97
111) 1,2-dibromo-3-chloropr...	9.170	75	137984	6.639	ppbV	88
112) undecane	9.343	57	673176	9.459	ppbV #	83
113) 1,2,4,5-tetramethylben...	9.477	119	1035061	8.671	ppbV	99
114) dodecane	9.898	57	694510	9.821	ppbV	83
115) 1,2,4-trichlorobenzene	9.838	180	347764	8.050	ppbV	98
116) naphthalene	9.898	128	945935	8.804	ppbV	98
117) 1,2,3-trichlorobenzene	10.033	180	340786	8.240	ppbV	98
118) benzothiophene	9.928	134	2267571	8.799	ppbV	100
119) hexachlorobutadiene	10.078	225	275751	7.235	ppbV	96
120) 2-methylnaphthalene	10.445	142	251933	10.243	ppbV	99
121) 1-methylnaphthalene	10.528	142	308599	9.237	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204220.D  
Acq On : 14 Dec 2022 10:33 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD010  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

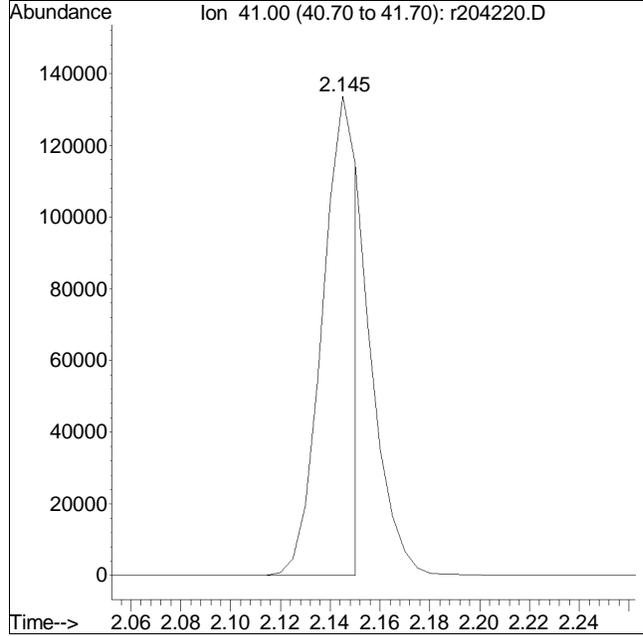
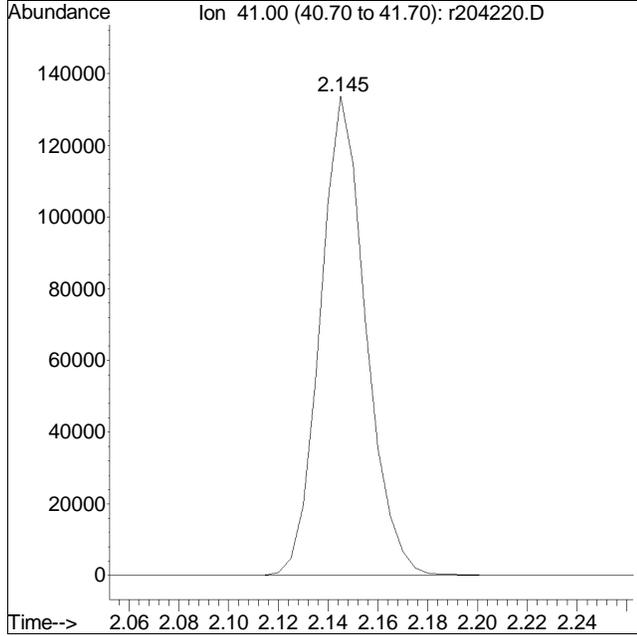
Quant Time: Dec 14 12:12:07 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 07 09:45:49 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204220.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 3 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 12/14/2022 12:09 pm

Compound #3: propylene



Original Peak Response = 170027

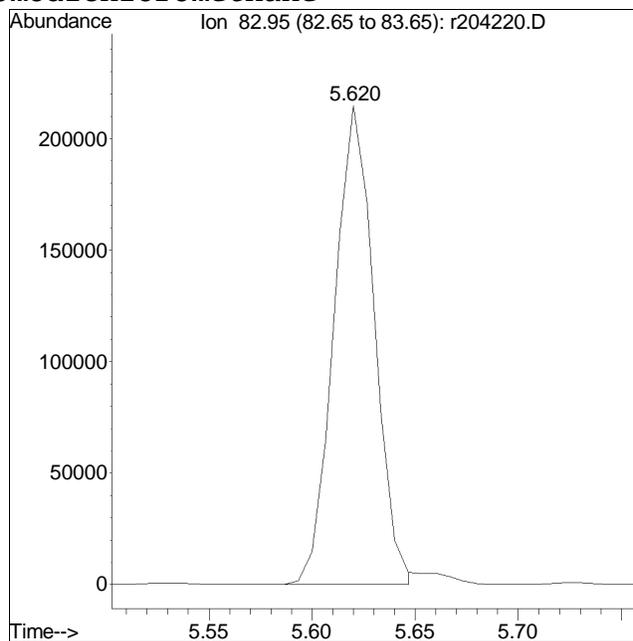
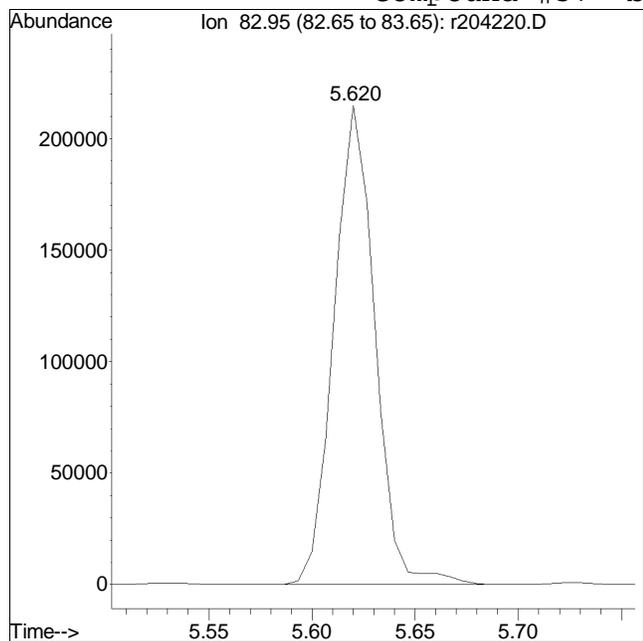
Manual Peak Response = 130143 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204220.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 3 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 12/14/2022 12:09 pm

Compound #57: bromodichloromethane



Original Peak Response = 297584

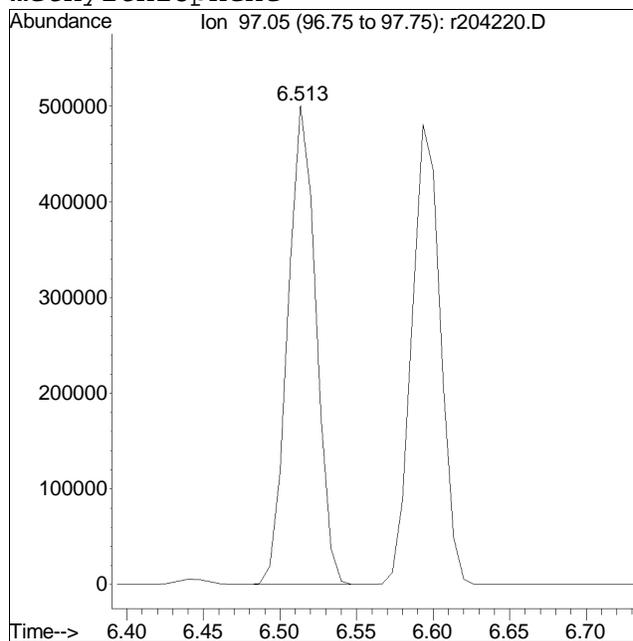
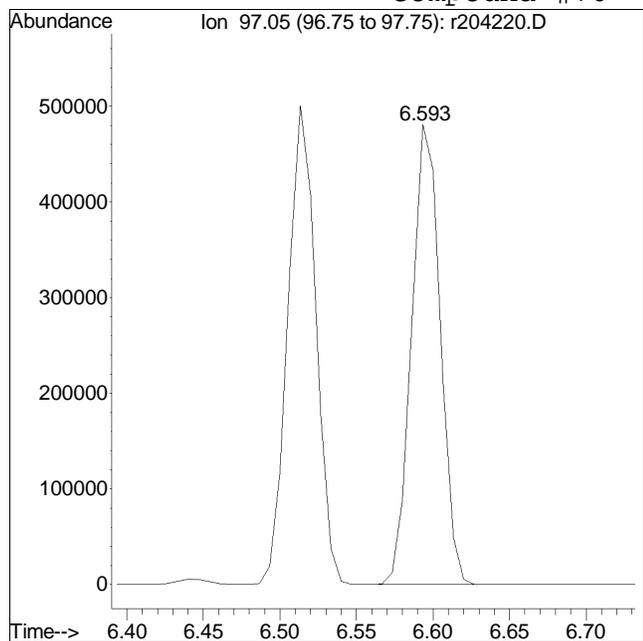
Manual Peak Response = 291252 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204220.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 3 Instrument :  
Sample : IT015-LLSTD010 Quant Date : 12/14/2022 12:09 pm

Compound #70: 2-methylthiophene



Original Peak Response = 626730

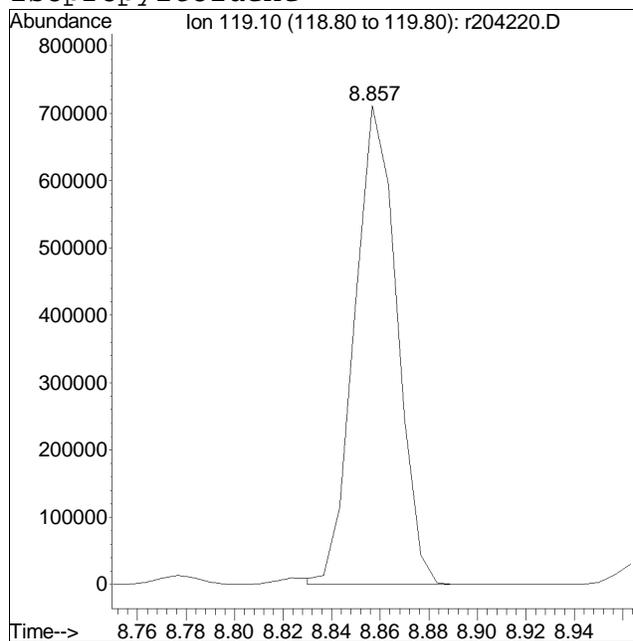
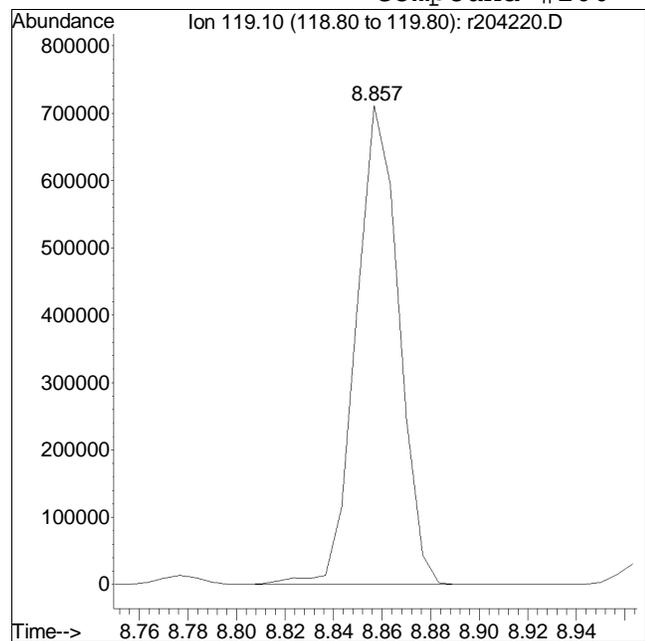
Manual Peak Response = 640342 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204220.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:0: 3 Instrument :  
Sample : ITO15-LLSTD010 Quant Date : 12/14/2022 12:09 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 871986

Manual Peak Response = 861776 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204215.D  
 Acq On : 14 Dec 2022 5:40 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD020  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:12:56 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.387	49	422375	10.000	ppbV	0.00
Standard Area = 354966			Recovery = 118.99%			
43) 1,4-difluorobenzene	5.307	114	1527306	10.000	ppbV	0.00
Standard Area = 1399790			Recovery = 109.11%			
67) chlorobenzene-D5	7.290	54	159255	10.000	ppbV	0.00
Standard Area = 133534			Recovery = 119.26%			
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.753	65	300807	14.216	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 142.16%#			
69) toluene-D8	6.440	98	1283358	9.257	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.57%			
90) bromofluorobenzene	7.997	95	712305	8.994	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.94%			
<b>Target Compounds</b>						
2) chlorodifluoromethane	2.120	51	647251	18.283	ppbV	100
3) propylene	2.140	41	368462	23.794	ppbV #	98
4) propane	2.155	29	205454	18.336	ppbV #	88
5) dichlorodifluoromethane	2.185	85	616271	29.429	ppbV	99
6) chloromethane	2.285	50	218364	20.272	ppbV	96
7) Freon-114	2.345	85	724244	20.893	ppbV	96
8) methanol	2.370	31	417193	94.007	ppbV #	87
9) vinyl chloride	2.415	62	302610	21.691	ppbV	98
10) 1,3-butadiene	2.485	54	225455	22.029	ppbV	90
11) butane	2.515	43	360992	20.684	ppbV #	94
12) acetaldehyde	2.360	29	483893	93.327	ppbV	97
13) bromomethane	2.610	94	217938	21.915	ppbV	97
14) chloroethane	2.685	64	112809	20.401	ppbV	96
15) ethanol	2.720	31	443505	95.798	ppbV	96
16) dichlorofluoromethane	2.725	67	399321	20.850	ppbV	98
17) vinyl bromide	2.836	106	213560	22.274	ppbV	97
18) acrolein	2.881	56	98832	23.605	ppbV #	92
19) acetone	2.935	43	1004687	97.647	ppbV	93
20) acetonitrile	2.821	41	177224	20.026	ppbV	99
21) trichlorofluoromethane	3.022	101	280245	22.425	ppbV	98
22) isopropyl alcohol	3.043	45	745362	50.264	ppbV #	96
23) acrylonitrile	3.148	53	171132	22.242	ppbV	97
24) pentane	3.184	43	432892	19.465	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204215.D  
 Acq On : 14 Dec 2022 5:40 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD020  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:12:56 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	3.190	31	242820	20.430	ppbV #	88
26) 1,1-dichloroethene	3.315	61	481402	19.525	ppbV	96
27) tertiary butyl alcohol	3.325	59	720062	19.442	ppbV	95
28) methylene chloride	3.370	49	455429	20.503	ppbV	93
29) 3-chloropropene	3.425	41	572240	19.199	ppbV #	92
30) carbon disulfide	3.515	76	1431460	20.222	ppbV	95
31) Freon 113	3.495	101	740450	19.108	ppbV	99
32) trans-1,2-dichloroethene	3.817	61	613212	19.813	ppbV	99
33) 1,1-dichloroethane	3.910	63	752983	20.533	ppbV	99
34) MTBE	3.937	73	1236648	21.407	ppbV	97
35) vinyl acetate	3.977	43	793314	20.795	ppbV	95
36) 2-butanone	4.090	43	914405	21.468	ppbV #	91
37) cis-1,2-dichloroethene	4.307	61	544272	20.212	ppbV	98
38) Ethyl Acetate	4.407	61	137306	17.544	ppbV	62
39) chloroform	4.447	83	721834	20.751	ppbV	96
40) Tetrahydrofuran	4.633	42	570124	19.459	ppbV #	87
41) 2,2-dichloropropane	4.467	77	572928	22.271	ppbV	99
42) 1,2-dichloroethane	4.800	62	451132	26.809	ppbV	99
44) hexane	4.413	57	712549	19.086	ppbV #	65
45) diisopropyl ether	4.407	87	449500	20.057	ppbV #	68
46) tert-butyl ethyl ether	4.660	59	1329957	21.293	ppbV	98
48) 1,1,1-trichloroethane	4.927	97	743244	26.464	ppbV	99
49) 1,1-dichloropropene	5.073	75	684048	22.945	ppbV	93
50) benzene	5.147	78	1489384	19.897	ppbV	100
51) thiophene	5.207	84	896090	19.587	ppbV	95
52) carbon tetrachloride	5.213	117	515594	25.871	ppbV	99
53) cyclohexane	5.280	56	830406	19.892	ppbV	94
54) tert-amyl methyl ether	5.420	73	1376014	21.591	ppbV	94
55) dibromomethane	5.520	93	389832	20.991	ppbV	97
56) 1,2-dichloropropane	5.533	63	468262	20.398	ppbV	98
57) bromodichloromethane	5.620	83	729485M6	22.955	ppbV	
58) 1,4-dioxane	5.633	88	352342	20.307	ppbV	99
59) trichloroethene	5.640	130	536310	20.352	ppbV	99
60) 2,2,4-trimethylpentane	5.660	57	2330556	19.632	ppbV	93
61) methyl methacrylate	5.727	41	521845	22.938	ppbV	87
62) heptane	5.780	43	861056	21.221	ppbV #	87
63) cis-1,3-dichloropropene	6.040	75	703582	21.410	ppbV	93
64) 4-methyl-2-pentanone	6.047	43	989532	20.853	ppbV #	88
65) trans-1,3-dichloropropene	6.273	75	673841	23.654	ppbV	94
66) 1,1,2-trichloroethane	6.353	97	548544	21.053	ppbV	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204215.D  
 Acq On : 14 Dec 2022 5:40 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD020  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:12:56 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	1668610	18.260	ppbV	98
70) 2-methylthiophene	6.513	97	1380226	18.073	ppbV	98
71) 1,3-dichloropropane	6.493	76	793237	19.156	ppbV #	84
72) 2-hexanone	6.593	43	834358	18.067	ppbV #	84
73) 3-methylthiophene	6.593	97	1328659	17.776	ppbV #	99
74) dibromochloromethane	6.680	129	592522	19.942	ppbV	99
75) 1,2-dibromoethane	6.793	107	781586	19.294	ppbV	99
76) butyl acetate	6.880	73	254714	19.833	ppbV	74
77) octane	6.927	85	721548	18.427	ppbV #	74
78) tetrachloroethene	7.000	166	601508	18.902	ppbV	96
79) 1,1,1,2-tetrachloroethane	7.303	131	435322	19.609	ppbV	98
80) chlorobenzene	7.310	112	1287459	17.503	ppbV	98
81) ethylbenzene	7.483	91	2029265	18.422	ppbV	98
82) 2-ethylthiophene	7.497	97	1511612	18.428	ppbV	94
83) m+p-xylene	7.563	91	2922093M6	35.425	ppbV	
84) bromoform	7.603	173	463357	19.013	ppbV	99
85) styrene	7.730	104	1397699	18.520	ppbV	99
86) 1,1,2,2-tetrachloroethane	7.777	83	1003448	17.310	ppbV	100
87) o-xylene	7.783	91	1375265	17.266	ppbV	100
88) 1,2,3-trichloropropane	7.837	75	845039	19.149	ppbV	97
89) nonane	7.877	43	1048362	18.118	ppbV #	76
91) isopropylbenzene	8.063	105	2030955	17.758	ppbV	94
92) bromobenzene	8.110	77	1095319	18.198	ppbV	99
93) 2-chlorotoluene	8.297	126	589676	17.320	ppbV	91
94) n-propylbenzene	8.310	120	716831	17.628	ppbV	96
95) 4-chlorotoluene	8.337	126	558296	18.189	ppbV	89
96) 4-ethyl toluene	8.390	105	2150738	18.412	ppbV	97
97) 1,3,5-trimethylbenzene	8.423	105	1634107	17.535	ppbV	92
98) tert-butylbenzene	8.637	119	1574240	16.841	ppbV	100
99) 1,2,4-trimethylbenzene	8.637	105	1430428	16.880	ppbV #	84
100) decane	8.683	57	1346447	18.036	ppbV #	78
101) Benzyl Chloride	8.710	91	1003299	19.893	ppbV	99
102) 1,3-dichlorobenzene	8.723	146	870150	17.771	ppbV	94
103) 1,4-dichlorobenzene	8.757	146	905683	18.626	ppbV	96
104) sec-butylbenzene	8.777	105	2326414	18.646	ppbV	100
105) 1,2,3-trimethylbenzene	8.863	105	1268643	18.117	ppbV	97
106) p-isopropyltoluene	8.857	119	1814146M6	17.651	ppbV	
107) 1,2-dichlorobenzene	8.937	146	852702	19.624	ppbV	97
108) n-butylbenzene	9.077	91	1730241	18.915	ppbV	98
109) indan	8.970	117	1669913	18.713	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204215.D  
 Acq On : 14 Dec 2022 5:40 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD020  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:12:56 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

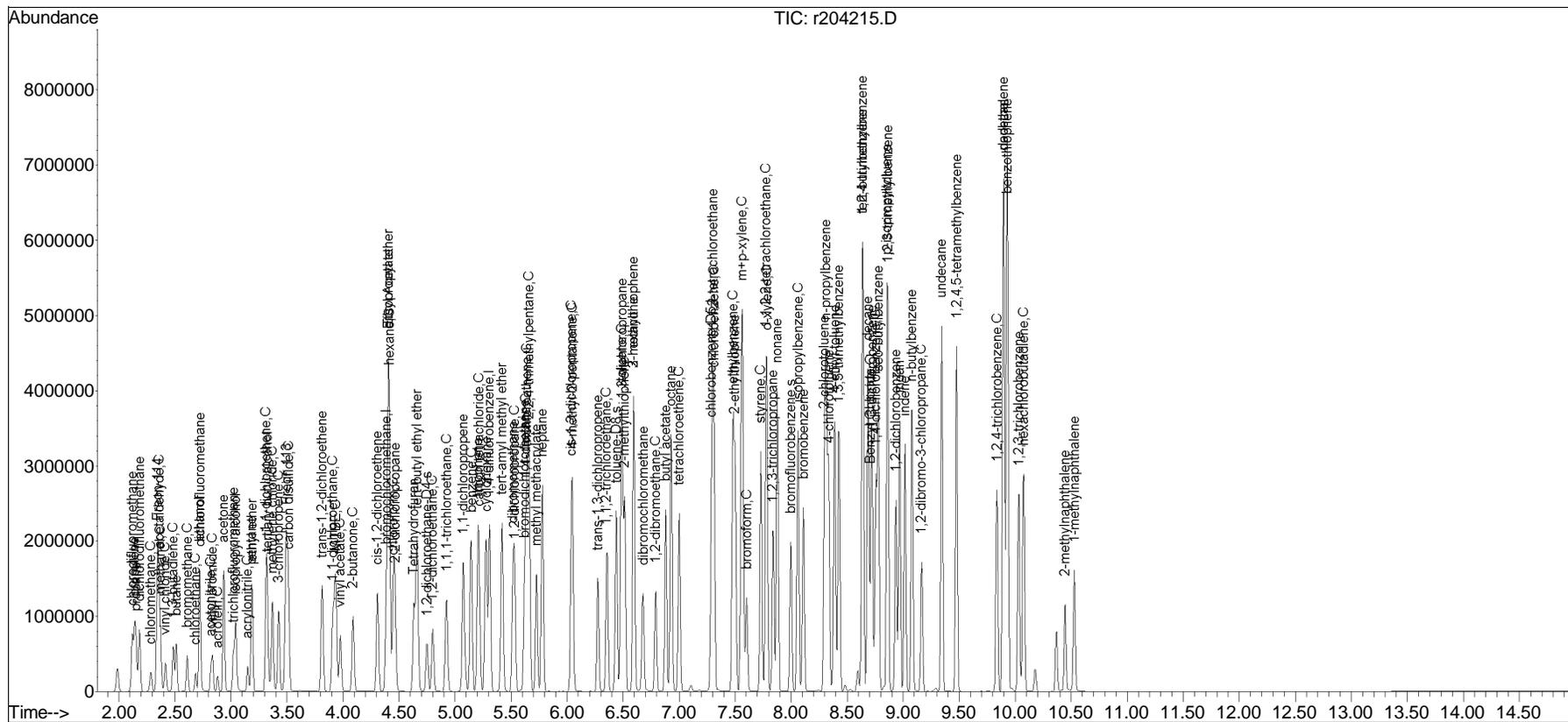
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	9.017	115	1377827	19.530	ppbV	99
111) 1,2-dibromo-3-chloropr...	9.163	75	344798	20.952	ppbV	88
112) undecane	9.343	57	1453500	18.104	ppbV #	83
113) 1,2,4,5-tetramethylben...	9.477	119	2087620	16.912	ppbV	98
114) dodecane	9.898	57	1332047	16.082	ppbV	83
115) 1,2,4-trichlorobenzene	9.838	180	735188	17.726	ppbV	96
116) naphthalene	9.898	128	1884933	16.708	ppbV	99
117) 1,2,3-trichlorobenzene	10.033	180	735812	18.104	ppbV	97
118) benzothiophene	9.928	134	4547487	16.815	ppbV	100
119) hexachlorobutadiene	10.078	225	573335	17.434	ppbV	96
120) 2-methylnaphthalene	10.445	142	462728	15.401	ppbV	97
121) 1-methylnaphthalene	10.528	142	629260	17.098	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204215.D  
Acq On : 14 Dec 2022 5:40 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD020  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

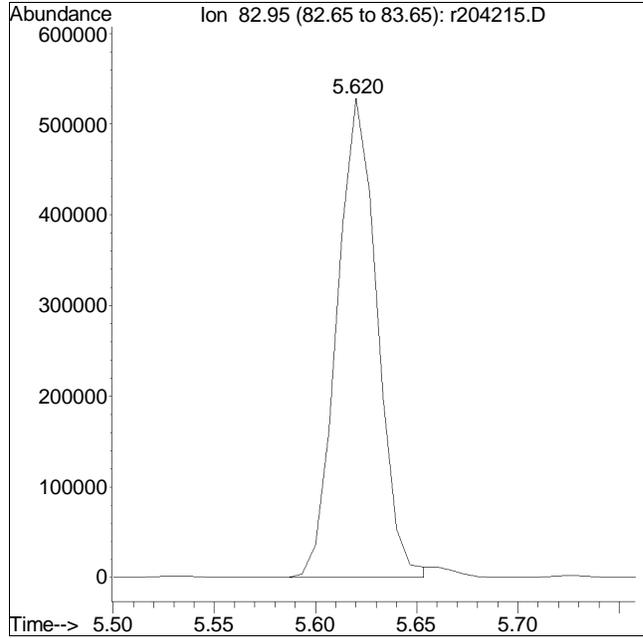
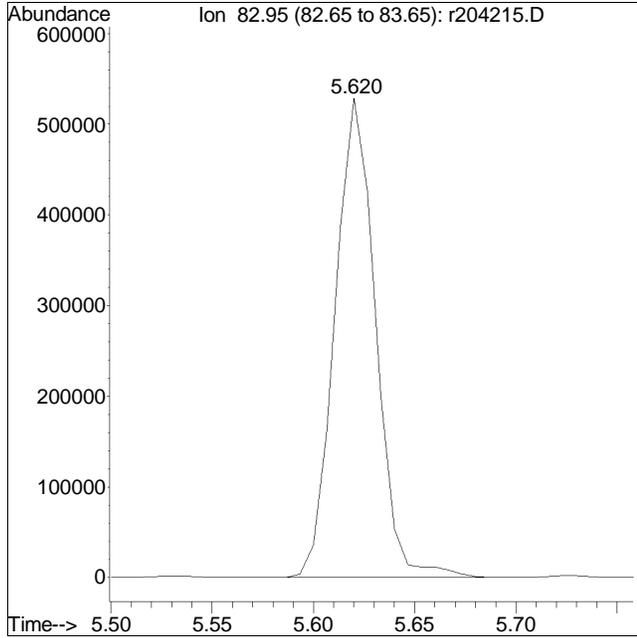
Quant Time: Dec 14 15:12:56 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204215.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:5: 0 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 12/14/2022 12:14 pm

Compound #57: bromodichloromethane



Original Peak Response = 739687

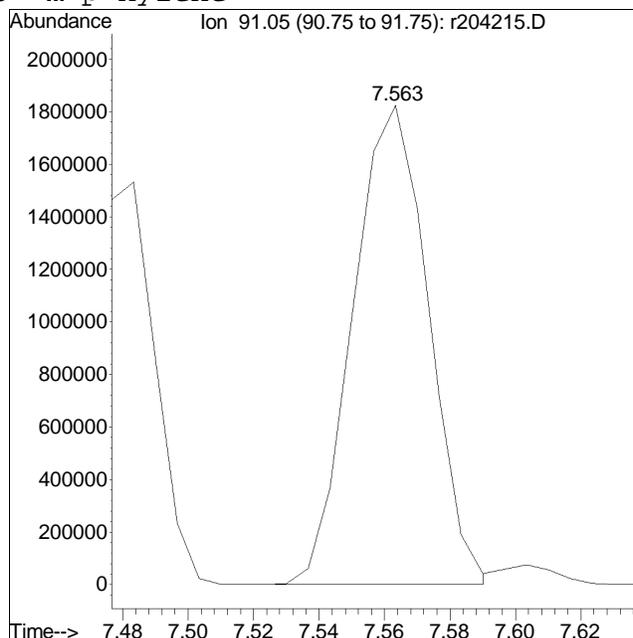
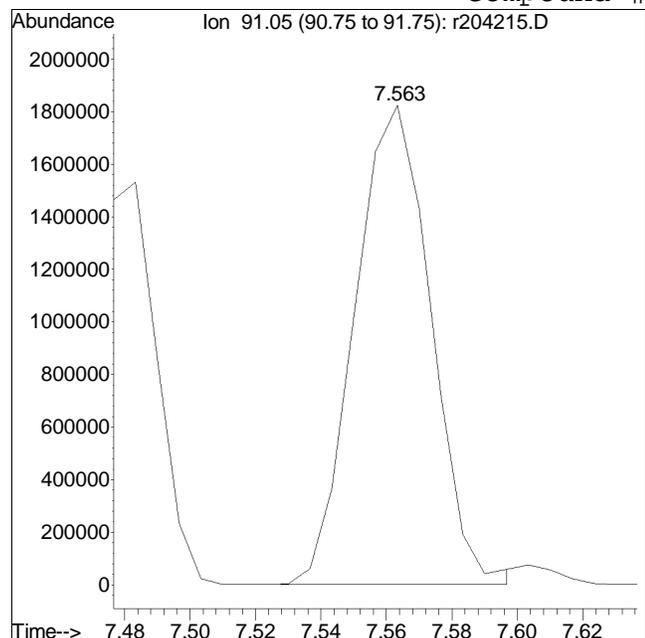
Manual Peak Response = 729485 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204215.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:5: 0 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 12/14/2022 12:14 pm

Compound #83: m+p-xylene



Original Peak Response = 2943358

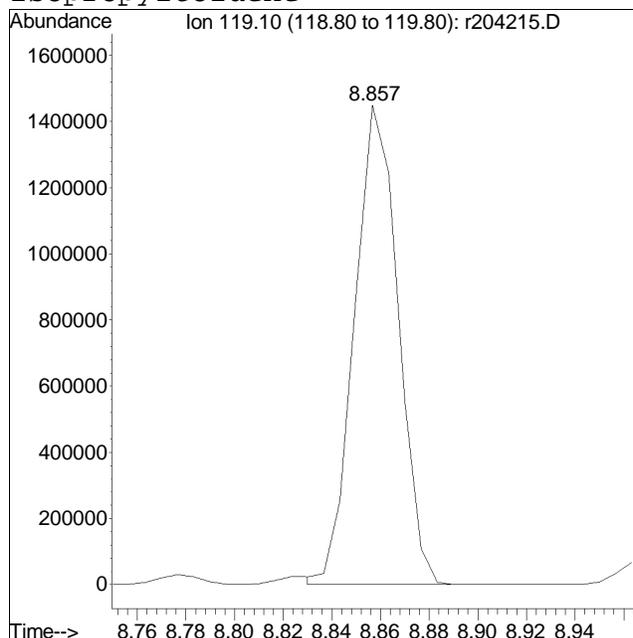
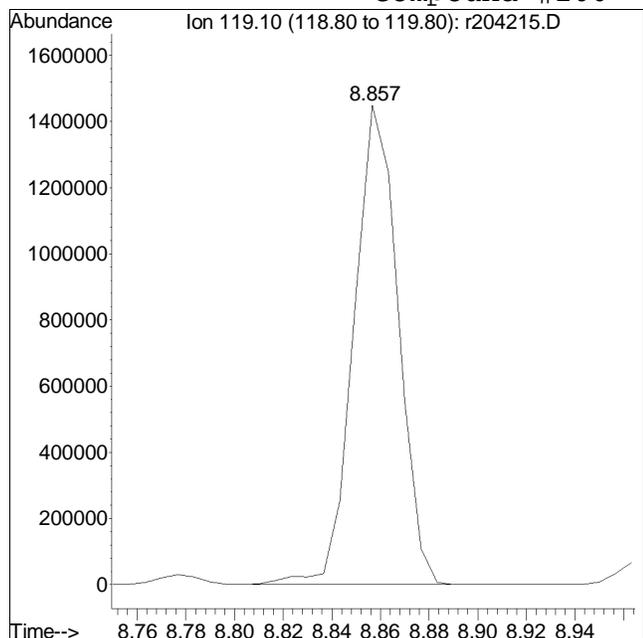
Manual Peak Response = 2922093 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204215.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:5: 0 Instrument :  
Sample : ITO15-LLSTD020 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 1838490

Manual Peak Response = 1814146 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204216.D  
 Acq On : 14 Dec 2022 6:11 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD050  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:22:35 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) bromochloromethane	4.387	49	397642	10.000	ppbV	0.00	
Standard Area = 354966			Recovery = 112.02%				
43) 1,4-difluorobenzene	5.313	114	1531225	10.000	ppbV	0.00	
Standard Area = 1399790			Recovery = 109.39%				
67) chlorobenzene-D5	7.290	54	122849	10.000	ppbV	# 0.00	
Standard Area = 133534			Recovery = 92.00%				
<b>System Monitoring Compounds</b>							
47) 1,2-dichloroethane-D4	4.753	65	231070	10.892	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 108.92%				
69) toluene-D8	6.440	98	1221288	11.420	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 114.20%				
90) bromofluorobenzene	7.997	95	659193	10.790	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.90%				
<b>Target Compounds</b>							
2) chlorodifluoromethane	2.120	51	1533909	46.024	ppbV #	90	
3) propylene	2.140	41	752776M6	51.634	ppbV		
4) propane	2.155	29	492226	46.661	ppbV	95	
5) dichlorodifluoromethane	2.185	85	988748	50.154	ppbV	100	
6) chloromethane	2.285	50	510816	50.371	ppbV	96	
7) Freon-114	2.345	85	1383849	42.404	ppbV	93	
8) methanol	2.370	31	949860	227.346	ppbV #	87	
9) vinyl chloride	2.415	62	655394	49.902	ppbV	98	
10) 1,3-butadiene	2.485	54	487925	50.641	ppbV	94	
11) butane	2.515	43	807898	49.169	ppbV #	95	
12) acetaldehyde	2.360	29	1101807	225.719	ppbV	87	
13) bromomethane	2.610	94	465094	49.676	ppbV	97	
14) chloroethane	2.685	64	269895	51.846	ppbV	96	
15) ethanol	2.725	31	1107747	254.159	ppbV	90	
16) dichlorofluoromethane	2.725	67	826242	45.825	ppbV	98	
17) vinyl bromide	2.839	106	455058	50.413	ppbV	97	
18) acrolein	2.881	56	233236	59.171	ppbV	95	
19) acetone	2.938	43	2299631	237.407	ppbV	98	
20) acetonitrile	2.821	41	430093	51.623	ppbV	99	
21) trichlorofluoromethane	3.025	101	612966	52.100	ppbV	98	
22) isopropyl alcohol	3.043	45	1731079	123.998	ppbV #	97	
23) acrylonitrile	3.151	53	409935	56.593	ppbV	97	
24) pentane	3.187	43	1044891	49.905	ppbV	97	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204216.D  
 Acq On : 14 Dec 2022 6:11 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD050  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:22:35 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
25) ethyl ether	3.190	31	594522	53.132	ppbV	#	91
26) 1,1-dichloroethene	3.320	61	980275	42.231	ppbV		93
27) tertiary butyl alcohol	3.325	59	1649989	47.320	ppbV	#	94
28) methylene chloride	3.370	49	1063556	50.859	ppbV		84
29) 3-chloropropene	3.430	41	1418892	50.566	ppbV	#	93
30) carbon disulfide	3.515	76	3256464	48.865	ppbV	#	92
31) Freon 113	3.495	101	1618134	44.354	ppbV		97
32) trans-1,2-dichloroethene	3.817	61	1419912	48.732	ppbV		95
33) 1,1-dichloroethane	3.910	63	1757715	50.911	ppbV		99
34) MTBE	3.937	73	2759958	50.748	ppbV		94
35) vinyl acetate	3.977	43	2025334	56.393	ppbV	#	91
36) 2-butanone	4.090	43	1989102	49.604	ppbV	#	87
37) cis-1,2-dichloroethene	4.307	61	1230664	48.544	ppbV		92
38) Ethyl Acetate	4.407	61	305736	41.495	ppbV	#	37
39) chloroform	4.453	83	1366338	41.722	ppbV		97
40) Tetrahydrofuran	4.633	42	1336676	48.460	ppbV	#	85
41) 2,2-dichloropropane	4.467	77	1087817	44.917	ppbV		95
42) 1,2-dichloroethane	4.800	62	842436	53.177	ppbV	#	92
44) hexane	4.413	57	1485663	39.693	ppbV	#	60
45) diisopropyl ether	4.407	87	972672	43.290	ppbV	#	55
46) tert-butyl ethyl ether	4.660	59	2760499	44.084	ppbV		94
48) 1,1,1-trichloroethane	4.927	97	1506636	53.509	ppbV	#	97
49) 1,1-dichloropropene	5.073	75	1520810	50.881	ppbV	#	90
50) benzene	5.147	78	3544696	47.233	ppbV		97
51) thiophene	5.207	84	2048914	44.672	ppbV	#	92
52) carbon tetrachloride	5.220	117	1007316	50.415	ppbV		98
53) cyclohexane	5.280	56	1921372	45.909	ppbV	#	90
54) tert-amyl methyl ether	5.420	73	3018662	47.244	ppbV		93
55) dibromomethane	5.520	93	778048	41.788	ppbV		95
56) 1,2-dichloropropane	5.533	63	1010994	43.927	ppbV	#	96
57) bromodichloromethane	5.620	83	1468136	46.081	ppbV		99
58) 1,4-dioxane	5.633	88	747805	42.990	ppbV		99
59) trichloroethene	5.640	130	1054052	39.897	ppbV		97
60) 2,2,4-trimethylpentane	5.660	57	4761460	40.007	ppbV	#	90
61) methyl methacrylate	5.727	41	1098426	48.159	ppbV	#	81
62) heptane	5.780	43	1693955	41.641	ppbV	#	82
63) cis-1,3-dichloropropene	6.040	75	1471493	44.663	ppbV		91
64) 4-methyl-2-pentanone	6.047	43	1903316	40.007	ppbV	#	83
65) trans-1,3-dichloropropene	6.273	75	1324156	46.363	ppbV		94
66) 1,1,2-trichloroethane	6.360	97	1119463	42.856	ppbV		89

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204216.D  
 Acq On : 14 Dec 2022 6:11 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD050  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:22:35 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	3283264	46.578	ppbV	99
70) 2-methylthiophene	6.513	97	2696614M4	45.775	ppbV	
71) 1,3-dichloropropane	6.493	76	1496781	46.859	ppbV #	83
72) 2-hexanone	6.593	43	1594378	44.756	ppbV #	82
73) 3-methylthiophene	6.600	97	2469155	42.824	ppbV	98
74) dibromochloromethane	6.680	129	1091533	47.622	ppbV	96
75) 1,2-dibromoethane	6.793	107	1465726	46.904	ppbV	99
76) butyl acetate	6.880	73	524941	52.986	ppbV #	68
77) octane	6.927	85	1390210	46.024	ppbV #	73
78) tetrachloroethene	7.000	166	1091292	44.455	ppbV	95
79) 1,1,1,2-tetrachloroethane	7.303	131	774931	45.251	ppbV	99
80) chlorobenzene	7.310	112	2424502	42.729	ppbV	98
81) ethylbenzene	7.483	91	3772946	44.402	ppbV	94
82) 2-ethylthiophene	7.503	97	2691338	42.532	ppbV #	88
83) m+p-xylene	7.563	91	5280838	82.993	ppbV	94
84) bromoform	7.603	173	948088	50.432	ppbV	96
85) styrene	7.730	104	2665157	45.780	ppbV	99
86) 1,1,2,2-tetrachloroethane	7.777	83	1827698	40.873	ppbV	99
87) o-xylene	7.783	91	2492525	40.567	ppbV	100
88) 1,2,3-trichloropropane	7.843	75	1669567	49.044	ppbV	98
89) nonane	7.877	43	2097950	47.002	ppbV #	77
91) isopropylbenzene	8.063	105	3825609	43.363	ppbV	91
92) bromobenzene	8.110	77	2124081	45.749	ppbV	98
93) 2-chlorotoluene	8.297	126	1136679	43.281	ppbV	93
94) n-propylbenzene	8.317	120	1340296	42.726	ppbV	84
95) 4-chlorotoluene	8.337	126	1124620	47.498	ppbV	85
96) 4-ethyl toluene	8.390	105	4161200	46.181	ppbV	94
97) 1,3,5-trimethylbenzene	8.430	105	3155720	43.899	ppbV	91
98) tert-butylbenzene	8.637	119	2938695	40.755	ppbV	98
99) 1,2,4-trimethylbenzene	8.643	105	2677560	40.960	ppbV	97
100) decane	8.683	57	2717159	47.183	ppbV #	80
101) Benzyl Chloride	8.710	91	2285061	58.735	ppbV	98
102) 1,3-dichlorobenzene	8.723	146	1693332	44.833	ppbV	96
103) 1,4-dichlorobenzene	8.757	146	1803138	48.073	ppbV	97
104) sec-butylbenzene	8.777	105	4532681	47.094	ppbV	98
105) 1,2,3-trimethylbenzene	8.863	105	2369441	43.865	ppbV	96
106) p-isopropyltoluene	8.857	119	3309296M6	41.741	ppbV	
107) 1,2-dichlorobenzene	8.937	146	1703625	50.826	ppbV	96
108) n-butylbenzene	9.083	91	3464421	49.097	ppbV	98
109) indan	8.970	117	3302679	47.979	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204216.D  
 Acq On : 14 Dec 2022 6:11 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD050  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:22:35 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

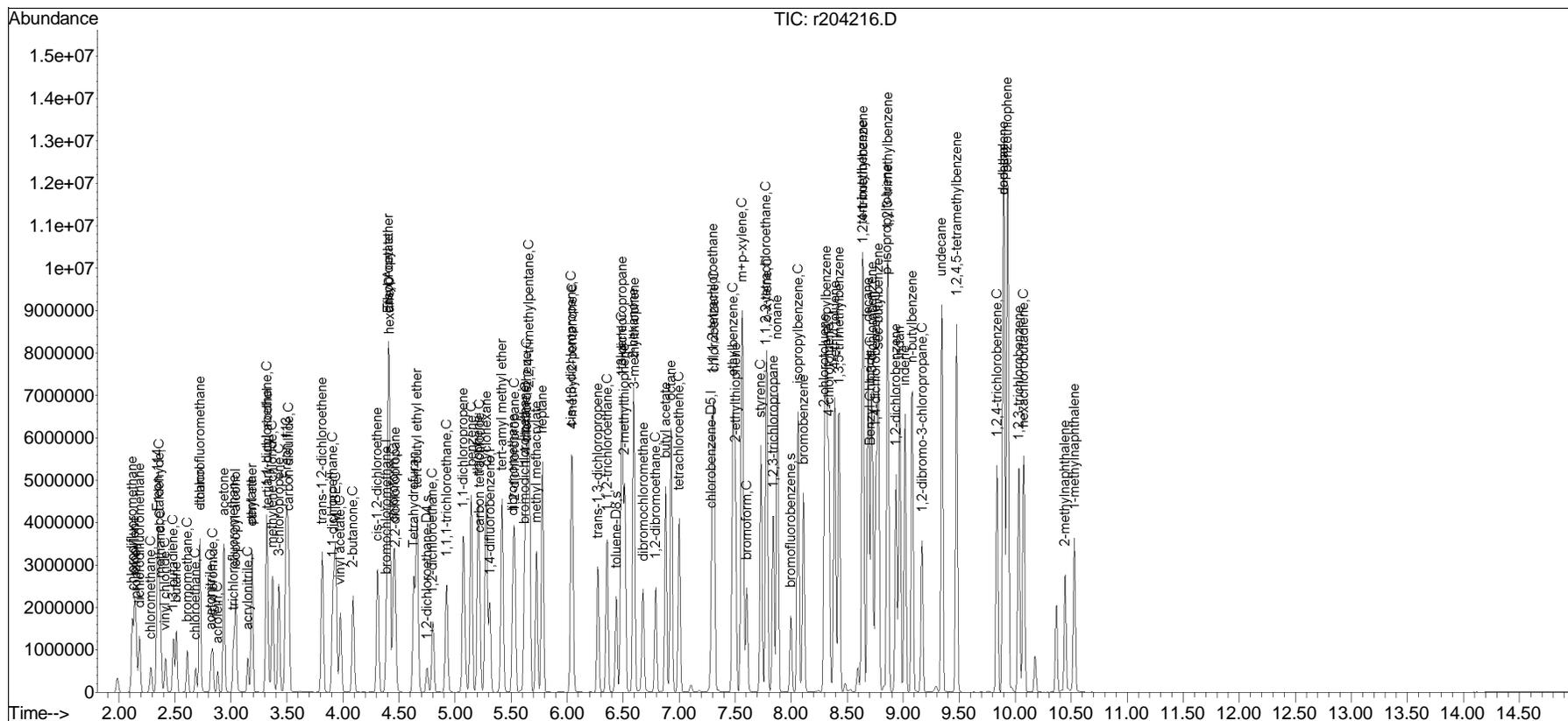
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	9.017	115	2776012	51.009	ppbV	99
111) 1,2-dibromo-3-chloropr...	9.170	75	756540	59.597	ppbV	95
112) undecane	9.343	57	2855320	46.105	ppbV	86
113) 1,2,4,5-tetramethylben...	9.477	119	3946162	41.441	ppbV	97
114) dodecane	9.898	57	2428292	38.005	ppbV	90
115) 1,2,4-trichlorobenzene	9.838	180	1515195	47.359	ppbV	97
116) naphthalene	9.898	128	3580256	41.141	ppbV	99
117) 1,2,3-trichlorobenzene	10.033	180	1471668	46.941	ppbV	97
118) benzothiophene	9.928	134	7842906	37.596	ppbV	98
119) hexachlorobutadiene	10.078	225	1062045	41.865	ppbV #	94
120) 2-methylnaphthalene	10.445	142	1080673	46.626	ppbV	99
121) 1-methylnaphthalene	10.528	142	1426021	50.229	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204216.D  
Acq On : 14 Dec 2022 6:11 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD050  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

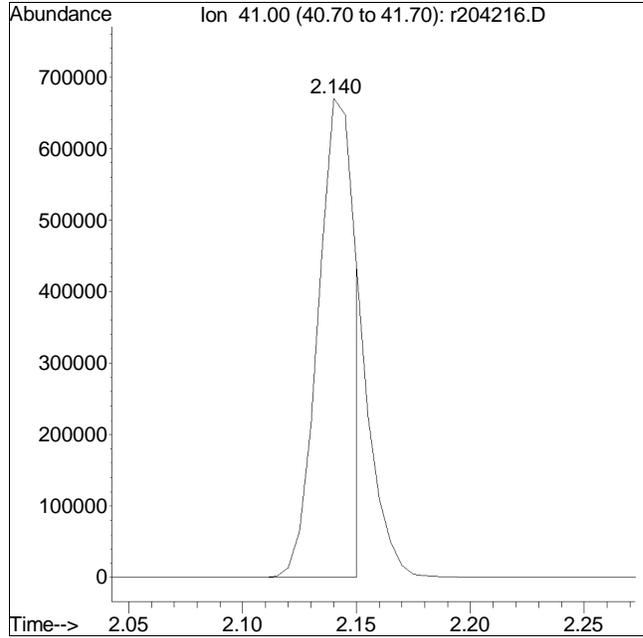
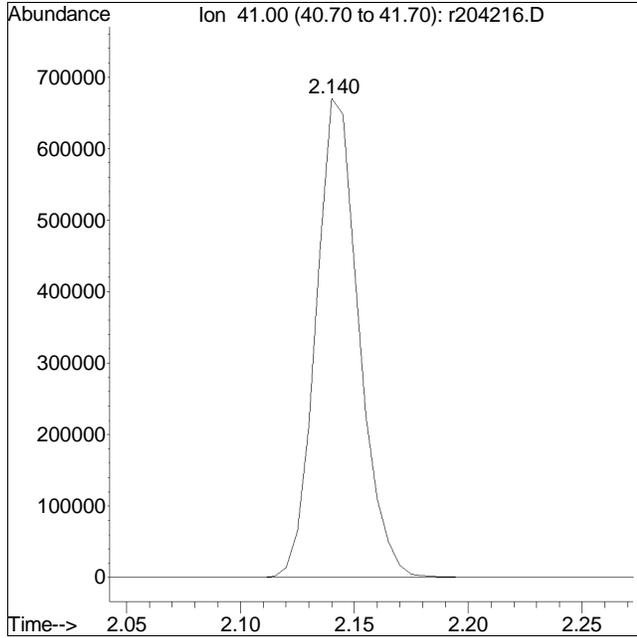
Quant Time: Dec 14 15:22:35 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204216.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:6: 1 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 877157

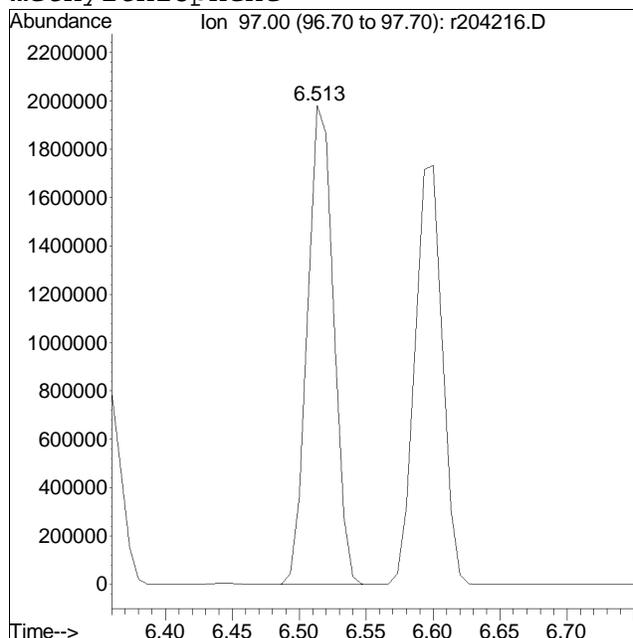
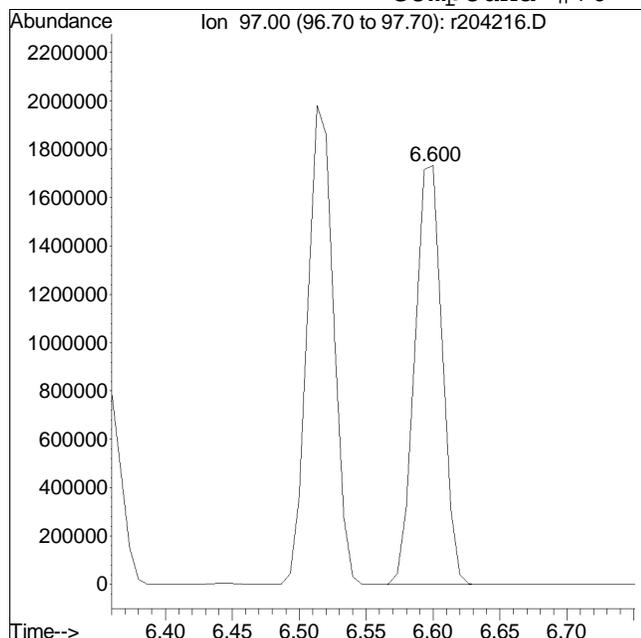
Manual Peak Response = 752776 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204216.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:6: 1 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 12/14/2022 12:14 pm

Compound #70: 2-methylthiophene



Original Peak Response = 2469155

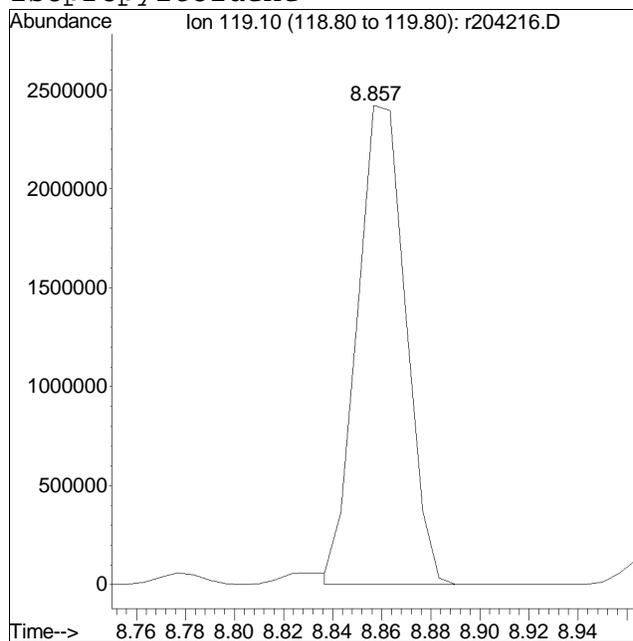
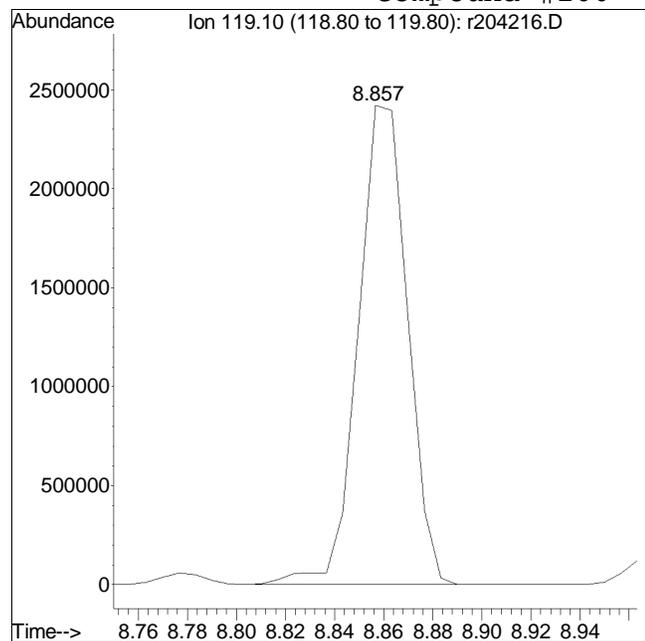
Manual Peak Response = 2696614 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204216.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:6: 1 Instrument :  
Sample : ITO15-LLSTD050 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 3389956

Manual Peak Response = 3309296 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204217.D  
 Acq On : 14 Dec 2022 6:44 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD100  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:36:34 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) bromochloromethane	4.387	49	307868	10.000	ppbV	0.00
Standard Area = 354966			Recovery =		86.73%	
43) 1,4-difluorobenzene	5.313	114	1298557	10.000	ppbV	0.00
Standard Area = 1399790			Recovery =		92.77%	
67) chlorobenzene-D5	7.290	54	100664	10.000	ppbV	# 0.00
Standard Area = 133534			Recovery =		75.38%	
<b>System Monitoring Compounds</b>						
47) 1,2-dichloroethane-D4	4.753	65	145326	8.078	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		80.78%	
69) toluene-D8	6.440	98	959417	10.949	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		109.49%	
90) bromofluorobenzene	7.997	95	603534	12.056	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =		120.56%	
<b>Target Compounds</b>						
2) chlorodifluoromethane	2.130	51	2316208	89.761	ppbV #	86
3) propylene	2.150	41	1068881M6	94.696	ppbV	
4) propane	2.165	29	843532	103.281	ppbV	93
5) dichlorodifluoromethane	2.190	85	1263668	82.790	ppbV	100
6) chloromethane	2.295	50	827467	105.389	ppbV	95
7) Freon-114	2.350	85	1913724	75.740	ppbV	94
8) methanol	2.380	31	1643678	508.127	ppbV #	80
9) vinyl chloride	2.420	62	1052341	103.489	ppbV	97
10) 1,3-butadiene	2.490	54	757442	101.537	ppbV	94
11) butane	2.515	43	1402575	110.253	ppbV	95
12) acetaldehyde	2.365	29	1984927	525.213	ppbV	84
13) bromomethane	2.615	94	696292	96.057	ppbV	97
14) chloroethane	2.685	64	467553	116.006	ppbV	96
15) ethanol	2.725	31	1997644	591.984	ppbV	87
16) dichlorofluoromethane	2.725	67	1385598	99.257	ppbV #	97
17) vinyl bromide	2.839	106	702425	100.509	ppbV	99
18) acrolein	2.884	56	363914	119.245	ppbV	96
19) acetone	2.938	43	4193607	559.180	ppbV	96
20) acetonitrile	2.824	41	783010	121.388	ppbV	99
21) trichlorofluoromethane	3.025	101	1019787	111.953	ppbV	96
22) isopropyl alcohol	3.046	45	3055687	282.706	ppbV	98
23) acrylonitrile	3.154	53	682013	121.609	ppbV	98
24) pentane	3.187	43	1762048	108.697	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204217.D  
 Acq On : 14 Dec 2022 6:44 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD100  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:36:34 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	3.190	31	1134444	130.947	ppbV	97
26) 1,1-dichloroethene	3.315	61	1724162	95.937	ppbV	91
27) tertiary butyl alcohol	3.325	59	2669236	98.874	ppbV	94
28) methylene chloride	3.375	49	1615193	99.760	ppbV #	81
29) 3-chloropropene	3.430	41	2303877	106.046	ppbV #	90
30) carbon disulfide	3.515	76	4537497	87.941	ppbV #	92
31) Freon 113	3.495	101	2353108	83.308	ppbV	98
32) trans-1,2-dichloroethene	3.817	61	2188032	96.992	ppbV	92
33) 1,1-dichloroethane	3.910	63	2722723	101.858	ppbV	99
34) MTBE	3.930	73	3788185	89.965	ppbV #	91
35) vinyl acetate	3.977	43	3195030	114.902	ppbV #	88
36) 2-butanone	4.090	43	2976942	95.887	ppbV #	88
37) cis-1,2-dichloroethene	4.313	61	1783055	90.842	ppbV	93
38) Ethyl Acetate	4.413	61	457258	80.156	ppbV #	34
39) chloroform	4.453	83	1895019	74.739	ppbV	98
40) Tetrahydrofuran	4.633	42	2052399	96.106	ppbV	90
41) 2,2-dichloropropane	4.467	77	1455139	77.605	ppbV #	94
42) 1,2-dichloroethane	4.800	62	1015960	82.831	ppbV #	87
44) hexane	4.413	57	2098614	66.116	ppbV #	70
45) diisopropyl ether	4.400	87	1348810	70.786	ppbV #	55
46) tert-butyl ethyl ether	4.660	59	4067785	76.600	ppbV	94
48) 1,1,1-trichloroethane	4.927	97	1781900	74.624	ppbV #	91
49) 1,1-dichloropropene	5.073	75	2048179	80.803	ppbV	89
50) benzene	5.147	78	5066758	79.611	ppbV	97
51) thiophene	5.207	84	2883182	74.124	ppbV #	94
52) carbon tetrachloride	5.220	117	1287784	76.001	ppbV	100
53) cyclohexane	5.280	56	2863967	80.692	ppbV #	90
54) tert-amyl methyl ether	5.420	73	4245753	78.355	ppbV	95
55) dibromomethane	5.520	93	1080988	68.462	ppbV	99
56) 1,2-dichloropropane	5.533	63	1480732	75.864	ppbV	95
57) bromodichloromethane	5.620	83	1980580	73.304	ppbV	99
58) 1,4-dioxane	5.633	88	1028098	69.693	ppbV	100
59) trichloroethene	5.647	130	1423848	63.550	ppbV	99
60) 2,2,4-trimethylpentane	5.660	57	6861333	67.980	ppbV #	92
61) methyl methacrylate	5.727	41	1714953	88.662	ppbV #	84
62) heptane	5.780	43	2637770	76.461	ppbV #	84
63) cis-1,3-dichloropropene	6.040	75	2011539	71.995	ppbV	95
64) 4-methyl-2-pentanone	6.047	43	2919128	72.353	ppbV #	85
65) trans-1,3-dichloropropene	6.280	75	1902669	78.555	ppbV	99
66) 1,1,2-trichloroethane	6.360	97	1621236	73.185	ppbV	90

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204217.D  
 Acq On : 14 Dec 2022 6:44 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD100  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:36:34 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	6.487	91	4484574	77.642	ppbV	98
70) 2-methylthiophene	6.520	97	3949682	81.822	ppbV	98
71) 1,3-dichloropropane	6.500	76	2074846	79.271	ppbV	91
72) 2-hexanone	6.593	43	2453309	84.044	ppbV #	85
73) 3-methylthiophene	6.600	97	3549525	75.129	ppbV	97
74) dibromochloromethane	6.680	129	1693347	90.161	ppbV	98
75) 1,2-dibromoethane	6.793	107	2139901	83.570	ppbV	98
76) butyl acetate	6.880	73	812020	100.026	ppbV	72
77) octane	6.933	85	2044158	82.587	ppbV	82
78) tetrachloroethene	7.000	166	1526902	75.908	ppbV	99
79) 1,1,1,2-tetrachloroethane	7.303	131	1115907	79.523	ppbV	100
80) chlorobenzene	7.317	112	3301490	71.008	ppbV	99
81) ethylbenzene	7.483	91	5346294	76.785	ppbV	96
82) 2-ethylthiophene	7.503	97	3927729	75.751	ppbV	91
83) m+p-xylene	7.563	91	7561659	145.029	ppbV	94
84) bromoform	7.603	173	1305738	84.764	ppbV	98
85) styrene	7.730	104	4035608	84.598	ppbV	98
86) 1,1,2,2-tetrachloroethane	7.777	83	2667305	72.795	ppbV	99
87) o-xylene	7.783	91	3645194	72.402	ppbV	97
88) 1,2,3-trichloropropane	7.843	75	2593478	92.975	ppbV	98
89) nonane	7.877	43	3353939	91.700	ppbV #	82
91) isopropylbenzene	8.063	105	5684922	78.640	ppbV	90
92) bromobenzene	8.110	77	3188250	83.802	ppbV	99
93) 2-chlorotoluene	8.297	126	1697067	78.860	ppbV	82
94) n-propylbenzene	8.317	120	1976940	76.911	ppbV	80
95) 4-chlorotoluene	8.337	126	1770072	91.235	ppbV	87
96) 4-ethyl toluene	8.390	105	6234673	84.442	ppbV	95
97) 1,3,5-trimethylbenzene	8.430	105	4864435	82.582	ppbV	91
98) tert-butylbenzene	8.637	119	4316048	73.048	ppbV	95
99) 1,2,4-trimethylbenzene	8.643	105	3933656	73.436	ppbV	93
100) decane	8.690	57	4174947	88.475	ppbV	86
101) Benzyl Chloride	8.717	91	3796564	119.093	ppbV	100
102) 1,3-dichlorobenzene	8.730	146	2640164	85.306	ppbV	92
103) 1,4-dichlorobenzene	8.757	146	2516195	81.868	ppbV	96
104) sec-butylbenzene	8.783	105	6871722	87.132	ppbV	96
105) 1,2,3-trimethylbenzene	8.863	105	3553877	80.291	ppbV	96
106) p-isopropyltoluene	8.863	119	4866316M6	74.907	ppbV	
107) 1,2-dichlorobenzene	8.937	146	2599273	94.637	ppbV	94
108) n-butylbenzene	9.083	91	5393152	93.275	ppbV	99
109) indan	8.970	117	5020389	89.006	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204217.D  
 Acq On : 14 Dec 2022 6:44 AM  
 Operator : AIRLAB20:TJS  
 Sample : ITO15-LLSTD100  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:36:34 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 12:13:37 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default - All compounds listed

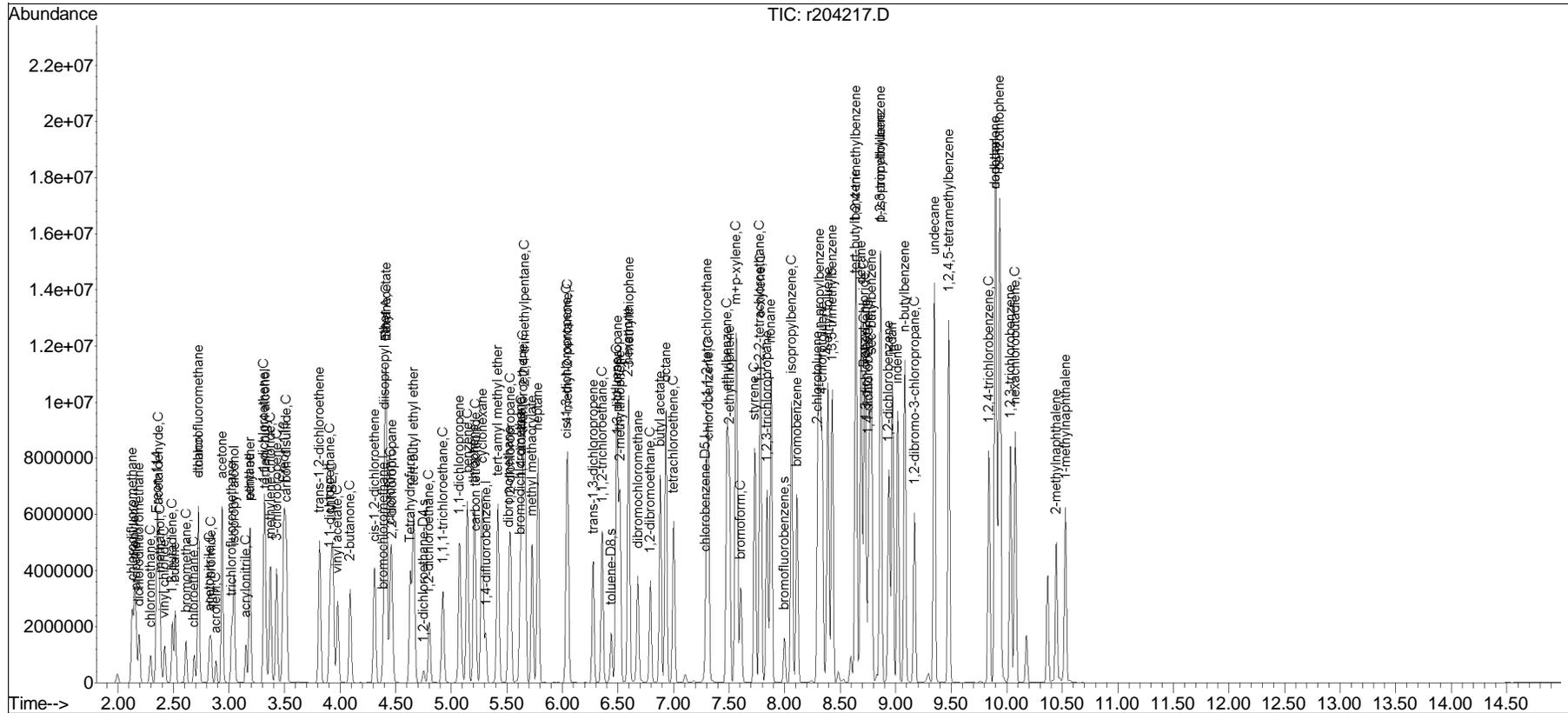
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	9.017	115	4291654	96.239	ppbV	99
111) 1,2-dibromo-3-chloropr...	9.170	75	1297677	124.754	ppbV	91
112) undecane	9.350	57	4440028	87.493	ppbV	90
113) 1,2,4,5-tetramethylben...	9.477	119	5888767	75.470	ppbV	94
114) dodecane	9.898	57	3606573	68.886	ppbV	91
115) 1,2,4-trichlorobenzene	9.838	180	2374460	90.573	ppbV	96
116) naphthalene	9.898	128	5467513	76.674	ppbV	97
117) 1,2,3-trichlorobenzene	10.033	180	2219485	86.395	ppbV #	91
118) benzothiophene	9.935	134	10727600	62.757	ppbV #	91
119) hexachlorobutadiene	10.078	225	1634028	78.607	ppbV #	92
120) 2-methylnaphthalene	10.445	142	1989475	104.754	ppbV	98
121) 1-methylnaphthalene	10.528	142	2390518	102.758	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed2\12\1213T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204217.D  
Acq On : 14 Dec 2022 6:44 AM  
Operator : AIRLAB20:TJS  
Sample : ITO15-LLSTD100  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

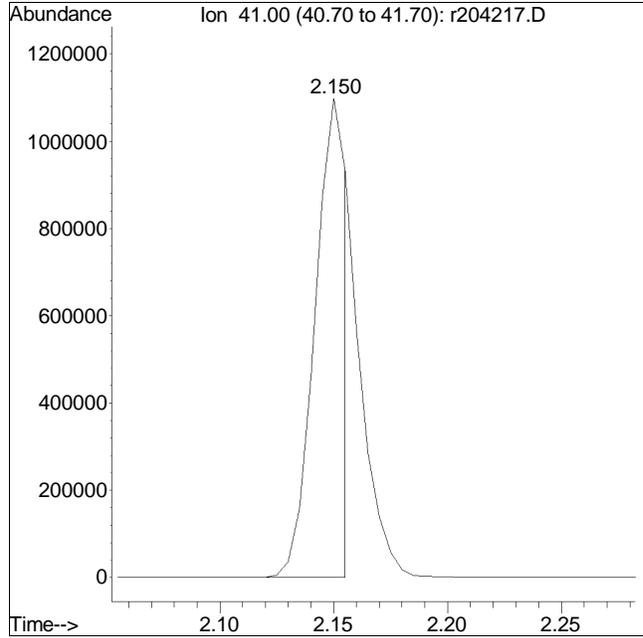
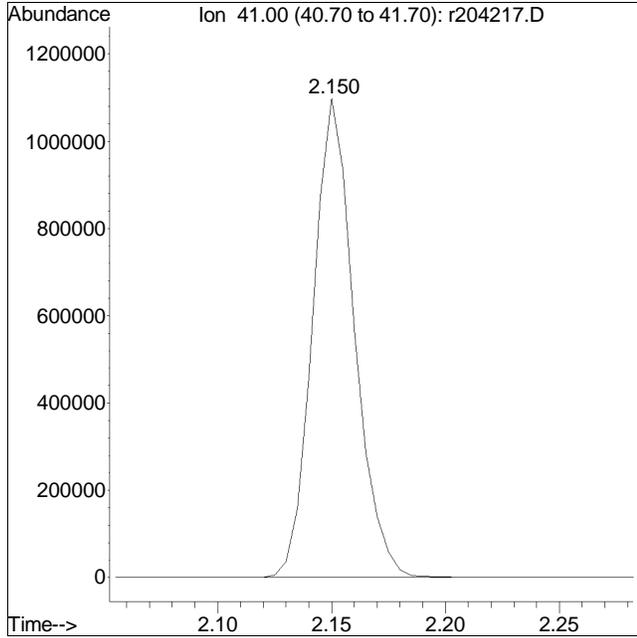
Quant Time: Dec 14 15:36:34 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 12:13:37 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204217.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:6: 4 Instrument :  
Sample : ITO15-LLSTD100 Quant Date : 12/14/2022 12:14 pm

Compound #3: propylene



Original Peak Response = 1393310

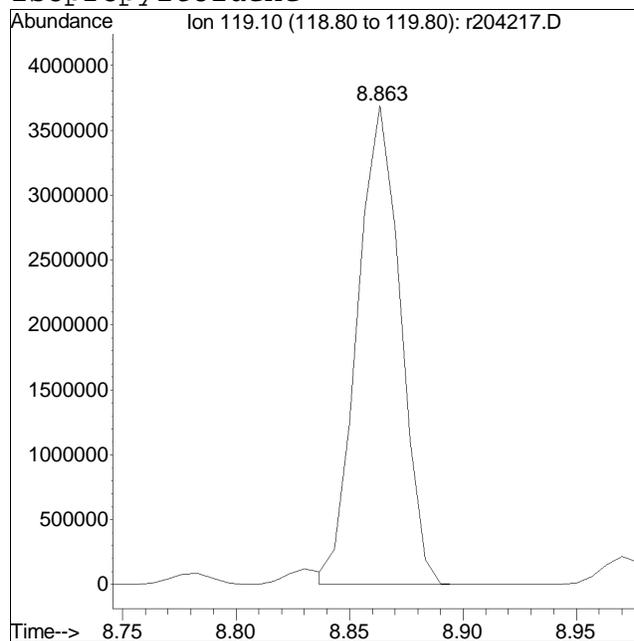
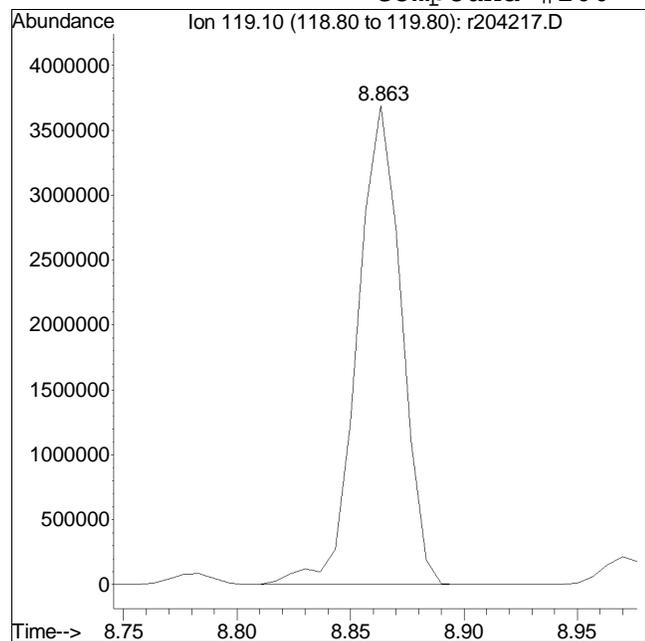
Manual Peak Response = 1068881 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204217.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:6: 4 Instrument :  
Sample : IT015-LLSTD100 Quant Date : 12/14/2022 12:14 pm

Compound #106: p-isopropyltoluene



Original Peak Response = 4997064

Manual Peak Response = 4866316 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CT015-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	103	0.00
2	chlorodifluoromethane	0.845	0.826	2.2	101	0.00
3	propylene	0.390	0.432	-10.8	121	0.00
4	propane	0.286	0.269	5.9	104	0.00
5	dichlorodifluoromethane	0.674	0.685	-1.6	142#	0.00
6 C	chloromethane	0.276	0.299	-8.3	120	0.00
7	Freon-114	0.896	0.987	-10.2	123	0.00
8 C	methanol	0.115	0.100	13.0	98	0.00
9 C	vinyl chloride	0.368	0.390	-6.0	121	0.00
10 C	1,3-butadiene	0.273	0.292	-7.0	124	0.00
11	butane	0.493	0.436	11.6	108	0.00
13 C	bromomethane	0.271	0.275	-1.5	120	0.00
14 C	chloroethane	0.147	0.153	-4.1	120	0.00
15	ethanol	0.120	0.110	8.3	103	0.00
16	dichlorofluoromethane	0.492	0.490	0.4	111	0.00
17 C	vinyl bromide	0.264	0.255	3.4	115	0.00
18 C	acrolein	0.116	0.105	9.5	109	0.00
19	acetone	0.270	0.305	-13.0	128	0.00
20 C	acetonitrile	0.230	0.212	7.8	104	0.00
21	trichlorofluoromethane	0.350	0.345	1.4	120	0.00
22	isopropyl alcohol	0.404	0.395	2.2	115	0.00
23 C	acrylonitrile	0.211	0.192	9.0	108	0.00
24	pentane	0.536	0.507	5.4	99	0.00
25	ethyl ether	0.306	0.280	8.5	102	0.00
26 C	1,1-dichloroethene	0.605	0.670	-10.7	118	0.00
27	tertiary butyl alcohol	0.800	0.855	-6.9	100	0.00
28 C	methylene chloride	0.566	0.600	-6.0	117	0.00
29 C	3-chloropropene	0.714	0.840	-17.6	122	0.00
30 C	carbon disulfide	1.692	1.755	-3.7	107	0.00
31	Freon 113	0.931	1.055	-13.3	118	0.00
32	trans-1,2-dichloroethene	0.773	0.794	-2.7	111	0.00
33 C	1,1-dichloroethane	0.932	1.001	-7.4	118	0.00
34 C	MTBE	1.463	1.603	-9.6	120	0.00
35 C	vinyl acetate	0.935	0.960	-2.7	109	0.00
36 C	2-butanone	1.084	1.142	-5.4	116	0.00
37	cis-1,2-dichloroethene	0.674	0.744	-10.4	120	0.00
38	Ethyl Acetate	0.168	0.210	-25.0	116	0.00
39 C	chloroform	0.872	0.966	-10.8	120	0.00
40	Tetrahydrofuran	0.721	0.761	-5.5	113	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CTO15-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	0.600	0.630	-5.0	106	0.00
42 C	1,2-dichloroethane	0.507	0.475	6.3	122	0.00
43 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00
44 C	hexane	0.246	0.271	-10.2	114	0.00
45	diisopropyl ether	0.151	0.151	0.0	105	0.00
46	tert-butyl ethyl ether	0.417	0.419	-0.5	105	0.00
47 s	1,2-dichloroethane-D4	0.174	0.145	16.7	107	0.00
48 C	1,1,1-trichloroethane	0.221	0.222	-0.5	124	0.00
49	1,1-dichloropropene	0.222	0.212	4.5	111	0.00
50 C	benzene	0.536	0.548	-2.2	115	0.00
52 C	carbon tetrachloride	0.147	0.160	-8.8	126	0.00
53	cyclohexane	0.285	0.311	-9.1	117	0.00
54	tert-amyl methyl ether	0.434	0.436	-0.5	107	0.00
55	dibromomethane	0.135	0.126	6.7	106	0.00
56 C	1,2-dichloropropane	0.158	0.171	-8.2	117	0.00
57	bromodichloromethane	0.230	0.246	-7.0	121	0.00
58 C	1,4-dioxane	0.121	0.129	-6.6	116	0.00
59 C	trichloroethene	0.180	0.194	-7.8	116	0.00
60 C	2,2,4-trimethylpentane	0.798	0.876	-9.8	116	0.00
61	methyl methacrylate	0.155	0.169	-9.0	117	0.00
62	heptane	0.288	0.305	-5.9	118	0.00
63 C	cis-1,3-dichloropropene	0.215	0.258	-20.0	123	0.00
64 C	4-methyl-2-pentanone	0.327	0.357	-9.2	118	0.00
65	trans-1,3-dichloropropene	0.186	0.199	-7.0	110	0.00
66 C	1,1,2-trichloroethane	0.178	0.200	-12.4	120	0.00
67 I	chlorobenzene-D5	1.000	1.000	0.0	104	0.00
68 C	toluene	5.752	6.466	-12.4	117	0.00
69 s	toluene-D8	8.161	8.492	-4.1	102	0.00
71	1,3-dichloropropane	2.557	2.628	-2.8	105	0.00
72	2-hexanone	2.853	3.442	-20.6	124	0.00
74	dibromochloromethane	1.745	2.204	-26.3	123	0.00
75 C	1,2-dibromoethane	2.305	2.922	-26.8	120	0.00
76	butyl acetate	0.722	0.825	-14.3	107	0.00
77	octane	2.309	2.461	-6.6	104	0.00
78 C	tetrachloroethene	1.918	2.292	-19.5	120	0.00
79	1,1,1,2-tetrachloroethane	1.235	1.396	-13.0	104	0.00
80 C	chlorobenzene	4.239	5.173	-22.0	117	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CT015-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81 C	ethylbenzene	6.573	7.858	-19.5	118	0.00
83 C	m+p-xylene	5.157	6.067	-17.6	122	0.00
84 C	bromoform	1.302	1.736	-33.3#	118	0.00
85 C	styrene	4.505	5.404	-20.0	119	0.00
86 C	1,1,2,2-tetrachloroethane	3.425	4.147	-21.1	119	0.00
87 C	o-xylene	5.056	5.730	-13.3	119	0.00
88	1,2,3-trichloropropane	2.947	2.848	3.4	107	0.00
89	nonane	3.776	3.646	3.4	105	0.00
90 s	bromofluorobenzene	4.892	4.875	0.3	102	0.00
91 C	isopropylbenzene	7.143	7.482	-4.7	109	0.00
92	bromobenzene	3.920	3.836	2.1	106	0.00
93	2-chlorotoluene	2.042	2.099	-2.8	102	0.00
94	n-propylbenzene	2.420	2.546	-5.2	104	0.00
95	4-chlorotoluene	1.977	1.874	5.2	101	0.00
96	4-ethyl toluene	7.649	8.152	-6.6	116	0.00
97	1,3,5-trimethylbenzene	6.175	6.635	-7.4	118	0.00
98	tert-butylbenzene	6.227	5.720	8.1	102	0.00
99	1,2,4-trimethylbenzene	5.766	6.065	-5.2	119	0.00
100	decane	4.827	4.580	5.1	102	0.00
101 C	Benzyl Chloride	2.778	3.435	-23.7	113	0.00
102	1,3-dichlorobenzene	3.233	3.402	-5.2	115	0.00
103 C	1,4-dichlorobenzene	3.289	3.352	-1.9	114	0.00
104	sec-butylbenzene	8.673	7.705	11.2	103	0.00
106	p-isopropyltoluene	7.138	6.183	13.4	100	0.00
107	1,2-dichlorobenzene	3.068	3.122	-1.8	119	0.00
108	n-butylbenzene	6.528	6.006	8.0	109	0.00
111 C	1,2-dibromo-3-chloropropane	1.077	1.044	3.1	105	0.00
112	undecane	5.235	5.173	1.2	107	0.00
114	dodecane	4.978	5.468	-9.8	110	0.00
115 C	1,2,4-trichlorobenzene	2.735	3.140	-14.8	126	0.00
116	naphthalene	7.256	7.446	-2.6	110	0.00
117	1,2,3-trichlorobenzene	2.624	2.712	-3.4	111	0.00
119 C	hexachlorobutadiene	2.397	2.415	-0.8	122	0.00

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CTO15-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) bromochloromethane	4.387	49	364153	10.000	ppbV	0.00	
Standard Area = 354966			Recovery = 102.59%				
43) 1,4-difluorobenzene	5.307	114	1438144	10.000	ppbV	0.00	
Standard Area = 1399790			Recovery = 102.74%				
67) chlorobenzene-D5	7.290	54	139208	10.000	ppbV	0.00	
Standard Area = 133534			Recovery = 104.25%				
<b>System Monitoring Compounds</b>							
47) 1,2-dichloroethane-D4	4.747	65	208006	8.322	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 83.22%				
69) toluene-D8	6.440	98	1182102	10.405	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.05%				
90) bromofluorobenzene	7.997	95	678657	9.966	ppbV	0.00	
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.66%				
<b>Target Compounds</b>							
2) chlorodifluoromethane	2.125	51	300776	9.771	ppbV	95	Qvalue
3) propylene	2.145	41	157176M6	11.054	ppbV		
4) propane	2.160	29	97835	9.400	ppbV #	93	
5) dichlorodifluoromethane	2.190	85	249264	10.161	ppbV	99	
6) chloromethane	2.290	50	109032	10.862	ppbV	96	
7) Freon-114	2.350	85	359342	11.009	ppbV	93	
8) methanol	2.375	31	182385	43.677	ppbV #	72	
9) vinyl chloride	2.420	62	141897	10.578	ppbV	97	
10) 1,3-butadiene	2.490	54	106282	10.707	ppbV	97	
11) butane	2.515	43	158619	8.842	ppbV #	95	
13) bromomethane	2.610	94	99995	10.144	ppbV	98	
14) chloroethane	2.685	64	55667	10.419	ppbV	95	
15) ethanol	2.725	31	200433	45.933	ppbV	94	
16) dichlorofluoromethane	2.725	67	178319	9.945	ppbV	98	
17) vinyl bromide	2.836	106	92937	9.681	ppbV	99	
18) acrolein	2.881	56	38204	9.058	ppbV	95	
19) acetone	2.938	43	555015	56.459	ppbV	97	
20) acetonitrile	2.821	41	77101	9.198	ppbV	100	
21) trichlorofluoromethane	3.025	101	125800	9.858	ppbV	97	
22) isopropyl alcohol	3.046	45	359664	24.454	ppbV	98	
23) acrylonitrile	3.151	53	70000	9.108	ppbV	98	
24) pentane	3.187	43	184648	9.456	ppbV	97	
25) ethyl ether	3.190	31	102031	9.147	ppbV #	89	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CTO15-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	3.315	61	244156	11.085	ppbV	93
27) tertiary butyl alcohol	3.325	59	311343	10.684	ppbV #	94
28) methylene chloride	3.370	49	218615	10.604	ppbV	82
29) 3-chloropropene	3.430	41	305959	11.761	ppbV #	93
30) carbon disulfide	3.515	76	638914	10.372	ppbV #	92
31) Freon 113	3.495	101	384354	11.334	ppbV	98
32) trans-1,2-dichloroethene	3.817	61	289016	10.273	ppbV	95
33) 1,1-dichloroethane	3.910	63	364626	10.742	ppbV	99
34) MTBE	3.937	73	583738	10.955	ppbV #	93
35) vinyl acetate	3.977	43	349702	10.266	ppbV #	92
36) 2-butanone	4.090	43	415980	10.537	ppbV #	88
37) cis-1,2-dichloroethene	4.307	61	271053	11.047	ppbV	93
38) Ethyl Acetate	4.407	61	76576	12.521	ppbV #	51
39) chloroform	4.447	83	351859	11.084	ppbV #	96
40) Tetrahydrofuran	4.633	42	277229	10.561	ppbV #	86
41) 2,2-dichloropropane	4.467	77	229290	10.490	ppbV	97
42) 1,2-dichloroethane	4.800	62	173015	9.363	ppbV #	93
44) hexane	4.413	57	389275	11.010	ppbV #	63
45) diisopropyl ether	4.407	87	216694	9.967	ppbV #	64
46) tert-butyl ethyl ether	4.660	59	602185	10.036	ppbV	96
48) 1,1,1-trichloroethane	4.927	97	319192	10.032	ppbV	98
49) 1,1-dichloropropene	5.073	75	304588	9.554	ppbV	91
50) benzene	5.147	78	788294	10.218	ppbV	96
52) carbon tetrachloride	5.213	117	229553	10.888	ppbV	98
53) cyclohexane	5.280	56	447212	10.930	ppbV #	92
54) tert-amyl methyl ether	5.420	73	626824	10.045	ppbV	93
55) dibromomethane	5.520	93	181184	9.346	ppbV	97
56) 1,2-dichloropropane	5.533	63	246438	10.846	ppbV	96
57) bromodichloromethane	5.620	83	353108M6	10.695	ppbV	
58) 1,4-dioxane	5.633	88	185136	10.678	ppbV	98
59) trichloroethene	5.640	130	279090	10.803	ppbV	99
60) 2,2,4-trimethylpentane	5.660	57	1259481	10.974	ppbV #	91
61) methyl methacrylate	5.727	41	243680	10.905	ppbV #	85
62) heptane	5.780	43	438747	10.596	ppbV #	83
63) cis-1,3-dichloropropene	6.040	75	371045	12.011	ppbV	92
64) 4-methyl-2-pentanone	6.047	43	513429	10.907	ppbV #	86
65) trans-1,3-dichloropropene	6.273	75	286574	10.723	ppbV	94
66) 1,1,2-trichloroethane	6.353	97	286992	11.192	ppbV	91
68) toluene	6.487	91	900054	11.240	ppbV	100
71) 1,3-dichloropropane	6.493	76	365847	10.279	ppbV #	84

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
 Data File : r204223.D  
 Acq On : 14 Dec 2022 1:12 PM  
 Operator : AIRLAB20:TJS  
 Sample : CTO15-LLSTD10.0  
 Misc : WG1723369  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
 Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72) 2-hexanone	6.593	43	479195	12.064	ppbV #	86
74) dibromochloromethane	6.680	129	306811	12.627	ppbV	98
75) 1,2-dibromoethane	6.787	107	406830	12.679	ppbV	99
76) butyl acetate	6.880	73	114911	11.426	ppbV	72
77) octane	6.927	85	342633	10.658	ppbV #	75
78) tetrachloroethene	7.000	166	319043	11.947	ppbV	97
79) 1,1,1,2-tetrachloroethane	7.303	131	194332	11.305	ppbV	96
80) chlorobenzene	7.310	112	720091	12.202	ppbV	99
81) ethylbenzene	7.477	91	1093910	11.955	ppbV	96
83) m+p-xylene	7.563	91	1689188	23.531	ppbV	98
84) bromoform	7.603	173	241714	13.333	ppbV	99
85) styrene	7.730	104	752265	11.996	ppbV	99
86) 1,1,2,2-tetrachloroethane	7.777	83	577304	12.109	ppbV	100
87) o-xylene	7.783	91	797668	11.333	ppbV	98
88) 1,2,3-trichloropropane	7.837	75	396476	9.663	ppbV	97
89) nonane	7.877	43	507621	9.658	ppbV #	74
91) isopropylbenzene	8.057	105	1041544	10.475	ppbV	95
92) bromobenzene	8.110	77	534048	9.788	ppbV	100
93) 2-chlorotoluene	8.297	126	292193	10.277	ppbV	81
94) n-propylbenzene	8.310	120	354459	10.520	ppbV	92
95) 4-chlorotoluene	8.330	126	260851	9.479	ppbV	94
96) 4-ethyl toluene	8.383	105	1134822	10.658	ppbV	97
97) 1,3,5-trimethylbenzene	8.423	105	923608	10.744	ppbV	93
98) tert-butylbenzene	8.637	119	796326	9.187	ppbV	100
99) 1,2,4-trimethylbenzene	8.637	105	844253	10.518	ppbV	95
100) decane	8.683	57	637524	9.488	ppbV #	79
101) Benzyl Chloride	8.710	91	478225	12.366	ppbV	98
102) 1,3-dichlorobenzene	8.723	146	473521	10.521	ppbV	97
103) 1,4-dichlorobenzene	8.757	146	466570	10.189	ppbV	97
104) sec-butylbenzene	8.777	105	1072608	8.884	ppbV	99
106) p-isopropyltoluene	8.857	119	860788	8.662	ppbV	96
107) 1,2-dichlorobenzene	8.937	146	434676	10.179	ppbV	96
108) n-butylbenzene	9.077	91	836085	9.200	ppbV	97
111) 1,2-dibromo-3-chloropr...	9.163	75	145304	9.696	ppbV	85
112) undecane	9.343	57	720122	9.882	ppbV #	82
114) dodecane	9.898	57	761204	10.985	ppbV #	82
115) 1,2,4-trichlorobenzene	9.838	180	437048	11.481	ppbV	97
116) naphthalene	9.898	128	1036493	10.262	ppbV	99
117) 1,2,3-trichlorobenzene	10.033	180	377486	10.334	ppbV	98
119) hexachlorobutadiene	10.070	225	336165	10.074	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204223.D  
Acq On : 14 Dec 2022 1:12 PM  
Operator : AIRLAB20:TJS  
Sample : CT015-LLSTD10.0  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 14 15:43:39 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\r204220.D  
Sub List : Default-ICV-AP2 - All compounds listed

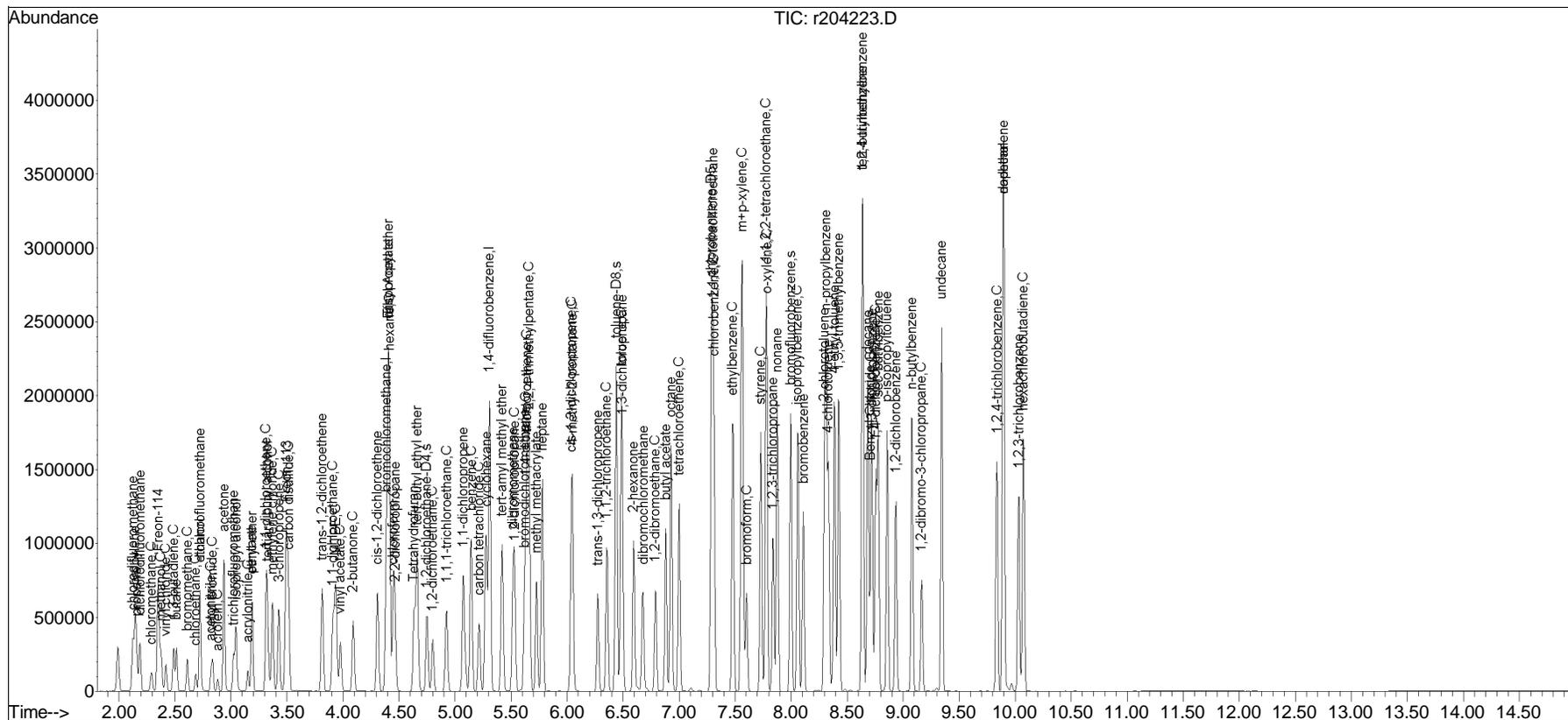
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
----------	------	------	----------	------	-------	----------

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listed3T\_I\r204220.D

Data Path : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\  
Data File : r204223.D  
Acq On : 14 Dec 2022 1:12 PM  
Operator : AIRLAB20:TJS  
Sample : CTO15-LLSTD10.0  
Misc : WG1723369  
ALS Vial : 0 Sample Multiplier: 1

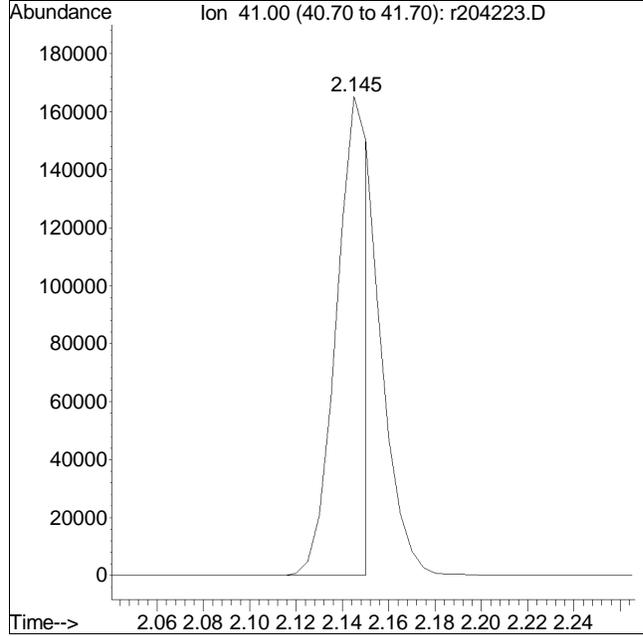
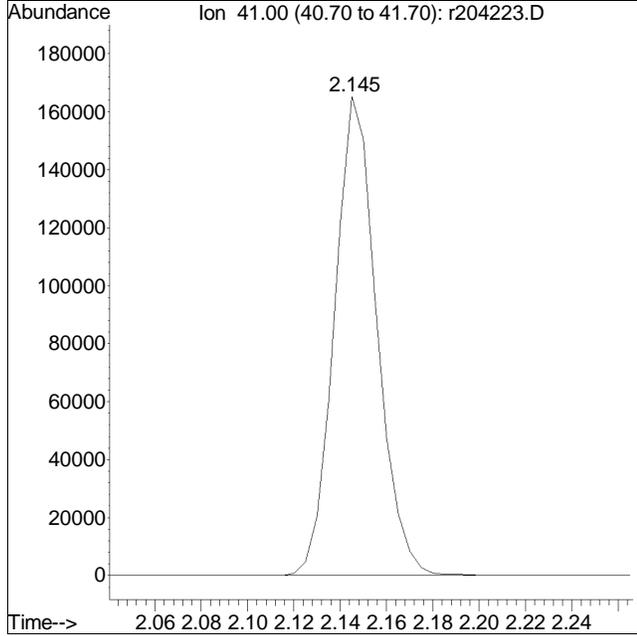
Quant Time: Dec 14 15:43:39 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1213T\_I\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration



Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204223.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:1: 2 Instrument :  
Sample : CTO15-LLSTD10.0 Quant Date : 12/14/2022 3:42 pm

Compound #3: propylene



Original Peak Response = 210390

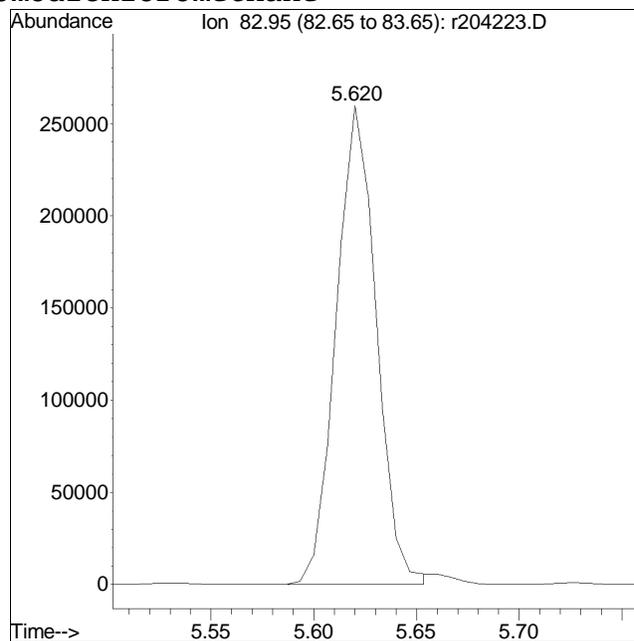
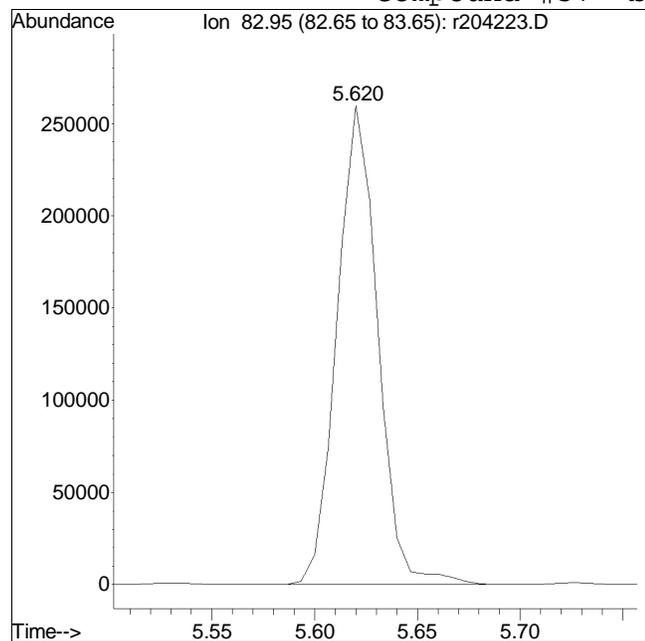
Manual Peak Response = 157176 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# Manual Integration Report

Data Path : O:\Forensics\Data\Airlab20QMethod : TFS20\_221213.M  
Data File : r204223.D Operator : AIRLAB20:TJS  
Date Inj'd : 12/14/2020 0:1: 2 Instrument :  
Sample : CT015-LLSTD10.0 Quant Date : 12/14/2022 3:42 pm

## Compound #57: bromodichloromethane



Original Peak Response = 357998

Manual Peak Response = 353108 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

# **Continuing Calibration**

# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Instrument ID : AIRLAB20	Calibration Date : 12/21/22 13:55
Lab File ID : R204327	Init. Calib. Date(s) : 12/14/22 12/14/22
Sample No : WG1726244-2	Init. Calib. Times : 03:03 10:33
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	104	-.01
chlorodifluoromethane	0.845	0.638	-	24.5	30	79	0
propylene	0.39	0.446	-	-14.4	30	126	-.01
propane	0.286	0.334	-	-16.8	30	130	-.01
dichlorodifluoromethane	0.674	0.659	-	2.2	30	138	-.01
chloromethane	0.276	0.322	-	-16.7	30	131	-.01
Freon-114	0.896	0.812	-	9.4	30	102	-.02
methanol	0.115	0.135	-	-17.4	30	133	-.02
vinyl chloride	0.368	0.362	-	1.6	30	113	0
1,3-butadiene	0.273	0.261	-	4.4	30	111	-.02
butane	0.493	0.461	-	6.5	30	116	-.01
bromomethane	0.271	0.218	-	19.6	30	96	0
chloroethane	0.147	0.147	-	0	30	116	-.01
ethanol	0.12	0.154	-	-28.3	30	145	-.02
dichlorofluoromethane	0.492	0.432	-	12.2	30	99	-.02
vinyl bromide	0.264	0.188	-	28.8	30	86	-.01
acrolein	0.116	0.103	-	11.2	30	107	-.01
acetone	0.27	0.306	-	-13.3	30	130	-.02
acetonitrile	0.23	0.223	-	3	30	110	-.01
trichlorofluoromethane	0.35	0.417	-	-19.1	30	146	-.01
isopropyl alcohol	0.404	0.395	-	2.2	30	117	-.02
acrylonitrile	0.211	0.198	-	6.2	30	113	-.01
pentane	0.536	0.448	-	16.4	30	88	-.01
ethyl ether	0.306	0.364	-	-19	30	134	-.01
1,1-dichloroethene	0.605	0.712	-	-17.7	30	126	-.02
tertiary butyl alcohol	0.8	0.844	-	-5.5	30	100	-.02
methylene chloride	0.566	0.561	-	0.9	30	110	-.02
3-chloropropene	0.714	0.787	-	-10.2	30	115	-.01
carbon disulfide	1.692	1.369	-	19.1	30	85	-.02
Freon 113	0.931	0.903	-	3	30	102	-.02
trans-1,2-dichloroethene	0.773	0.73	-	5.6	30	103	-.02
1,1-dichloroethane	0.932	0.984	-	-5.6	30	117	-.01
MTBE	1.463	1.361	-	7	30	103	-.02
vinyl acetate	0.935	0.897	-	4.1	30	103	-.01
2-butanone	1.084	1.093	-	-0.8	30	112	-.01
cis-1,2-dichloroethene	0.674	0.744	-	-10.4	30	121	-.01
Ethyl Acetate	0.168	0.182	-	-8.3	30	102	-.01
chloroform	0.872	0.911	-	-4.5	30	114	-.01
Tetrahydrofuran	0.721	0.732	-	-1.5	30	109	-.01
2,2-dichloropropane	0.6	0.629	-	-4.8	30	107	-.01
1,2-dichloroethane	0.507	0.608	-	-19.9	30	158	-.01
1,4-difluorobenzene	1	1	-	0	30	86	-.01
hexane	0.246	0.284	-	-15.4	30	100	-.02

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Instrument ID : AIRLAB20	Calibration Date : 12/21/22 13:55
Lab File ID : R204327	Init. Calib. Date(s) : 12/14/22 12/14/22
Sample No : WG1726244-2	Init. Calib. Times : 03:03 10:33
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
diisopropyl ether	0.151	0.153	-	-1.3	30	90	-.02
tert-butyl ethyl ether	0.417	0.491	-	-17.7	30	103	-.01
1,1,1-trichloroethane	0.221	0.244	-	-10.4	30	114	-.02
1,1-dichloropropene	0.222	0.228	-	-2.7	30	101	-.01
benzene	0.536	0.555	-	-3.5	30	98	-.01
carbon tetrachloride	0.147	0.209	-	-42.2*	30	138	-.01
cyclohexane	0.285	0.323	-	-13.3	30	102	-.01
tert-amyl methyl ether	0.434	0.466	-	-7.4	30	96	-.01
dibromomethane	0.135	0.136	-	-0.7	30	96	-.02
1,2-dichloropropane	0.158	0.2	-	-26.6	30	114	-.02
bromodichloromethane	0.23	0.28	-	-21.7	30	116	-.01
1,4-dioxane	0.121	0.126	-	-4.1	30	95	-.01
trichloroethene	0.18	0.192	-	-6.7	30	96	-.01
2,2,4-trimethylpentane	0.798	0.941	-	-17.9	30	104	-.01
methyl methacrylate	0.155	0.227	-	-46.5*	30	131	-.01
heptane	0.288	0.351	-	-21.9	30	114	-.01
cis-1,3-dichloropropene	0.215	0.287	-	-33.5*	30	115	-.01
4-methyl-2-pentanone	0.327	0.428	-	-30.9*	30	119	-.01
trans-1,3-dichloropropene	0.186	0.227	-	-22	30	105	-.01
1,1,2-trichloroethane	0.178	0.206	-	-15.7	30	104	-.01
chlorobenzene-D5	1	1	-	0	30	129	-.01
toluene	5.752	4.505	-	21.7	30	101	-.01
1,3-dichloropropane	2.557	1.928	-	24.6	30	95	-.01
2-hexanone	2.853	2.807	-	1.6	30	125	-.01
dibromochloromethane	1.745	1.543	-	11.6	30	107	-.01
1,2-dibromoethane	2.305	2.022	-	12.3	30	102	-.01
butyl acetate	0.722	0.604	-	16.3	30	97	-.01
octane	2.309	1.702	-	26.3	30	89	-.01
tetrachloroethene	1.918	1.398	-	27.1	30	90	-.01
1,1,1,2-tetrachloroethane	1.235	1.072	-	13.2	30	99	-.01
chlorobenzene	4.239	3.595	-	15.2	30	100	-.01
ethylbenzene	6.573	5.767	-	12.3	30	107	-.02
m+p-xylene	5.157	4.624	-	10.3	30	115	-.01
bromoform	1.302	1.125	-	13.6	30	95	-.01
styrene	4.505	3.78	-	16.1	30	103	-.01
1,1,2,2-tetrachloroethane	3.425	3.078	-	10.1	30	109	-.01
o-xylene	5.056	4.556	-	9.9	30	117	-.01
1,2,3-trichloropropane	2.947	2.204	-	25.2	30	102	-.01
nonane	3.776	3.321	-	12	30	118	-.01
isopropylbenzene	7.143	5.499	-	23	30	99	-.01
bromobenzene	3.92	3	-	23.5	30	102	-.01
2-chlorotoluene	2.042	1.453	-	28.8	30	88	-.01
n-propylbenzene	2.42	1.831	-	24.3	30	92	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Air Volatiles

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Instrument ID : AIRLAB20	Calibration Date : 12/21/22 13:55
Lab File ID : R204327	Init. Calib. Date(s) : 12/14/22 12/14/22
Sample No : WG1726244-2	Init. Calib. Times : 03:03 10:33
Channel :	

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4-chlorotoluene	1.977	1.355	-	31.5*	30	91	-.01
4-ethyl toluene	7.649	5.871	-	23.2	30	103	-.01
1,3,5-trimethylbenzene	6.175	5.065	-	18	30	111	-.01
tert-butylbenzene	6.227	4.768	-	23.4	30	105	-.01
1,2,4-trimethylbenzene	5.766	4.989	-	13.5	30	121	0
decane	4.827	3.786	-	21.6	30	104	-.01
Benzyl Chloride	2.778	2.657	-	4.4	30	108	-.01
1,3-dichlorobenzene	3.233	2.371	-	26.7	30	99	-.01
1,4-dichlorobenzene	3.289	2.418	-	26.5	30	102	-.01
sec-butylbenzene	8.673	6.242	-	28	30	103	-.01
p-isopropyltoluene	7.138	5.264	-	26.3	30	105	0
1,2-dichlorobenzene	3.068	2.295	-	25.2	30	108	-.01
n-butylbenzene	6.528	5.043	-	22.7	30	113	0
1,2-dibromo-3-chloropropan	1.077	1.17	-	-8.6	30	146	-.01
undecane	5.235	4.362	-	16.7	30	111	0
dodecane	4.978	4.624	-	7.1	30	115	-.02
1,2,4-trichlorobenzene	2.735	2.081	-	23.9	30	103	-.02
naphthalene	7.256	5.86	-	19.2	30	107	-.02
1,2,3-trichlorobenzene	2.624	1.813	-	30.9*	30	91	-.02
hexachlorobutadiene	2.397	1.813	-	24.4	30	113	-.02

\* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	bromochloromethane	1.000	1.000	0.0	104	-0.01
2	chlorodifluoromethane	0.845	0.638	24.5	79	0.00
3	propylene	0.390	0.446	-14.4	126	-0.01
4	propane	0.286	0.334	-16.8	130	-0.01
5	dichlorodifluoromethane	0.674	0.659	2.2	138	-0.01
6 C	chloromethane	0.276	0.322	-16.7	131	-0.01
7	Freon-114	0.896	0.812	9.4	102	-0.02
8 C	methanol	0.115	0.135	-17.4	133	-0.02
9 C	vinyl chloride	0.368	0.362	1.6	113	0.00
10 C	1,3-butadiene	0.273	0.261	4.4	111	-0.02
11	butane	0.493	0.461	6.5	116	-0.01
13 C	bromomethane	0.271	0.218	19.6	96	0.00
14 C	chloroethane	0.147	0.147	0.0	116	-0.01
15	ethanol	0.120	0.154	-28.3	145#	-0.02
16	dichlorofluoromethane	0.492	0.432	12.2	99	-0.02
17 C	vinyl bromide	0.264	0.188	28.8	86	-0.01
18 C	acrolein	0.116	0.103	11.2	107	-0.01
19	acetone	0.270	0.306	-13.3	130	-0.02
20 C	acetonitrile	0.230	0.223	3.0	110	-0.01
21	trichlorofluoromethane	0.350	0.417	-19.1	146#	-0.01
22	isopropyl alcohol	0.404	0.395	2.2	117	-0.02
23 C	acrylonitrile	0.211	0.198	6.2	113	-0.01
24	pentane	0.536	0.448	16.4	88	-0.01
25	ethyl ether	0.306	0.364	-19.0	134	-0.01
26 C	1,1-dichloroethene	0.605	0.712	-17.7	126	-0.02
27	tertiary butyl alcohol	0.800	0.844	-5.5	100	-0.02
28 C	methylene chloride	0.566	0.561	0.9	110	-0.02
29 C	3-chloropropene	0.714	0.787	-10.2	115	-0.01
30 C	carbon disulfide	1.692	1.369	19.1	85	-0.02
31	Freon 113	0.931	0.903	3.0	102	-0.02
32	trans-1,2-dichloroethene	0.773	0.730	5.6	103	-0.02
33 C	1,1-dichloroethane	0.932	0.984	-5.6	117	-0.01
34 C	MTBE	1.463	1.361	7.0	103	-0.02
35 C	vinyl acetate	0.935	0.897	4.1	103	-0.01
36 C	2-butanone	1.084	1.093	-0.8	112	-0.01
37	cis-1,2-dichloroethene	0.674	0.744	-10.4	121	-0.01
38	Ethyl Acetate	0.168	0.182	-8.3	102	-0.01
39 C	chloroform	0.872	0.911	-4.5	114	-0.01
40	Tetrahydrofuran	0.721	0.732	-1.5	109	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	0.600	0.629	-4.8	107	-0.01
42 C	1,2-dichloroethane	0.507	0.608	-19.9	158#	-0.01
43 I	1,4-difluorobenzene	1.000	1.000	0.0	86	-0.01
44 C	hexane	0.246	0.284	-15.4	100	-0.02
45	diisopropyl ether	0.151	0.153	-1.3	90	-0.02
46	tert-butyl ethyl ether	0.417	0.491	-17.7	103	-0.01
48 C	1,1,1-trichloroethane	0.221	0.244	-10.4	114	-0.02
49	1,1-dichloropropene	0.222	0.228	-2.7	101	-0.01
50 C	benzene	0.536	0.555	-3.5	98	-0.01
52 C	carbon tetrachloride	0.147	0.209	-42.2#	138	-0.01
53	cyclohexane	0.285	0.323	-13.3	102	-0.01
54	tert-amyl methyl ether	0.434	0.466	-7.4	96	-0.01
55	dibromomethane	0.135	0.136	-0.7	96	-0.02
56 C	1,2-dichloropropane	0.158	0.200	-26.6	114	-0.02
57	bromodichloromethane	0.230	0.280	-21.7	116	-0.01
58 C	1,4-dioxane	0.121	0.126	-4.1	95	-0.01
59 C	trichloroethene	0.180	0.192	-6.7	96	-0.01
60 C	2,2,4-trimethylpentane	0.798	0.941	-17.9	104	-0.01
61	methyl methacrylate	0.155	0.227	-46.5#	131	-0.01
62	heptane	0.288	0.351	-21.9	114	-0.01
63 C	cis-1,3-dichloropropene	0.215	0.287	-33.5#	115	-0.01
64 C	4-methyl-2-pentanone	0.327	0.428	-30.9#	119	-0.01
65	trans-1,3-dichloropropene	0.186	0.227	-22.0	105	-0.01
66 C	1,1,2-trichloroethane	0.178	0.206	-15.7	104	-0.01
67 I	chlorobenzene-D5	1.000	1.000	0.0	129	-0.01
68 C	toluene	5.752	4.505	21.7	101	-0.01
71	1,3-dichloropropane	2.557	1.928	24.6	95	-0.01
72	2-hexanone	2.853	2.807	1.6	125	-0.01
74	dibromochloromethane	1.745	1.543	11.6	107	-0.01
75 C	1,2-dibromoethane	2.305	2.022	12.3	102	-0.01
76	butyl acetate	0.722	0.604	16.3	97	-0.01
77	octane	2.309	1.702	26.3	89	-0.01
78 C	tetrachloroethene	1.918	1.398	27.1	90	-0.01
79	1,1,1,2-tetrachloroethane	1.235	1.072	13.2	99	-0.01
80 C	chlorobenzene	4.239	3.595	15.2	100	-0.01
81 C	ethylbenzene	6.573	5.767	12.3	107	-0.02
83 C	m+p-xylene	5.157	4.624	10.3	115	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84 C	bromoform	1.302	1.125	13.6	95	-0.01
85 C	styrene	4.505	3.780	16.1	103	-0.01
86 C	1,1,2,2-tetrachloroethane	3.425	3.078	10.1	109	-0.01
87 C	o-xylene	5.056	4.556	9.9	117	-0.01
88	1,2,3-trichloropropane	2.947	2.204	25.2	102	-0.01
89	nonane	3.776	3.321	12.0	118	-0.01
91 C	isopropylbenzene	7.143	5.499	23.0	99	-0.01
92	bromobenzene	3.920	3.000	23.5	102	-0.01
93	2-chlorotoluene	2.042	1.453	28.8	88	-0.01
94	n-propylbenzene	2.420	1.831	24.3	92	0.00
95	4-chlorotoluene	1.977	1.355	31.5#	91	-0.01
96	4-ethyl toluene	7.649	5.871	23.2	103	-0.01
97	1,3,5-trimethylbenzene	6.175	5.065	18.0	111	-0.01
98	tert-butylbenzene	6.227	4.768	23.4	105	-0.01
99	1,2,4-trimethylbenzene	5.766	4.989	13.5	121	0.00
100	decane	4.827	3.786	21.6	104	-0.01
101 C	Benzyl Chloride	2.778	2.657	4.4	108	-0.01
102	1,3-dichlorobenzene	3.233	2.371	26.7	99	-0.01
103 C	1,4-dichlorobenzene	3.289	2.418	26.5	102	-0.01
104	sec-butylbenzene	8.673	6.242	28.0	103	-0.01
106	p-isopropyltoluene	7.138	5.264	26.3	105	0.00
107	1,2-dichlorobenzene	3.068	2.295	25.2	108	-0.01
108	n-butylbenzene	6.528	5.043	22.7	113	0.00
111 C	1,2-dibromo-3-chloropropane	1.077	1.170	-8.6	146#	-0.01
112	undecane	5.235	4.362	16.7	111	0.00
114	dodecane	4.978	4.624	7.1	115	-0.02
115 C	1,2,4-trichlorobenzene	2.735	2.081	23.9	103	-0.02
116	naphthalene	7.256	5.860	19.2	107	-0.02
117	1,2,3-trichlorobenzene	2.624	1.813	30.9#	91	-0.02
119 C	hexachlorobutadiene	2.397	1.813	24.4	113	-0.02

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 3

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	4.37	49	367526	10.000	ppbV	-0.01
Standard Area =	367526		Recovery =	100.00%		
43) 1,4-difluorobenzene	5.29	114	1206052	10.000	ppbV	-0.01
Standard Area =	1206052		Recovery =	100.00%		
67) chlorobenzene-D5	7.28	54	171983	10.000	ppbV	#-0.01
Standard Area =	171983		Recovery =	100.00%		

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) chlorodifluoromethane	2.12	51	234634	7.553	ppbV	94
3) propylene	2.13	41	163742M6	11.411	ppbV	
4) propane	2.15	29	122591	11.670	ppbV	90
5) dichlorodifluoromethane	2.17	85	242202	9.782	ppbV	98
6) chloromethane	2.28	50	118472	11.694	ppbV	99
7) Freon-114	2.34	85	298395	9.057	ppbV	92
8) methanol	2.36	31	247644	58.761	ppbV #	79
9) vinyl chloride	2.41	62	133065	9.828	ppbV	98
10) 1,3-butadiene	2.48	54	95850	9.567	ppbV	90
11) butane	2.50	43	169422	9.357	ppbV	95
13) bromomethane	2.60	94	80208	8.062	ppbV	97
14) chloroethane	2.67	64	53897	9.995	ppbV	98
15) ethanol	2.71	31	282586	64.166	ppbV #	75
16) dichlorofluoromethane	2.71	67	158625	8.765	ppbV	97
17) vinyl bromide	2.82	106	69103	7.132	ppbV	99
18) acrolein	2.87	56	37815	8.884	ppbV #	94
19) acetone	2.92	43	562517	56.697	ppbV	90
20) acetonitrile	2.81	41	81982	9.690	ppbV	99
21) trichlorofluoromethane	3.01	101	153143	11.891	ppbV	97
22) isopropyl alcohol	3.03	45	363391	24.480	ppbV	99
23) acrylonitrile	3.14	53	72912	9.400	ppbV	99
24) pentane	3.17	43	164651	8.355	ppbV	96
25) ethyl ether	3.18	31	133640	11.871	ppbV	88
26) 1,1-dichloroethene	3.30	61	261837	11.779	ppbV	90
27) tertiary butyl alcohol	3.31	59	310028	10.541	ppbV	99
28) methylene chloride	3.36	49	206144	9.907	ppbV	95
29) 3-chloropropene	3.41	41	289168	11.013	ppbV	94
30) carbon disulfide	3.50	76	503008	8.091	ppbV	100
31) Freon 113	3.48	101	331983	9.700	ppbV	91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	3.80	61	268237	9.447	ppbV	91
33) 1,1-dichloroethane	3.90	63	361653	10.556	ppbV	98
34) MTBE	3.92	73	500203	9.301	ppbV	97
35) vinyl acetate	3.96	43	329782	9.592	ppbV	99
36) 2-butanone	4.08	43	401542	10.078	ppbV	98
37) cis-1,2-dichloroethene	4.29	61	273526	11.046	ppbV	88
38) Ethyl Acetate	4.39	61	67046	10.862	ppbV	81
39) chloroform	4.43	83	334647	10.445	ppbV	100
40) Tetrahydrofuran	4.62	42	269026	10.155	ppbV	99
41) 2,2-dichloropropane	4.45	77	231351	10.487	ppbV #	83
42) 1,2-dichloroethane	4.79	62	223460	11.983	ppbV	96
44) hexane	4.39	57	342523	11.552	ppbV	95
45) diisopropyl ether	4.39	87	184161	10.101	ppbV	86
46) tert-butyl ethyl ether	4.65	59	592100	11.767	ppbV	96
48) 1,1,1-trichloroethane	4.91	97	294037	11.019	ppbV	93
49) 1,1-dichloropropene	5.06	75	274916	10.283	ppbV	90
50) benzene	5.13	78	669783	10.352	ppbV	98
52) carbon tetrachloride	5.20	117	252633	14.289	ppbV	99
53) cyclohexane	5.26	56	389284	11.345	ppbV	94
54) tert-amyl methyl ether	5.41	73	561701	10.734	ppbV	99
55) dibromomethane	5.50	93	163799	10.076	ppbV	92
56) 1,2-dichloropropane	5.51	63	240850	12.640	ppbV	97
57) bromodichloromethane	5.61	83	337289	12.182	ppbV	98
58) 1,4-dioxane	5.62	88	151735	10.436	ppbV	88
59) trichloroethene	5.63	130	231286	10.676	ppbV	97
60) 2,2,4-trimethylpentane	5.65	57	1135089	11.794	ppbV #	96
61) methyl methacrylate	5.71	41	273380	14.588	ppbV	96
62) heptane	5.77	43	422735	12.173	ppbV	91
63) cis-1,3-dichloropropene	6.02	75	345911	13.352	ppbV	97
64) 4-methyl-2-pentanone	6.03	43	515762	13.065	ppbV	94
65) trans-1,3-dichloropropene	6.26	75	273248	12.192	ppbV	92
66) 1,1,2-trichloroethane	6.34	97	248131	11.538	ppbV	89
68) toluene	6.47	91	774803	7.832	ppbV	99
71) 1,3-dichloropropane	6.48	76	331566	7.541	ppbV	97
72) 2-hexanone	6.58	43	482736	9.837	ppbV #	93
74) dibromochloromethane	6.66	129	265362	8.840	ppbV	99
75) 1,2-dibromoethane	6.77	107	347741	8.772	ppbV	99
76) butyl acetate	6.87	73	103949	8.367	ppbV	87
77) octane	6.91	85	292744	7.371	ppbV	90
78) tetrachloroethene	6.99	166	240375	7.286	ppbV #	85

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-2,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	7.29	131	184423	8.684	ppbV	96
80) chlorobenzene	7.30	112	618239	8.479	ppbV	95
81) ethylbenzene	7.46	91	991772	8.773	ppbV	99
83) m+p-xylene	7.55	91	1590537	17.934	ppbV	96
84) bromoform	7.59	173	193395	8.635	ppbV	98
85) styrene	7.72	104	650063	8.391	ppbV	95
86) 1,1,2,2-tetrachloroethane	7.76	83	529348	8.987	ppbV	99
87) o-xylene	7.77	91	783539	9.011	ppbV	91
88) 1,2,3-trichloropropane	7.82	75	379049	7.478	ppbV #	97
89) nonane	7.86	43	571086	8.795	ppbV	91
91) isopropylbenzene	8.05	105	945687	7.698	ppbV	99
92) bromobenzene	8.10	77	516021	7.655	ppbV #	83
93) 2-chlorotoluene	8.28	126	249858	7.113	ppbV	76
94) n-propylbenzene	8.30	120	314962	7.567	ppbV	93
95) 4-chlorotoluene	8.32	126	233052	6.855	ppbV	87
96) 4-ethyl toluene	8.38	105	1009652	7.675	ppbV	99
97) 1,3,5-trimethylbenzene	8.41	105	871054	8.202	ppbV	98
98) tert-butylbenzene	8.62	119	820066	7.658	ppbV	93
99) 1,2,4-trimethylbenzene	8.63	105	858049	8.653	ppbV	99
100) decane	8.67	57	651094	7.843	ppbV #	90
101) Benzyl Chloride	8.70	91	457026	9.566	ppbV	91
102) 1,3-dichlorobenzene	8.71	146	407850	7.335	ppbV #	81
103) 1,4-dichlorobenzene	8.74	146	415936	7.352	ppbV #	84
104) sec-butylbenzene	8.76	105	1073546	7.198	ppbV	97
106) p-isopropyltoluene	8.85	119	905318	7.374	ppbV	97
107) 1,2-dichlorobenzene	8.92	146	394786	7.483	ppbV #	85
108) n-butylbenzene	9.07	91	867371	7.726	ppbV	91
111) 1,2-dibromo-3-chloropr...	9.16	75	201278	10.872	ppbV #	75
112) undecane	9.34	57	750132	8.332	ppbV #	91
114) dodecane	9.88	57	795219	9.289	ppbV	92
115) 1,2,4-trichlorobenzene	9.82	180	357908	7.610	ppbV #	89
116) naphthalene	9.88	128	1007833	8.077	ppbV	97
117) 1,2,3-trichlorobenzene	10.02	180	311799	6.909	ppbV #	88
119) hexachlorobutadiene	10.06	225	311848	7.564	ppbV #	93

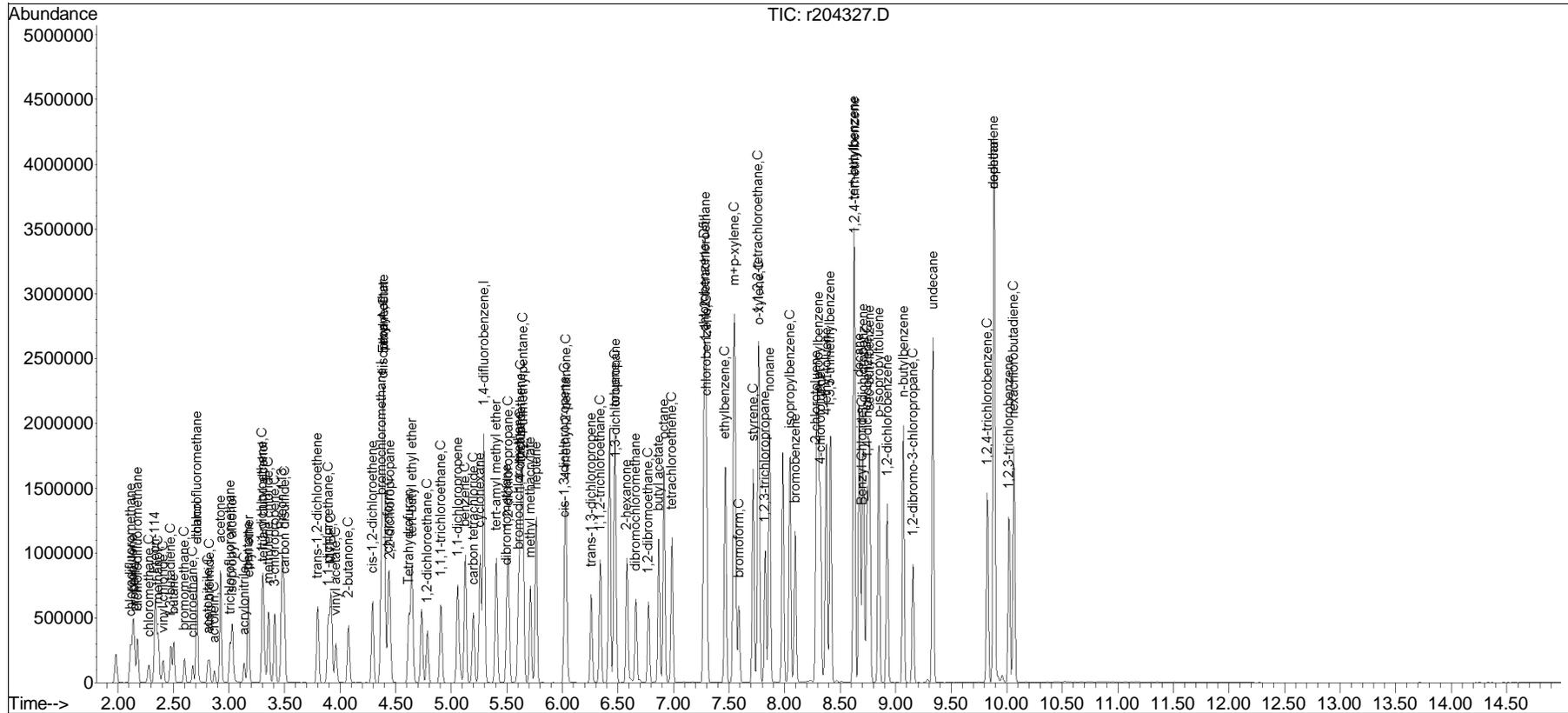
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WG1726244-2,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

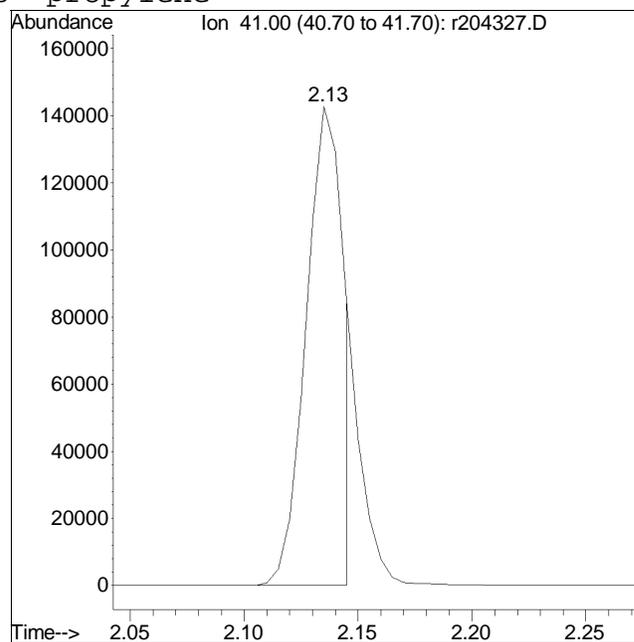
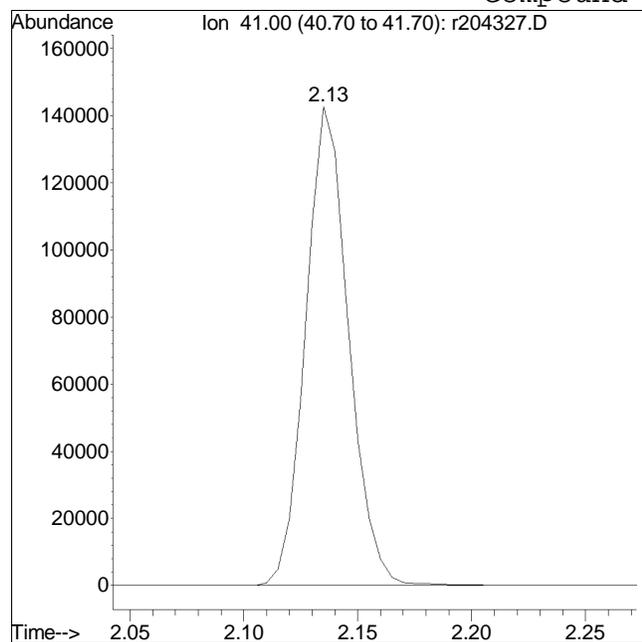
Sub List : Default-LCS-AP2 - All compounds listed1T\r204327.D



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204327.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:1: 5 Instrument :  
Sample : WG1726244-2,3,250,250 Quant Date : 12/21/2022 2:35 pm

Compound #3: propylene



Original Peak Response = 186992

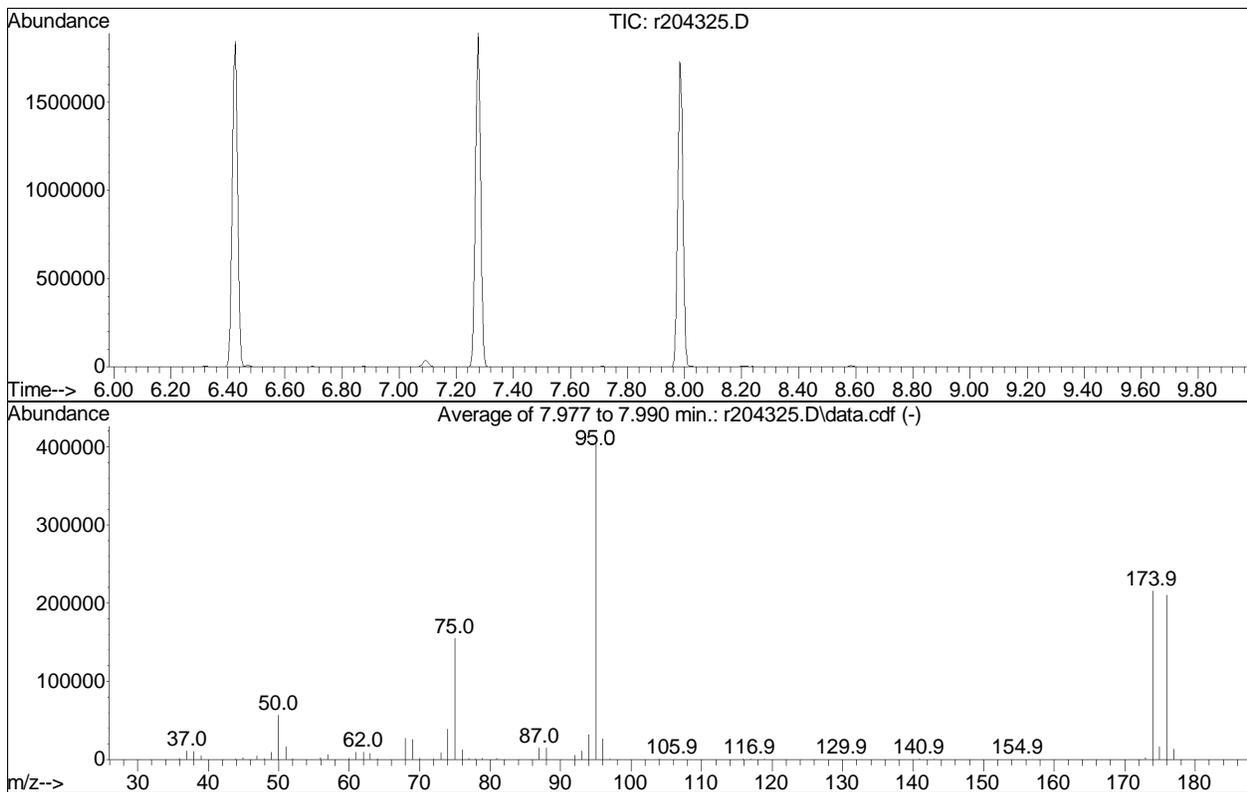
Manual Peak Response = 163742 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204325.D  
 Acq On : 21 Dec 2022 12:45 PM  
 Operator : AIRLAB20:RAY  
 Sample : WG1726244-1,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 Last Update : Wed Dec 14 15:40:05 2022



Spectrum Information: Average of 7.977 to 7.990 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.9	56598	PASS
75	95	30	66	38.2	155271	PASS
95	95	100	100	100.0	406121	PASS
96	95	5	9	6.6	27000	PASS
173	174	0.00	2	0.9	1993	PASS
174	95	50	120	53.2	216178	PASS
175	174	4	9	7.7	16748	PASS
176	174	93	101	97.3	210420	PASS
177	176	5	9	6.5	13696	PASS

# **Volatiles Raw QC Data**

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204329.D  
 Acq On : 21 Dec 2022 3:56 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-4,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 07:44:51 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	4.37	49	345692	10.000	ppbV	-0.02
Standard Area = 367526			Recovery =		94.06%	
43) 1,4-difluorobenzene	5.29	114	1152654	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		95.57%	
67) chlorobenzene-D5	7.28	54	166571	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		96.85%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	0.00		0		N.D.	
33) 1,1-dichloroethane	0.00		0		N.D.	
37) cis-1,2-dichloroethene	0.00		0		N.D.	
42) 1,2-dichloroethane	0.00		0		N.D.	
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	0.00		0		N.D.	

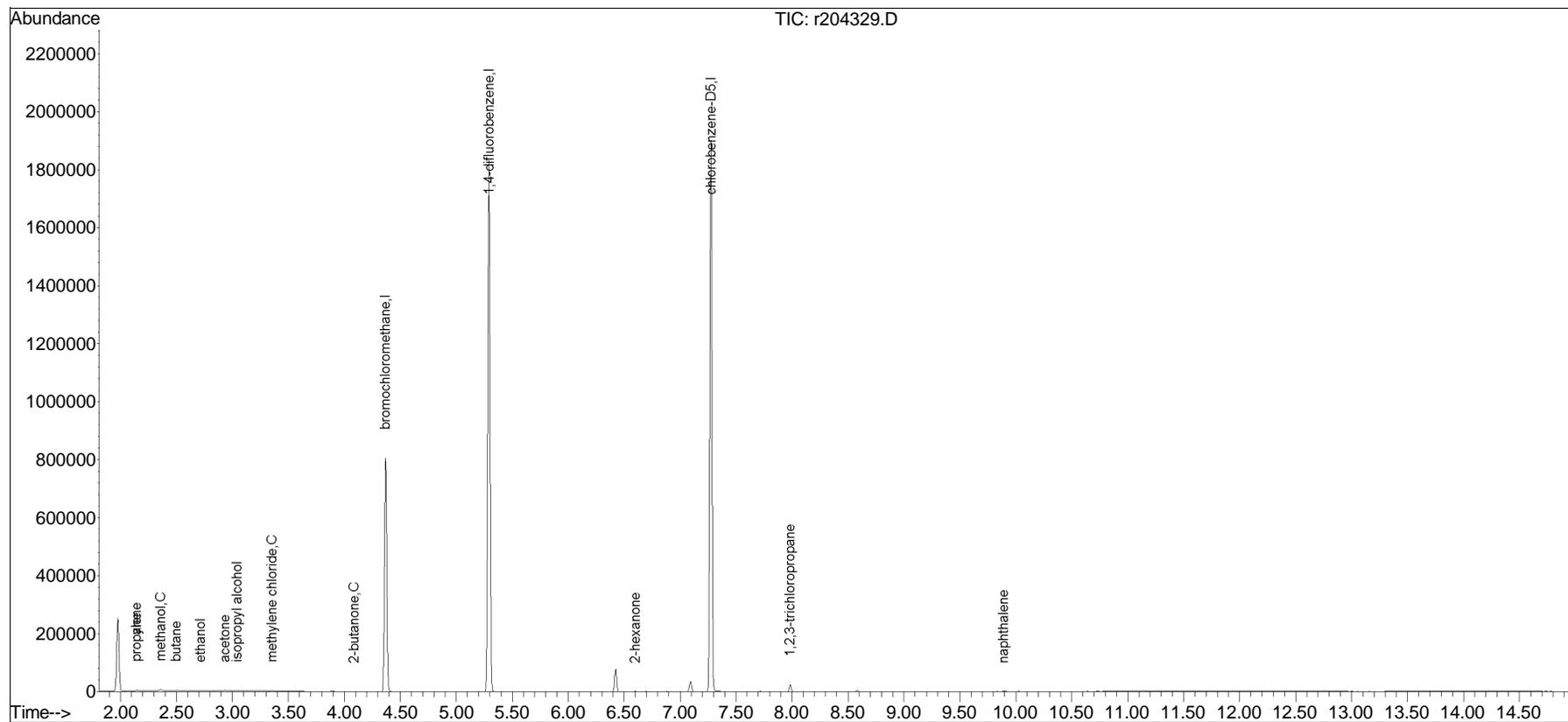
-----  
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204329.D  
Acq On : 21 Dec 2022 3:56 PM  
Operator : AIRLAB20:RAY  
Sample : WG1726244-4,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 07:44:51 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed1T\r204327.D



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204329.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:3: 6 Instrument :  
Sample : WG1726244-4,3,250,250 Quant Date : 12/21/2022 4:56 pm

There are no manual integrations or false positives in this file.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-3,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	bromochloromethane	10.000	10.000	0.0	104	-0.01
2	chlorodifluoromethane	10.000	7.553	24.5	79	0.00
3	propylene	10.000	11.411	-14.1	126	-0.01
4	propane	10.000	11.670	-16.7	130	-0.01
5	dichlorodifluoromethane	10.000	9.782	2.2	138	-0.01
6 C	chloromethane	10.000	11.694	-16.9	131	-0.01
7	Freon-114	10.000	9.057	9.4	102	-0.02
8 C	methanol	50.000	58.761	-17.5	133	-0.02
9 C	vinyl chloride	10.000	9.828	1.7	113	0.00
10 C	1,3-butadiene	10.000	9.567	4.3	111	-0.02
11	butane	10.000	9.357	6.4	116	-0.01
13 C	bromomethane	10.000	8.062	19.4	96	0.00
14 C	chloroethane	10.000	9.995	0.1	116	-0.01
15	ethanol	50.000	64.166	-28.3	145	-0.02
16	dichlorofluoromethane	10.000	8.765	12.3	99	-0.02
17 C	vinyl bromide	10.000	7.132	28.7	86	-0.01
18 C	acrolein	10.000	8.884	11.2	107	-0.01
19	acetone	50.000	56.697	-13.4	130	-0.02
20 C	acetonitrile	10.000	9.690	3.1	110	-0.01
21	trichlorofluoromethane	10.000	11.891	-18.9	146	-0.01
22	isopropyl alcohol	25.000	24.480	2.1	117	-0.02
23 C	acrylonitrile	10.000	9.400	6.0	113	-0.01
24	pentane	10.000	8.355	16.4	88	-0.01
25	ethyl ether	10.000	11.871	-18.7	134	-0.01
26 C	1,1-dichloroethene	10.000	11.779	-17.8	126	-0.02
27	tertiary butyl alcohol	10.000	10.541	-5.4	100	-0.02
28 C	methylene chloride	10.000	9.907	0.9	110	-0.02
29 C	3-chloropropene	10.000	11.013	-10.1	115	-0.01
30 C	carbon disulfide	10.000	8.091	19.1	85	-0.02
31	Freon 113	10.000	9.700	3.0	102	-0.02
32	trans-1,2-dichloroethene	10.000	9.447	5.5	103	-0.02
33 C	1,1-dichloroethane	10.000	10.556	-5.6	117	-0.01
34 C	MTBE	10.000	9.301	7.0	103	-0.02
35 C	vinyl acetate	10.000	9.592	4.1	103	-0.01
36 C	2-butanone	10.000	10.078	-0.8	112	-0.01
37	cis-1,2-dichloroethene	10.000	11.046	-10.5	121	-0.01
38	Ethyl Acetate	10.000	10.862	-8.6	102	-0.01
39 C	chloroform	10.000	10.445	-4.5	114	-0.01
40	Tetrahydrofuran	10.000	10.155	-1.5	109	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-3,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41	2,2-dichloropropane	10.000	10.487	-4.9	107	-0.01
42 C	1,2-dichloroethane	10.000	11.983	-19.8	158	-0.01
43 I	1,4-difluorobenzene	10.000	10.000	0.0	86	-0.01
44 C	hexane	10.000	11.552	-15.5	100	-0.02
45	diisopropyl ether	10.000	10.101	-1.0	90	-0.02
46	tert-butyl ethyl ether	10.000	11.767	-17.7	103	-0.01
48 C	1,1,1-trichloroethane	10.000	11.019	-10.2	114	-0.02
49	1,1-dichloropropene	10.000	10.283	-2.8	101	-0.01
50 C	benzene	10.000	10.352	-3.5	98	-0.01
52 C	carbon tetrachloride	10.000	14.289	-42.9#	138	-0.01
53	cyclohexane	10.000	11.345	-13.5	102	-0.01
54	tert-amyl methyl ether	10.000	10.734	-7.3	96	-0.01
55	dibromomethane	10.000	10.076	-0.8	96	-0.02
56 C	1,2-dichloropropane	10.000	12.640	-26.4	114	-0.02
57	bromodichloromethane	10.000	12.182	-21.8	116	-0.01
58 C	1,4-dioxane	10.000	10.436	-4.4	95	-0.01
59 C	trichloroethene	10.000	10.676	-6.8	96	-0.01
60 C	2,2,4-trimethylpentane	10.000	11.794	-17.9	104	-0.01
61	methyl methacrylate	10.000	14.588	-45.9#	131	-0.01
62	heptane	10.000	12.173	-21.7	114	-0.01
63 C	cis-1,3-dichloropropene	10.000	13.352	-33.5#	115	-0.01
64 C	4-methyl-2-pentanone	10.000	13.065	-30.6#	119	-0.01
65	trans-1,3-dichloropropene	10.000	12.192	-21.9	105	-0.01
66 C	1,1,2-trichloroethane	10.000	11.538	-15.4	104	-0.01
67 I	chlorobenzene-D5	10.000	10.000	0.0	129	-0.01
68 C	toluene	10.000	7.832	21.7	101	-0.01
71	1,3-dichloropropane	10.000	7.541	24.6	95	-0.01
72	2-hexanone	10.000	9.837	1.6	125	-0.01
74	dibromochloromethane	10.000	8.840	11.6	107	-0.01
75 C	1,2-dibromoethane	10.000	8.772	12.3	102	-0.01
76	butyl acetate	10.000	8.367	16.3	97	-0.01
77	octane	10.000	7.371	26.3	89	-0.01
78 C	tetrachloroethene	10.000	7.286	27.1	90	-0.01
79	1,1,1,2-tetrachloroethane	10.000	8.684	13.2	99	-0.01
80 C	chlorobenzene	10.000	8.479	15.2	100	-0.01
81 C	ethylbenzene	10.000	8.773	12.3	107	-0.02
83 C	m+p-xylene	20.000	17.934	10.3	115	-0.01

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-3,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84 C	bromoform	10.000	8.635	13.7	95	-0.01
85 C	styrene	10.000	8.391	16.1	103	-0.01
86 C	1,1,2,2-tetrachloroethane	10.000	8.987	10.1	109	-0.01
87 C	o-xylene	10.000	9.011	9.9	117	-0.01
88	1,2,3-trichloropropane	10.000	7.478	25.2	102	-0.01
89	nonane	10.000	8.795	12.1	118	-0.01
91 C	isopropylbenzene	10.000	7.698	23.0	99	-0.01
92	bromobenzene	10.000	7.655	23.4	102	-0.01
93	2-chlorotoluene	10.000	7.113	28.9	88	-0.01
94	n-propylbenzene	10.000	7.567	24.3	92	0.00
95	4-chlorotoluene	10.000	6.855	31.4#	91	-0.01
96	4-ethyl toluene	10.000	7.675	23.3	103	-0.01
97	1,3,5-trimethylbenzene	10.000	8.202	18.0	111	-0.01
98	tert-butylbenzene	10.000	7.658	23.4	105	-0.01
99	1,2,4-trimethylbenzene	10.000	8.653	13.5	121	0.00
100	decane	10.000	7.843	21.6	104	-0.01
101 C	Benzyl Chloride	10.000	9.566	4.3	108	-0.01
102	1,3-dichlorobenzene	10.000	7.335	26.7	99	-0.01
103 C	1,4-dichlorobenzene	10.000	7.352	26.5	102	-0.01
104	sec-butylbenzene	10.000	7.198	28.0	103	-0.01
106	p-isopropyltoluene	10.000	7.374	26.3	105	0.00
107	1,2-dichlorobenzene	10.000	7.483	25.2	108	-0.01
108	n-butylbenzene	10.000	7.726	22.7	113	0.00
111 C	1,2-dibromo-3-chloropropane	10.000	10.872	-8.7	146	-0.01
112	undecane	10.000	8.332	16.7	111	0.00
114	dodecane	10.000	9.289	7.1	115	-0.02
115 C	1,2,4-trichlorobenzene	10.000	7.610	23.9	103	-0.02
116	naphthalene	10.000	8.077	19.2	107	-0.02
117	1,2,3-trichlorobenzene	10.000	6.909	30.9#	91	-0.02
119 C	hexachlorobutadiene	10.000	7.564	24.4	113	-0.02

\* Evaluation of CC level amount vs concentration.  
 (#) = Out of Range SPCC's out = 0 CCC's out = 3

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-3,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) bromochloromethane	4.37	49	367526	10.000	ppbV	-0.01
Standard Area =			367526			Recovery = 100.00%
43) 1,4-difluorobenzene	5.29	114	1206052	10.000	ppbV	-0.01
Standard Area =			1206052			Recovery = 100.00%
67) chlorobenzene-D5	7.28	54	171983	10.000	ppbV	#-0.01
Standard Area =			171983			Recovery = 100.00%

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	2.41	62	133065	9.828	ppbV	98
26) 1,1-dichloroethene	3.30	61	261837	11.779	ppbV	90
32) trans-1,2-dichloroethene	3.80	61	268237	9.447	ppbV	91
33) 1,1-dichloroethane	3.90	63	361653	10.556	ppbV	98
37) cis-1,2-dichloroethene	4.29	61	273526	11.046	ppbV	88
42) 1,2-dichloroethane	4.79	62	223460	11.983	ppbV	96
48) 1,1,1-trichloroethane	4.91	97	294037	11.019	ppbV	93
59) trichloroethene	5.63	130	231286	10.676	ppbV	97
78) tetrachloroethene	6.99	166	240375	7.286	ppbV #	85

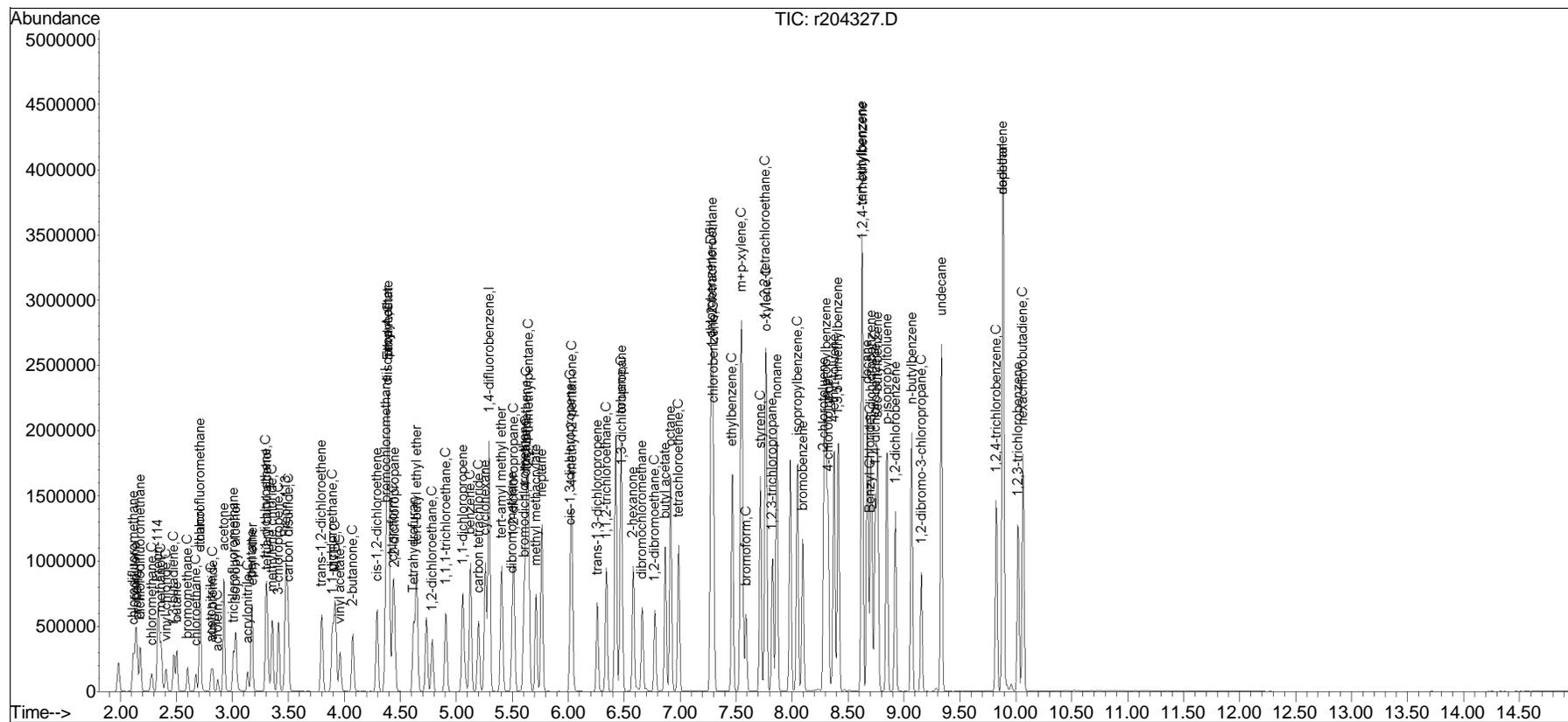
(#) = qualifier out of range (m) = manual integration (+) = signals summed

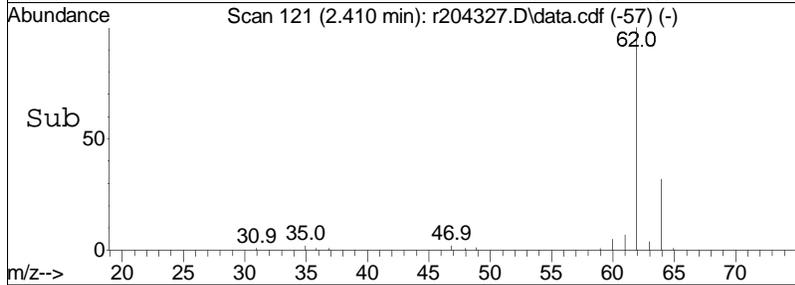
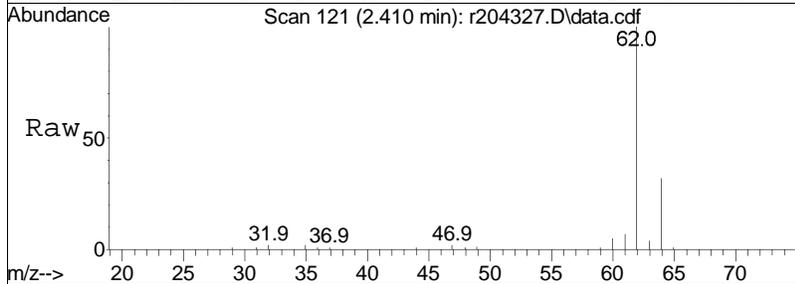
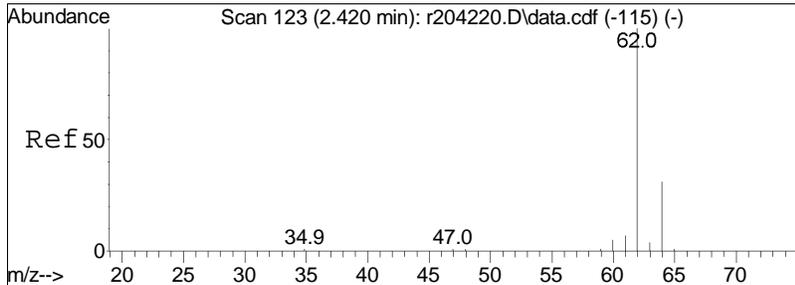
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204327.D  
 Acq On : 21 Dec 2022 1:55 PM  
 Operator : AIRLAB20:RAY  
 Sample : WG1726244-3,3,250,250  
 Misc : WG1726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 21 14:37:13 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

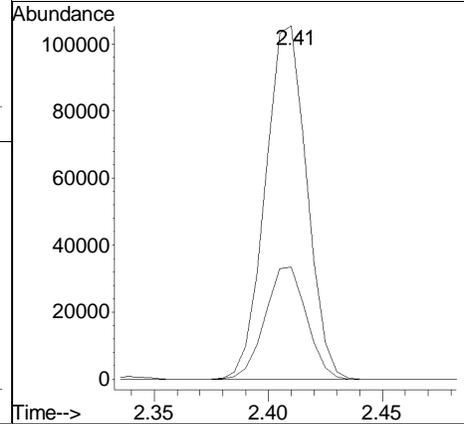
Sub List : Default-LCS-AP2 - All compounds listed1T\r204327.D

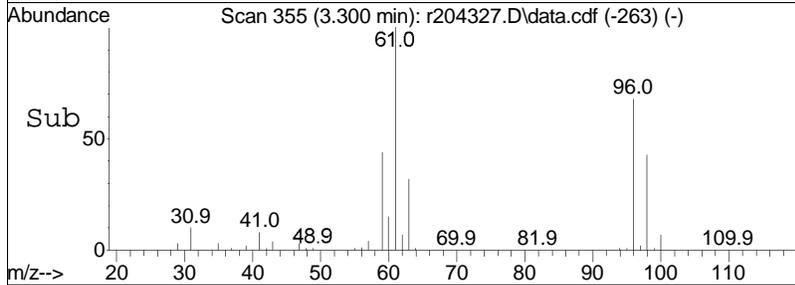
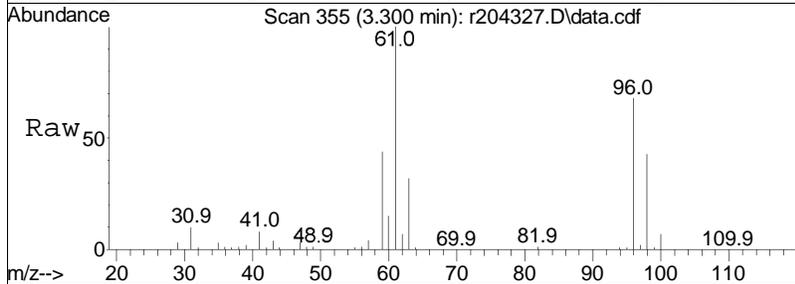
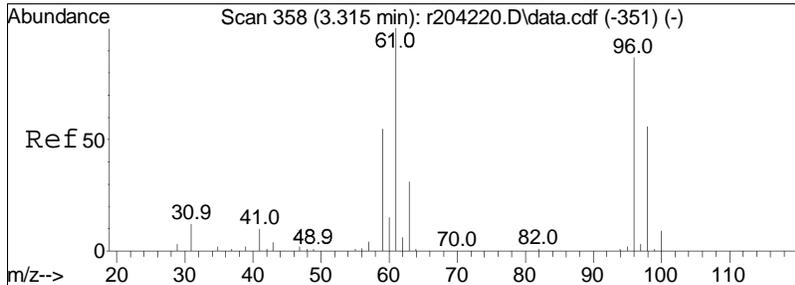




#9  
 vinyl chloride  
 Concen: 9.83 ppbV  
 RT: 2.41 min Scan# 121  
 Delta R.T. -0.010 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

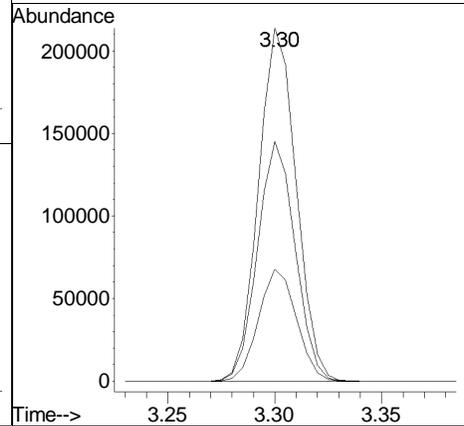
Tgt Ion:	Resp:	Lower	Upper
62	133065		
64	31.7	26.5	39.7

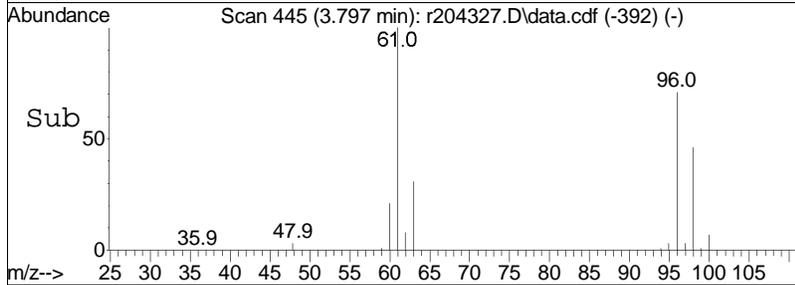
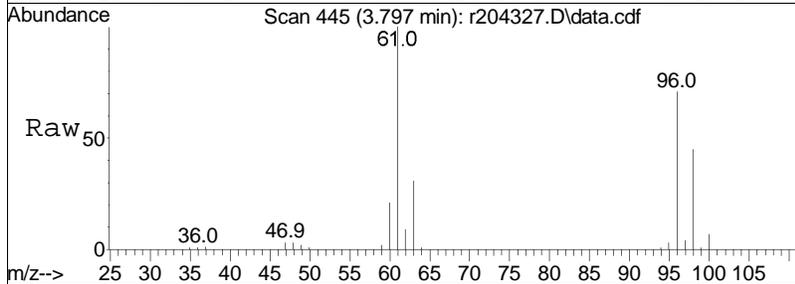
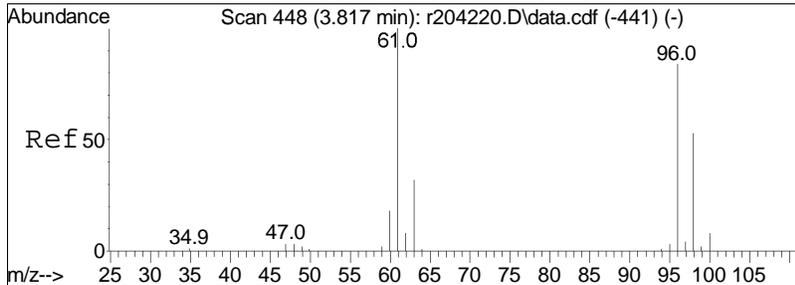




#26  
 1,1-dichloroethene  
 Concen: 11.78 ppbV  
 RT: 3.30 min Scan# 355  
 Delta R.T. -0.015 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

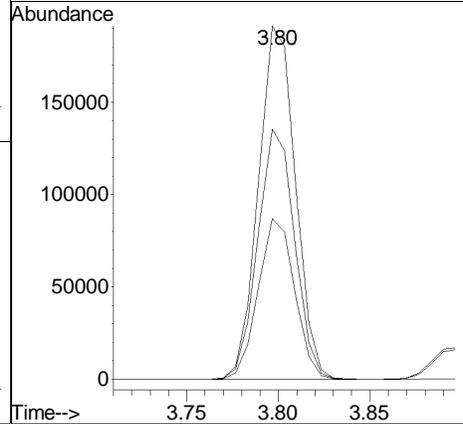
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	67.9	63.8	95.6
63	31.8	26.2	39.4

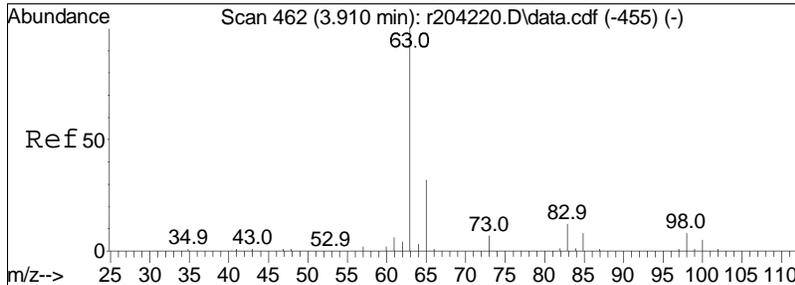




#32  
 trans-1,2-dichloroethene  
 Concen: 9.45 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

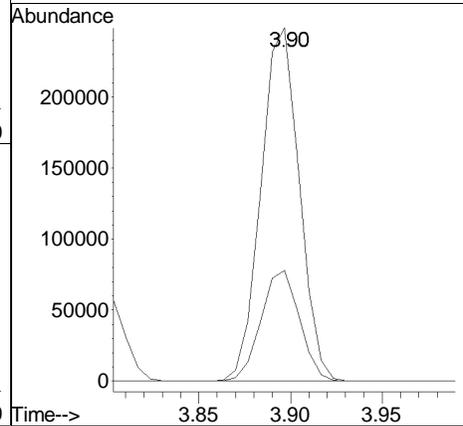
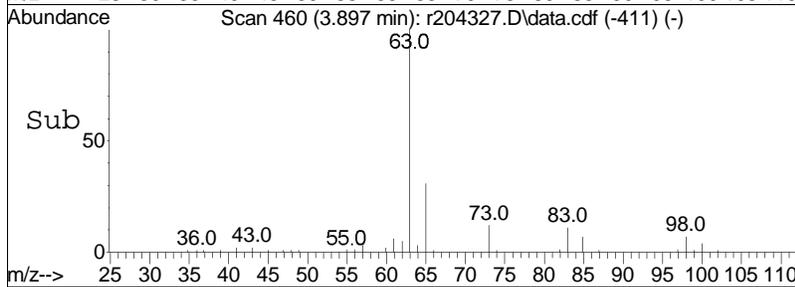
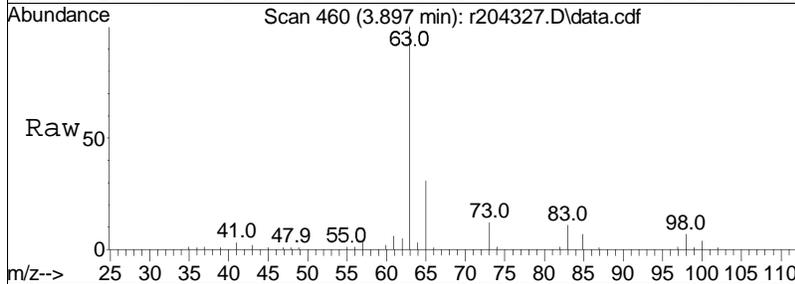
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	70.8	63.7	95.5
98	45.5	40.4	60.6

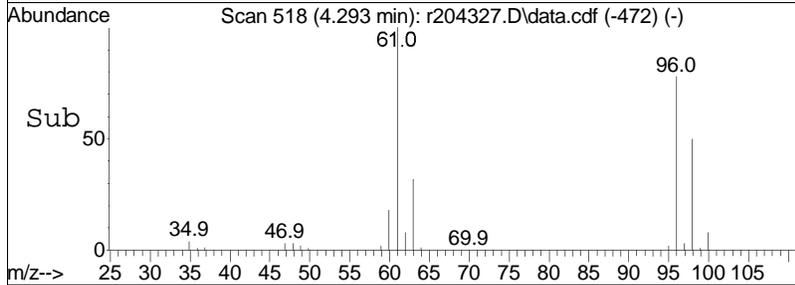
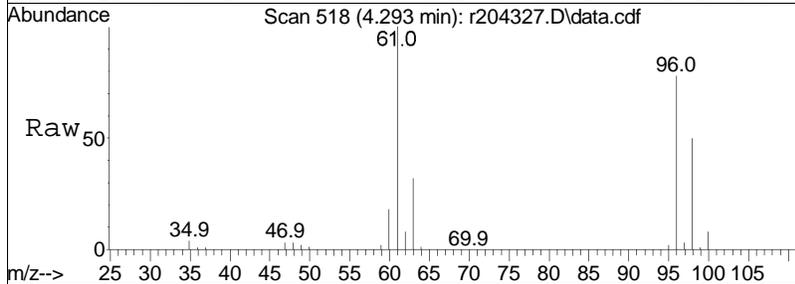
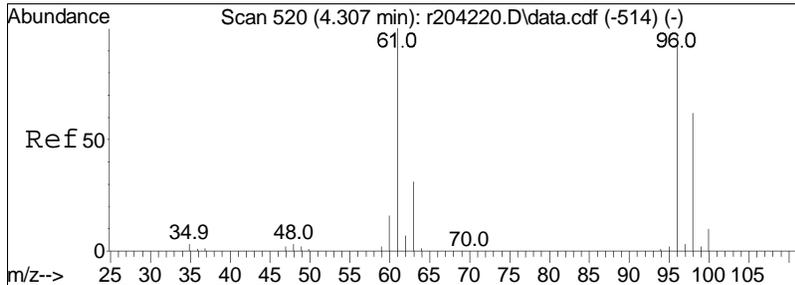




#33  
 1,1-dichloroethane  
 Concen: 10.56 ppbV  
 RT: 3.90 min Scan# 460  
 Delta R.T. -0.013 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

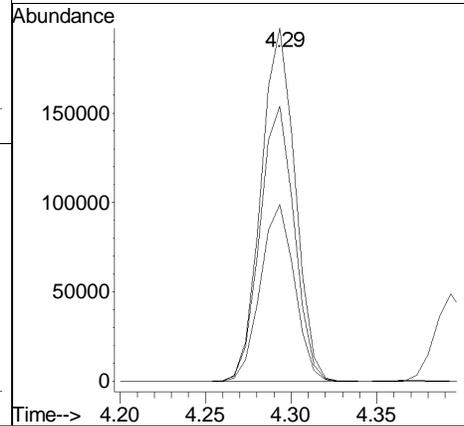
Tgt Ion: 63 Resp: 361653  
 Ion Ratio Lower Upper  
 63 100  
 65 31.3 26.2 39.2

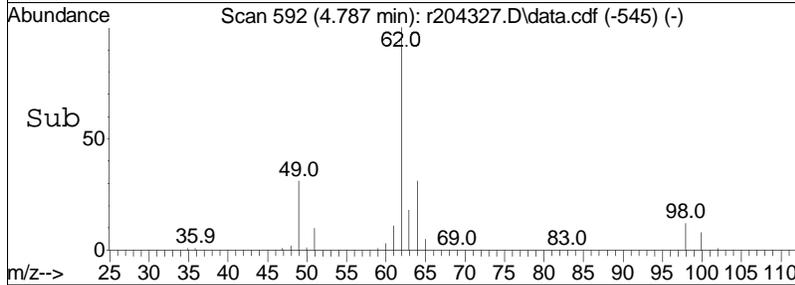
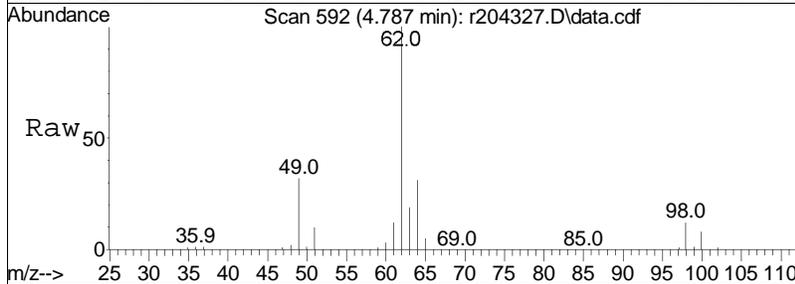
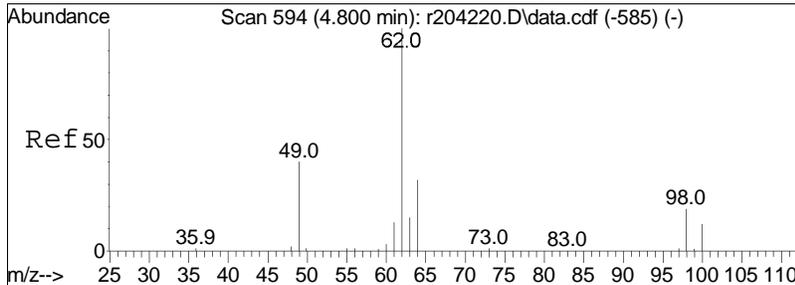




#37  
 cis-1,2-dichloroethene  
 Concen: 11.05 ppbV  
 RT: 4.29 min Scan# 518  
 Delta R.T. -0.013 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

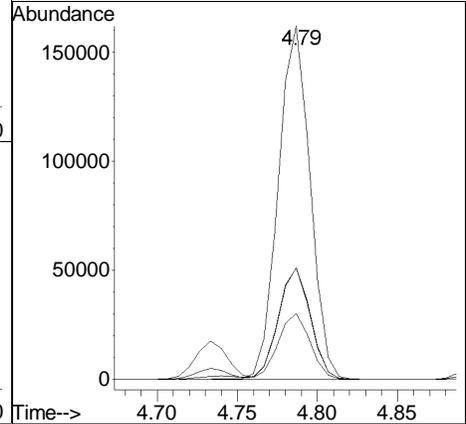
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
61	100		
96	77.9	72.0	108.0
98	50.0	45.5	68.3

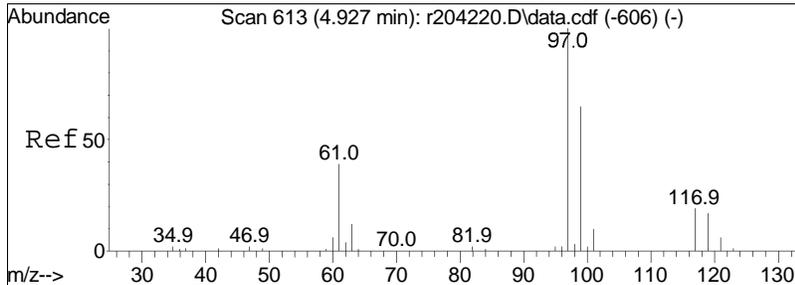




#42  
 1,2-dichloroethane  
 Concen: 11.98 ppbV  
 RT: 4.79 min Scan# 592  
 Delta R.T. -0.013 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

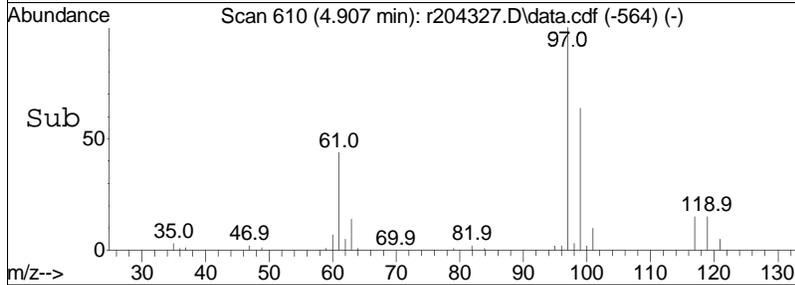
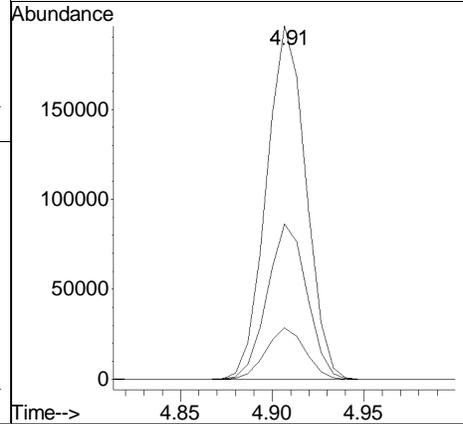
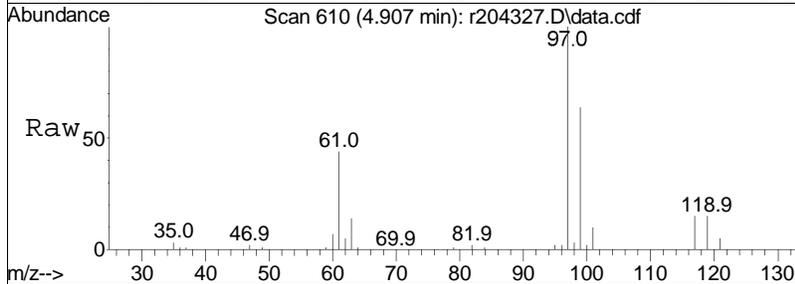
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
62	100		
64	31.5	27.0	40.6
49	31.6	27.2	40.8
63	18.6	16.6	24.8

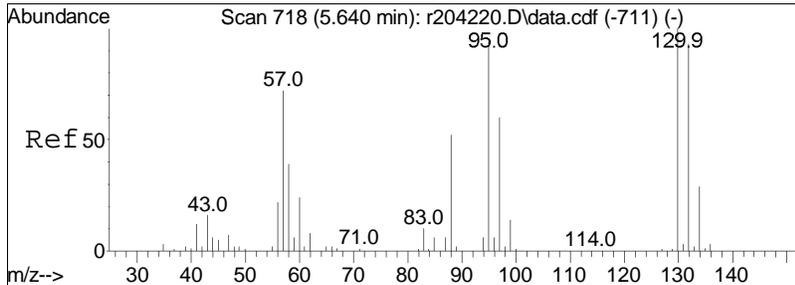




#48  
 1,1,1-trichloroethane  
 Concen: 11.02 ppbV  
 RT: 4.91 min Scan# 610  
 Delta R.T. -0.020 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

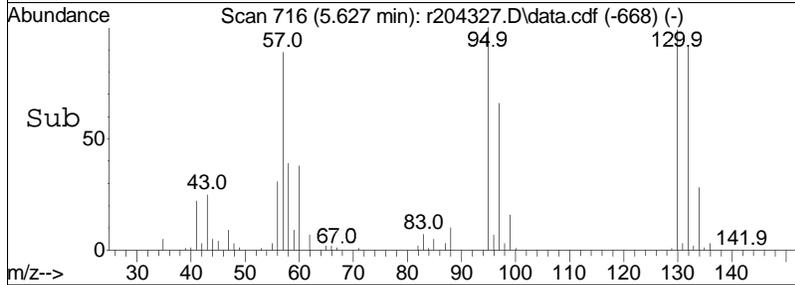
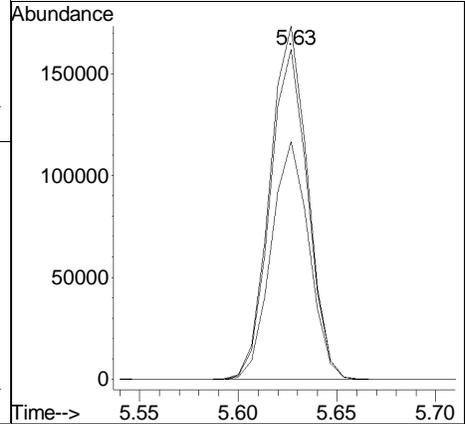
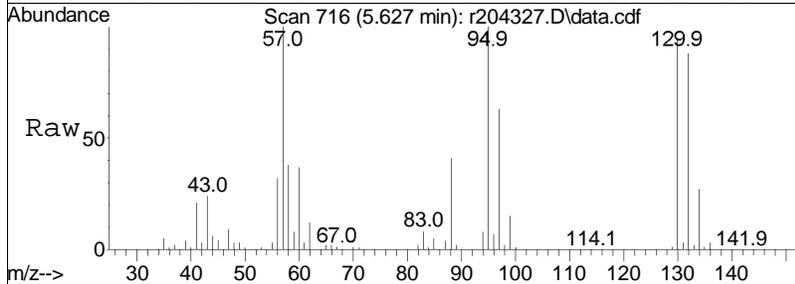
Tgt Ion:	Resp:		
Ion	Ratio	Lower	Upper
97	100		
61	43.9	30.4	45.6
119	14.5	11.4	17.2

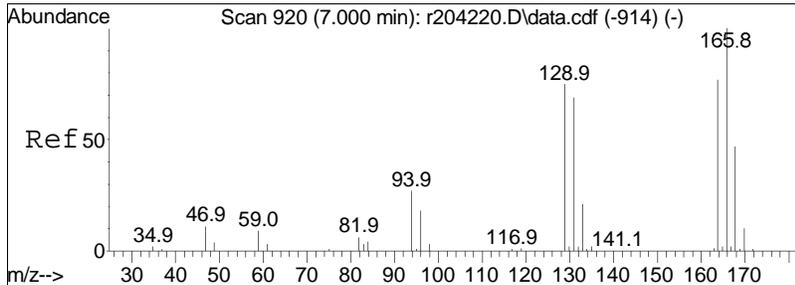




#59  
 trichloroethene  
 Concen: 10.68 ppbV  
 RT: 5.63 min Scan# 716  
 Delta R.T. -0.013 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

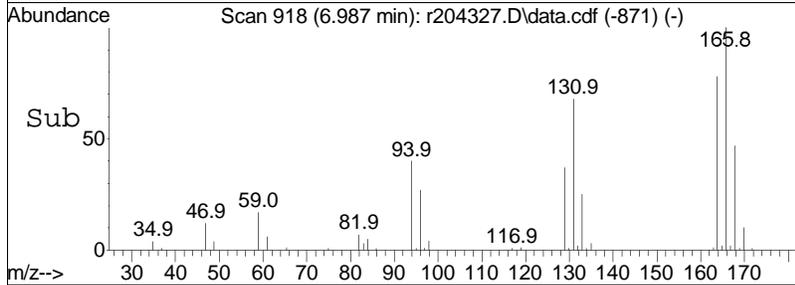
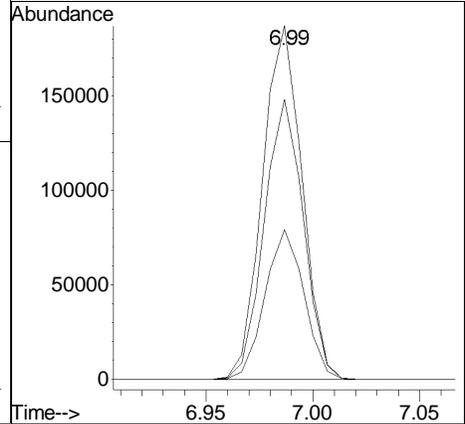
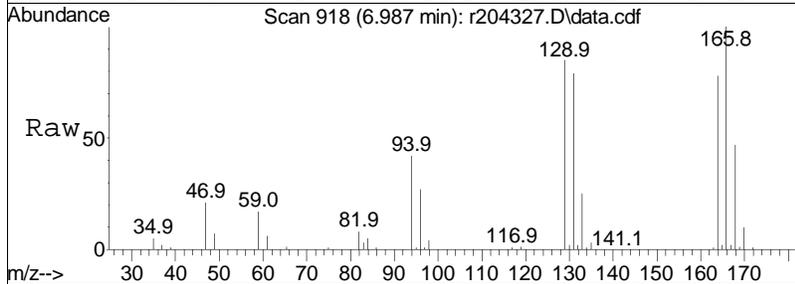
Tgt Ion	Resp	Lower	Upper
130	100		
132	93.4	74.4	111.6
97	67.3	49.6	74.4





#78  
 tetrachloroethene  
 Concen: 7.29 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204327.D  
 Acq: 21 Dec 2022 1:55 PM

Tgt Ion	Ratio	Lower	Upper
166	100		
131	79.2	55.8	83.6
94	42.3	24.0	36.0#



Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
 Data File : r204340.D  
 Acq On : 21 Dec 2022 11:45 PM  
 Operator : AIRLAB20:RAY  
 Sample : WGI726244-5,3,250,250  
 Misc : WGI726244,ICAL19588  
 ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:25:01 2022  
 Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
 Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
 QLast Update : Wed Dec 14 15:40:06 2022  
 Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab20\2022\12\1221T\r204327.D  
 Sub List : 9\_Chlorinateds - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	4.37	49	328984	10.000	ppbV	-0.01
Standard Area = 367526			Recovery =		89.51%	
43) 1,4-difluorobenzene	5.29	114	1068336	10.000	ppbV	-0.01
Standard Area = 1206052			Recovery =		88.58%	
67) chlorobenzene-D5	7.28	54	162256	10.000	ppbV	#-0.01
Standard Area = 171983			Recovery =		94.34%	

System Monitoring Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
9) vinyl chloride	0.00		0		N.D.	d
26) 1,1-dichloroethene	0.00		0		N.D.	
32) trans-1,2-dichloroethene	3.80	61	570	0.022	ppbV	97
33) 1,1-dichloroethane	0.00		0		N.D.	d
37) cis-1,2-dichloroethene	0.00		0		N.D.	d
42) 1,2-dichloroethane	0.00		0		N.D.	d
48) 1,1,1-trichloroethane	0.00		0		N.D.	
59) trichloroethene	0.00		0		N.D.	
78) tetrachloroethene	6.99	166	3346	0.108	ppbV	# 83

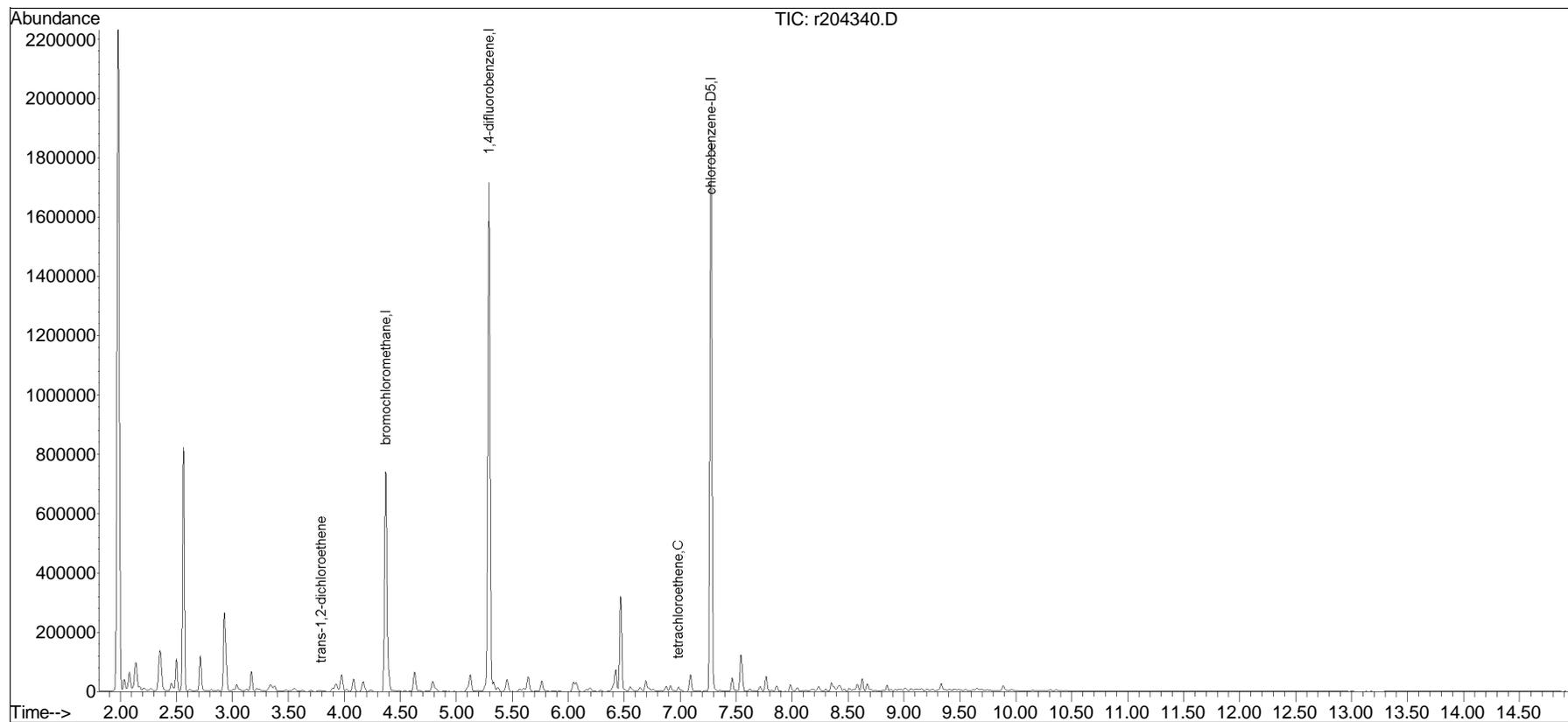
(#) = qualifier out of range (m) = manual integration (+) = signals summed

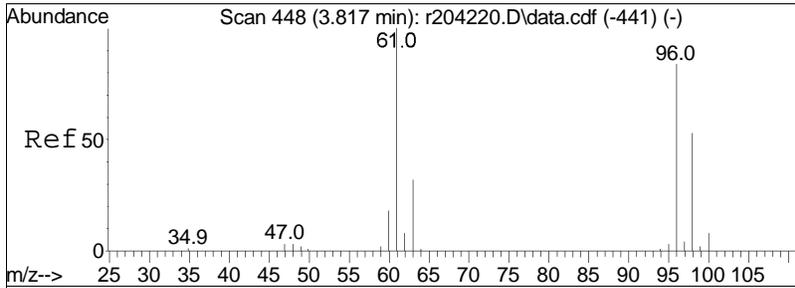
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab20\2022\12\1221T\  
Data File : r204340.D  
Acq On : 21 Dec 2022 11:45 PM  
Operator : AIRLAB20:RAY  
Sample : WG1726244-5,3,250,250  
Misc : WG1726244,ICAL19588  
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Dec 22 09:25:01 2022  
Quant Method : O:\Forensics\Data\Airlab20\2022\12\1221T\TFS20\_221213.M  
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis  
QLast Update : Wed Dec 14 15:40:06 2022  
Response via : Initial Calibration

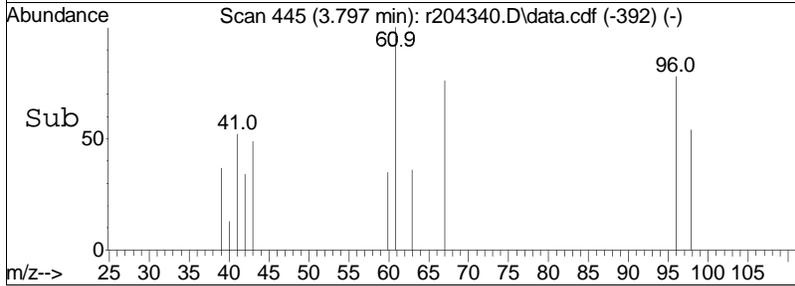
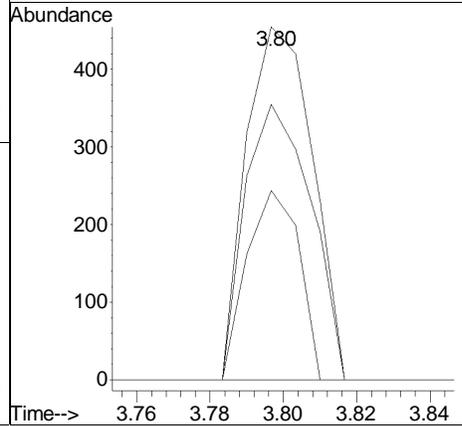
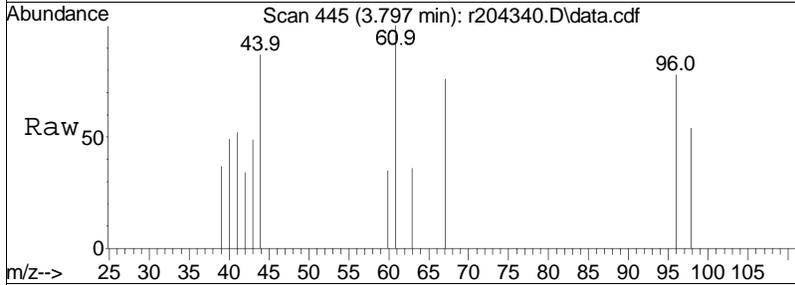
Sub List : 9\_Chlorinateds - .Airlab20\2022\12\1221T\r204327.D

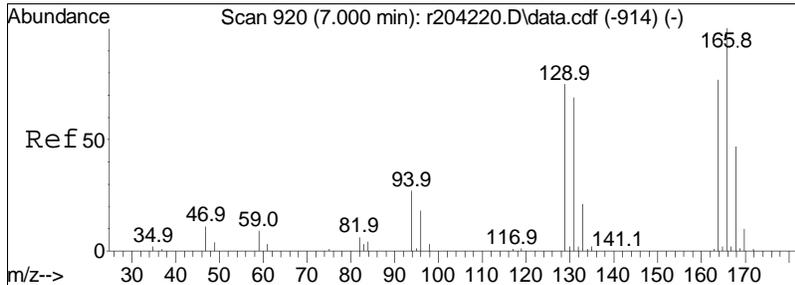




#32  
 trans-1,2-dichloroethene  
 Concen: 0.02 ppbV  
 RT: 3.80 min Scan# 445  
 Delta R.T. -0.020 min  
 Lab File: r204340.D  
 Acq: 21 Dec 2022 11:45 PM

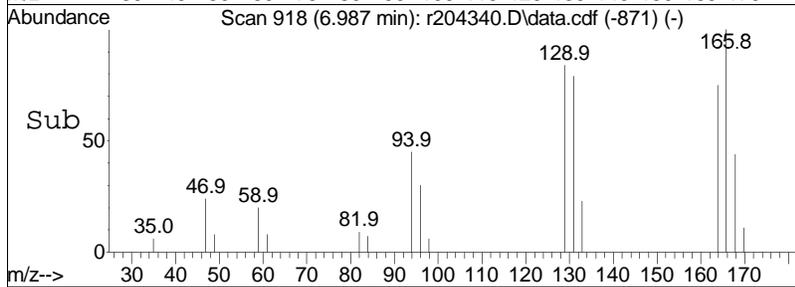
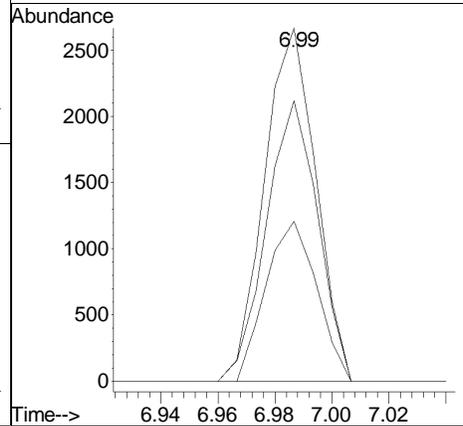
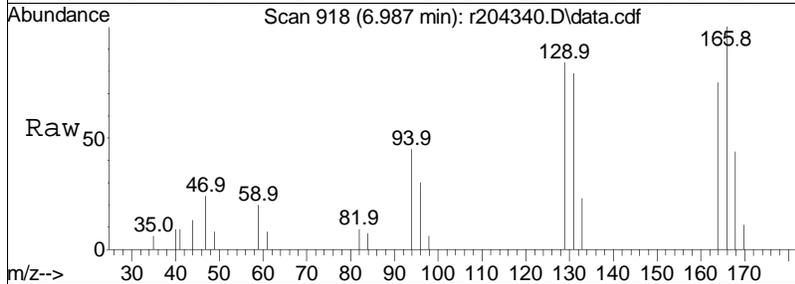
Tgt Ion	Resp	Lower	Upper
61	100		
96	78.0	63.7	95.5
98	53.6	40.4	60.6





#78  
 tetrachloroethene  
 Concen: 0.11 ppbV  
 RT: 6.99 min Scan# 918  
 Delta R.T. -0.013 min  
 Lab File: r204340.D  
 Acq: 21 Dec 2022 11:45 PM

Tgt Ion	Resp	Lower	Upper
166	100		
131	79.4	55.8	83.6
94	45.3	24.0	36.0#



Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab20\QMethod : TFS20\_221213.M  
Data File : r204340.D Operator : AIRLAB20:RAY  
Date Inj'd : 12/21/2020 0:1: 5 Instrument :  
Sample : WG1726244-5,3,250,250 Quant Date : 12/22/2022 8:48 am

There are no manual integrations or false positives in this file.

## Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

$$\text{Result, ppbv} = C_s \times \text{DF}$$

Where:

$C_s$  = Concentration of sample (ppbv)

DF = Dilution Factor

### Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

### Calculation of Dilution Factor

$$\text{DF} = V_{cf} / V_{ci}$$

Where:

$V_{ci}$  = volume of air in canister prior to pressurization, L

P =

### Conversion of ppbv to $\mu\text{g}/\text{m}^3$

$$\mu\text{g}/\text{m}^3 = (\text{ppbv}) * \text{MW} / 24.47$$

Where:

24.47 = molar gas constant (g/g-mole)

MW = molecular weight of the compound of interest

### Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

### Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$$V_{ci} = 2.7 * PI/14.696$$

Step 2: Calculate the volume in the canister after pressurization.

$$V_{cf} = 2.7 * PF/14.696$$

Step 3: Calculate the dilution factor.

$$DF = V_{cf} / V_{ci}$$

Where:

$V_{ci}$  = volume of air in canister prior to pressurization, L

PI = pressure reading of canister prior to pressurization (psia)

$V_{cf}$  = volume of air in canister after pressurization, L

PF = pressure reading of canister after pressurization (psia)

DF = dilution factor

14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Dec 29 2022, 03:42 pm

Work Group: WG1726244 for Department: 3 GC/MS

Created: 21-DEC-22 Due: Operator: NFL

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L2270207-01	IA-1	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-02	IA-2	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-03	IA-3	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-04	IA-4	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-05	OA-1	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-06	IA-5	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-07	IA-6	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-08	IA-7	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-09	IA-8	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-10	IA-9	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-11	IA-10	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270207-12	DUP121422	S TO15-LL	AIR	DONE	U	0113	1228	S0	Can-6
L2270888-02	OLINVILLE-IA-B02	S TO15-LL	AIR	DONE	U	0114	1222	3E	Can-6
WG1726244-1	MS BFB Tune Standard	S TO15-LL	AIR	DONE	U				
WG1726244-2	Continuing Calibrati	S TO15-LL	AIR	DONE	U				
WG1726244-3	Laboratory Control S	S TO15-LL	AIR	DONE	U				
WG1726244-4	Laboratory Method Bl	S TO15-LL	AIR	DONE	U				
WG1726244-5	Duplicate Sample	S TO15-LL	AIR	DONE	U				

Comments:

WG1726244-5 L2270207-09

# Alpha Analytical Air Lab Instrument Run Log

Instrument ID: AIRLAB20 Internal Standard/Surrogate IDs: SS22-029 / SS21-026

Date: 12/13/2022 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: JMB Sequence File Name: 220916.S

Position #	Sample ID	Acquisition Method	Data File ID	Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Pass ? Y/N
1	TA20121301	TO15_SFS.qgm	R204206.qgd	250 mL	TUNE		NA
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R204207.qgd	50 mL SS22-030D	SIM ONLY	DEFAULT	NA
5	ITO15-SIMSTD0.05	TO15_SFS.qgm	R204208.qgd	125 mL SS22-030D	SIM ONLY	DEFAULT	NA
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R204209.qgd	250 mL SS22-030D	SIM ONLY	DEFAULT	NA
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R204210.qgd	50 mL SS22-030C		DEFAULT	NA
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R204211.qgd	125 mL SS22-30C		DEFAULT	NA
6	ITO15-SIMSTD1.0	TO15_SFS.qgm	R204212.qgd	250 mL SS22-030C		DEFAULT	NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R204213.qgd	125 mL SS22-030F	DO NOT USE	DEFAULT	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R204214.qgd	250 mL SS22-30F	DO NOT USE	DEFAULT	NA
8	ITO15-SIMSTD020	TO15_SFS.qgm	R204215.qgd	50 mL SS22-030A		DEFAULT	NA
8	ITO15-SIMSTD050	TO15_SFS.qgm	R204216.qgd	125 mL SS22-030A		DEFAULT	NA
8	ITO15-LLSTD100	TO15_SFS.qgm	R204217.qgd	250 mL SS22-030A	LL ONLY	DEFAULT	NA
1	BA20121301	TO15_SFS.qgm	R204218.qgd	250 mL			NA
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R204219.qgd	125 mL SS22-030F		DEFAULT	NA
7	ITO15-SIMSTD010	TO15_SFS.qgm	R204220.qgd	250 mL SS22-30F		DEFAULT	NA
1	BA20121302	TO15_SFS.qgm	R204221.qgd	250 mL			NA
1	BA20121303	TO15_SFS.qgm	R204222.qgd	250 mL			NA
2	CTO15-LLSTD10.0	TO15_SFS.qgm	R204223.qgd	250 mL SS22-027B	LL ICV	DEF ICV AP2	NA
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R204224.qgd	125 mL SS22-027B	SIM ICV	DEF ICV AP2	NA

# Alpha Analytical Air Lab Instrument Run Log


**Date Acquired:** see Instrument Performance Check Summary and/or quantitation report.

**Sample ID information:** L1301234-01,3,250,250 analyzed (mL), nominal volume

**Dilution Factor:** See Form 1 report, or divide nominal volume by actual volume analyzed

# Alpha Analytical Air Lab Instrument Run Log

Instrument ID: AIRLAB20 Internal Standard/Surrogate IDs: SS22-029 / SS21-026

Date: 12/21/2022 Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: NFL Sequence File Name: 220916.S

Position #	Sample ID	Acquisition Method	Data File ID	Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Pass ? Y/N
1	TA20122101	TO15_SFS.qgm	R204325.qgd	250 mL	TUNE		NA
2	CA20122101	TO15_SFS.qgm	R204326.qgd	250 mL SS22-030H	NJ CC FAILED		NA
3	CTO15-LLSTD10.0	TO15_SFS.qgm	R204327.qgd	250 mL SS22-032B	LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS.qgm	R204328.qgd	125 mL SS22-032B	SIM LCS		NA
1	BA20122101	TO15_SFS.qgm	R204329.qgd	250 mL	LL BLANK		NA
1	BA20122102	TO15_SFS.qgm	R204330.qgd	250 mL	SIM BLANK		NA
1	L2270207-05,3,250,250	TO15_SFS.qgm	R204331.qgd	WG1726244,ICAL19588		9CHLOR	Y
2	L2270207-01,3,250,250	TO15_SFS.qgm	R204332.qgd	WG1726244,ICAL19588		9CHLOR	Y
3	L2270207-02,3,250,250	TO15_SFS.qgm	R204333.qgd	WG1726244,ICAL19588		9CHLOR	Y
4	L2270207-03,3,250,250	TO15_SFS.qgm	R204334.qgd	WG1726244,ICAL19588		9CHLOR	Y
5	L2270207-04,3,250,250	TO15_SFS.qgm	R204335.qgd	WG1726244,ICAL19588		9CHLOR	Y
6	L2270207-06,3,250,250	TO15_SFS.qgm	R204336.qgd	WG1726244,ICAL19588		9CHLOR	Y
7	L2270207-07,3,250,250	TO15_SFS.qgm	R204337.qgd	WG1726244,ICAL19588		9CHLOR	Y
8	L2270207-08,3,250,250	TO15_SFS.qgm	R204338.qgd	WG1726244,ICAL19588	DID NOT PULL	9CHLOR	Y
9	L2270207-09,3,250,250	TO15_SFS.qgm	R204339.qgd	WG1726244,ICAL19588		9CHLOR	Y
9	L2270207-09DUP,3,250,250	TO15_SFS.qgm	R204340.qgd	WG1726244,ICAL19588	LL DUP	9CHLOR	Y
10	L2270207-10,3,250,250	TO15_SFS.qgm	R204341.qgd	WG1726244,ICAL19588		9CHLOR	Y
11	L2270207-11,3,250,250	TO15_SFS.qgm	R204342.qgd	WG1726244,ICAL19588		9CHLOR	Y
12	L2270207-12,3,250,250	TO15_SFS.qgm	R204343.qgd	WG1726244,ICAL19588		9CHLOR	Y
8	L2270207-08,3,250,250	TO15_SFS.qgm	R204344.qgd	WG1726244,ICAL19588		9CHLOR	Y
13	L2270888-02D,3,125,250	TO15_SFS.qgm	R204345.qgd	WG1726244,ICAL19588		ETOH ONLY	Y

# Alpha Analytical Air Lab Instrument Run Log


**Date Acquired:** see Instrument Performance Check Summary and/or quantitation report.

**Sample ID information:** L1301234-01,3,250,250 analyzed (mL), nominal volume

**Dilution Factor:** See Form 1 report, or divide nominal volume by actual volume analyzed

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

# Appendix E

---

## Data Usability Summary Report

**DATA USABILITY SUMMARY REPORT  
30<sup>TH</sup> STREET REDEVELOPMENT, LONG ISLAND CITY, NEW YORK**

Client: GEI Consultants, Inc. P.C., Huntington Station, New York  
 SDG: L2270207  
 Laboratory: Alpha Analytical Laboratory, Mansfield, Massachusetts  
 Site: 30<sup>th</sup> Street Redevelopment Site, Long Island City, New York  
 Date: January 8, 2023

EDS ID	Client ID	Laboratory ID	Matrix
1	IA-1	L2270207-01	Air
2	IA-2	L2270207-02	Air
3	IA-3	L2270207-03	Air
4	IA-4	L2270207-04	Air
5	OA-1	L2270207-05	Air
6	IA-5	L2270207-06	Air
7	IA-6	L2270207-07	Air
8	IA-7	L2270207-08	Air
9	IA-8	L2270207-09	Air
10	IA-9	L2270207-10	Air
11	IA-10	L2270207-11	Air
12	DUP121422	L2270207-12	Air

A Data Usability Summary Review was performed on the analytical data for twelve air samples collected on December 14, 2022 by GEI at the 30<sup>th</sup> Street Redevelopment Site in Long Island City, New York. The samples were analyzed under “Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition January 1999, EPA/625/R-96/010B”, Compendium Method TO-15, “Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)”.

The data have been evaluated according to the protocols and quality control (QC) requirements of the USEPA Region II Data Review Standard Operating Procedure (SOP) Number HW-31, Revision 6, June 2014: Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15, and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

***Organics***

- Data Completeness
- Cover letter, Narrative, and Data Reporting Forms
- Canister Certification Blanks
- Canister Certification Pressures Differences
- Chains-of-Custody and Traffic Reports

- Holding Times and sample preservation
- Laboratory Control Sample (LCS) recoveries
- GC/MS Tuning
- Method Blank Contamination
- Initial and Continuing Calibration Summaries
- Compound Quantitation
- Internal Standard (IS) Area Performance
- Field Duplicate Sample Precision

### **Data Usability Assessment**

There were no rejections of data.

The data are acceptable for the intended purposes. There were no qualifications.

### **Data Completeness**

- The data is a complete Category B data package as defined under the requirements for the NYS Department of Environmental Conservation Analytical Services Protocol.

### **Cover letter, Narrative, and Data Reporting Forms**

- All criteria were met.

### **Canister Certification Blanks**

- The batch blank checks were non-detect or < RL.

### **Canister Certification Pressures Differences**

- All criteria were met.

### **Chains-of-Custody and Traffic Reports**

- All criteria were met.

### **Holding Times**

- All samples were analyzed within 30 days for air samples.

**Laboratory Control Samples (LCS)**

- The LCS samples exhibited acceptable percent recoveries (%R).

**GC/MS Tuning**

- All criteria were met.

**Method Blank**

- The method blanks were free of contamination.

**Initial Calibration**

- All %RSD and mean RRF criteria were met.

**Continuing Calibration**

- The continuing calibrations exhibited acceptable percent difference (%D) and RRF criteria.

**Compound Quantitation**

- All criteria were met.

**Internal Standard (IS) Area Performance**

- All internal standards met response and retention time (RT) criteria.

**Field Duplicate Sample Precision**

- Field duplicate results are summarized below. The precision was acceptable.

Compound	IA-10 ug/m3	DUP121422 ug/m3	RPD	Qualifier
None	ND	ND	-	-

Please contact the undersigned at (561) 475-2000 if you have any questions or need further information.

Signed: Nancy Weaver  
Nancy Weaver  
Senior Chemist

Dated: 1/10/23

<b>Data Qualifier</b>	<b>Definition</b>
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



# Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-01	Date Collected : 12/14/22 07:05
Client ID : IA-1	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/21/22 19:13
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204332	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



mw118123

2

# Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants  
 Project Name : 30TH STREET REDEVELOPMENT SITE  
 Lab ID : L2270207-02  
 Client ID : IA-2  
 Sample Location : 37-24/28 30TH STREET LONG ISLAND  
 CITY, NY 11101  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R204333  
 Sample Amount : 250 ml

Lab Number : L2270207  
 Project Number : 1800522  
 Date Collected : 12/14/22 08:48  
 Date Received : 12/14/22  
 Date Analyzed : 12/21/22 19:44  
 Dilution Factor : 1  
 Analyst : RAY  
 Instrument ID : AIRLAB20  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

W118123



3

# Results Summary Form 1 Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-03	Date Collected	: 12/14/22 07:06
Client ID	: IA-3	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/21/22 20:15
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204334	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

nd 1/8/23



4

## Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-04	Date Collected : 12/14/22 07:07
Client ID : IA-4	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/21/22 20:46
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204335	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

MW18123



5

# Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants  
 Project Name : 30TH STREET REDEVELOPMENT SITE  
 Lab ID : L2270207-05  
 Client ID : OA-1  
 Sample Location : 37-24/28 30TH STREET LONG ISLAND  
 CITY, NY 11101  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R204331  
 Sample Amount : 250 ml

Lab Number : L2270207  
 Project Number : 1800522  
 Date Collected : 12/14/22 07:04  
 Date Received : 12/14/22  
 Date Analyzed : 12/21/22 18:36  
 Dilution Factor : 1  
 Analyst : RAY  
 Instrument ID : AIRLAB20  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

MW 118123



6

# Results Summary Form 1 Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-06	Date Collected	: 12/14/22 07:08
Client ID	: IA-5	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/21/22 21:26
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204336	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

MW 18123



7

## Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-07	Date Collected : 12/14/22 07:09
Client ID : IA-6	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/21/22 21:59
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204337	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

NW 118123



8

## Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-08	Date Collected : 12/14/22 07:25
Client ID : IA-7	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/22/22 08:31
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204344	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U



# Results Summary Form 1 Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-09	Date Collected	: 12/14/22 07:11
Client ID	: IA-8	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/21/22 23:14
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204339	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

NW 1/8/23



## Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants	Lab Number : L2270207
Project Name : 30TH STREET REDEVELOPMENT SITE	Project Number : 1800522
Lab ID : L2270207-10	Date Collected : 12/14/22 07:13
Client ID : IA-9	Date Received : 12/14/22
Sample Location : 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed : 12/22/22 00:16
Sample Matrix : AIR	Dilution Factor : 1
Analytical Method : 48,TO-15	Analyst : RAY
Lab File ID : R204341	Instrument ID : AIRLAB20
Sample Amount : 250 ml	GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

NW 11/8/23



11

# Results Summary Form 1 Volatile Organics in Air

Client	: GEI Consultants	Lab Number	: L2270207
Project Name	: 30TH STREET REDEVELOPMENT SITE	Project Number	: 1800522
Lab ID	: L2270207-11	Date Collected	: 12/14/22 09:23
Client ID	: IA-10	Date Received	: 12/14/22
Sample Location	: 37-24/28 30TH STREET LONG ISLAND CITY, NY 11101	Date Analyzed	: 12/22/22 00:46
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RAY
Lab File ID	: R204342	Instrument ID	: AIRLAB20
Sample Amount	: 250 ml	GC Column	: RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

MW, 1/8/23



12

# Results Summary Form 1 Volatile Organics in Air

Client : GEI Consultants  
 Project Name : 30TH STREET REDEVELOPMENT SITE  
 Lab ID : L2270207-12  
 Client ID : DUP121422  
 Sample Location : 37-24/28 30TH STREET LONG ISLAND  
 CITY, NY 11101  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R204343  
 Sample Amount : 250 ml

Lab Number : L2270207  
 Project Number : 1800522  
 Date Collected : 12/14/22 09:23  
 Date Received : 12/14/22  
 Date Analyzed : 12/22/22 01:19  
 Dilution Factor : 1  
 Analyst : RAY  
 Instrument ID : AIRLAB20  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U

mw 1/8/23



Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix F**

---

### **Manufacturer's Specifications for SSDS Fans**



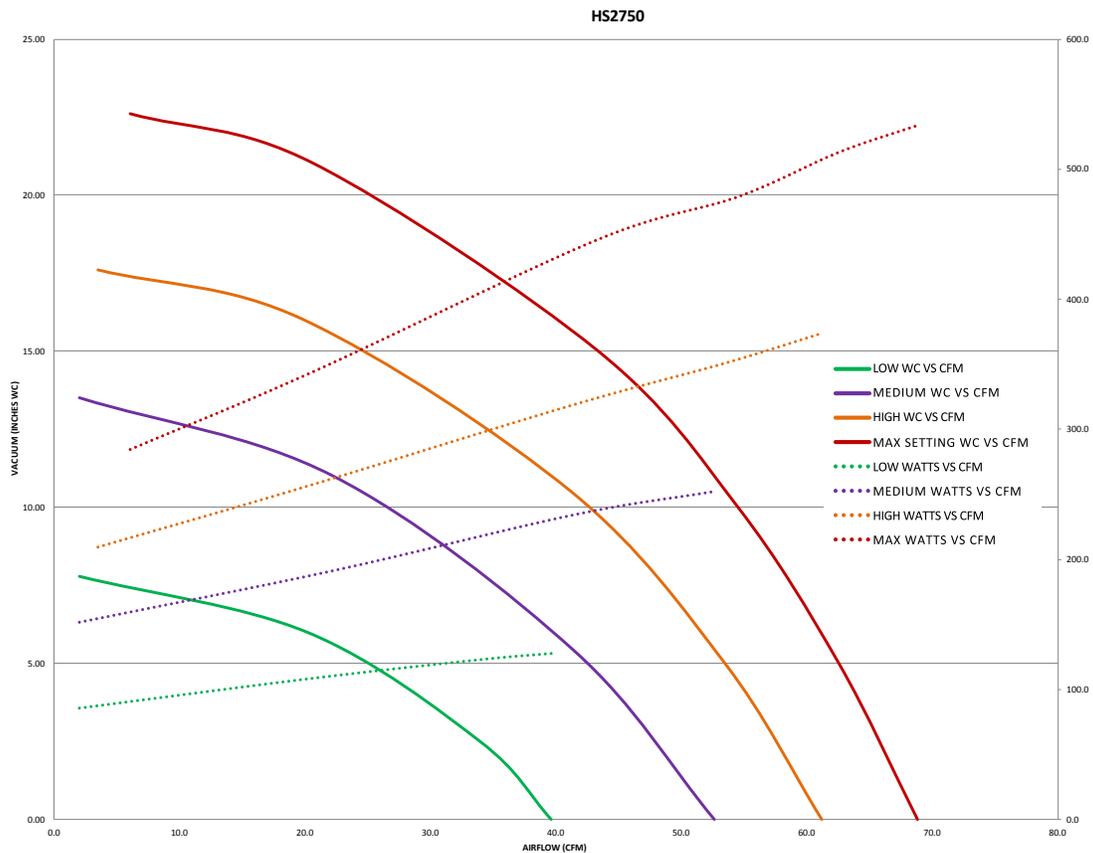
# HS2750

RadonAway's new HS2750 is an ETL-listed high pressure blower that has been designed with the professional in mind. The HS2750 features multiple speed settings to meet site-specific pressures and air flows easily verified by a built in pressure gauge in the front cover of the unit. This blower unit has a new electrical box design with a wire terminal strip along with two flexible pipe couplings for quick and easy site installation.

## HS2750 FEATURES

- 4 Blower Speed Settings
- Integrated Condensate Bypass
- Designed for Easy Motor Replacement
- ETL Listed
- Built-in 40" Vacuum Gauge
- Quiet Operation
- Single Stage Blower Designed for Harsh Environmental Conditions

SPEED SETTING	MAX RECOMMENDED OPERATING VACUUM	MAX OPERATING RANGE WATTS
LOW	5" WC	112-123
MEDIUM	10" WC	199-245
HIGH	15" WC	266-337
MAX	20" WC	361-463



Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## Appendix G

---

### Pilot Test Logs

Date: 1/26/22  
By: GH  
Contractor: Envirotree (MCH)

PT-1

in Wg

Time	Vacuum (inH <sub>2</sub> O) at Wellhead	Extraction Flowrate (scfm)	PID Reading (ppm)	Measured Vacuum (inH <sub>2</sub> O) at Vapor Monitoring Points			
				MP-3	MP-4	MP-7	MP-8
0820	-8.0 (-16)	149.4	0.0	-0.110	-0.155	<del>-0.047</del> <del>-0.148</del>	-0.154
0840	-7.0 (-12)	110.22	0.0	-0.059	<del>-0.100</del> <del>-0.099</del>	-0.034	<del>-0.093</del> -0.095
0855	-6.0 (-9)	77.34	0.0	-0.047	-0.063	-0.018	-0.061
0910	-6.0 (-5)	45.5	0.0	-0.023	-0.032	-0.010	-0.031

Notes:  
ft - feet  
inH<sub>2</sub>O - inches of water

effluent  
sample - PT-1 -28/-5 0930 ca 20754  
gms

Date: 1/26/22

By: GH

Contractor: Envirotree-MH

PT-2

bottom well #4 sealed

- used hydraulic cement

← distributed filter paper

stopped and sealed points -

Time	Vacuum (inH <sub>2</sub> O) at Wellhead	Extraction Flowrate (scfm)	PID Reading (ppm)	Measured Vacuum (inH <sub>2</sub> O) at Vapor Monitoring Points					
				MP-1	MP-2	MP-5	MP-6		
1130	-8 (18)	136.22	0.0	-0.662	-0.398	<del>-0.075</del>	-0.155		
1145	-7 (-17)	105.36	0.0	-0.760	-0.682	-0.114	-0.686		
1200	-6 (-9)	70.57	0.0	-0.355	-0.392	-0.097	-0.246		
1215	-5.5 (-6)	36.21	0.0	-0.141	-0.141	-0.043	-0.189		
1230	-7 (-18)	151.5	0.0	-1.081	-0.971	-0.268	-1.039		

Notes:  
ft - Feet  
inH<sub>2</sub>O - Inches of water

effluent PT-2 -30/-5 can 16694  
1245

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix H**

---

### **Effluent Data Laboratory Analytical Reports**



## ANALYTICAL REPORT

Lab Number:	L2270974
Client:	GEI Consultants 1000 New York Avenue Suite B Huntington Station, NY 11746
ATTN:	William Fitchett
Phone:	(631) 479-3509
Project Name:	30TH STREET REDEVELOPMENT SITE
Project Number:	1800522
Report Date:	01/03/23

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](http://www.alphalab.com)



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2270974-01	EFFLUENT 1	SOIL_VAPOR	37-24/28 30TH STREET, LONG ISLAND, NY 11101	12/15/22 07:47	12/16/22
L2270974-02	EFFLUENT 2	SOIL_VAPOR	37-24/28 30TH STREET, LONG ISLAND, NY 11101	12/15/22 07:53	12/16/22

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### 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:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on December 15, 2022. The canister certification results are provided as an addendum.

L2270974-01D and -02D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

L2270974-02: The canister vacuum measured on receipt at the laboratory was > 15 in. Hg. Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Nitrogen resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 01/03/23

**AIR**

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### SAMPLE RESULTS

Lab ID: L2270974-01 D  
 Client ID: EFFLUENT 1  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:47  
 Date Received: 12/16/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/30/22 19:40  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.528	0.279	--	2.61	1.38	--		1.394
Chloromethane	ND	0.279	--	ND	0.576	--		1.394
Freon-114	ND	0.279	--	ND	1.95	--		1.394
Vinyl chloride	ND	0.279	--	ND	0.713	--		1.394
1,3-Butadiene	ND	0.279	--	ND	0.617	--		1.394
Bromomethane	ND	0.279	--	ND	1.08	--		1.394
Chloroethane	ND	0.279	--	ND	0.736	--		1.394
Ethanol	ND	6.97	--	ND	13.1	--		1.394
Vinyl bromide	ND	0.279	--	ND	1.22	--		1.394
Acetone	1.85	1.39	--	4.39	3.30	--		1.394
Trichlorofluoromethane	ND	0.279	--	ND	1.57	--		1.394
Isopropanol	ND	0.697	--	ND	1.71	--		1.394
1,1-Dichloroethene	ND	0.279	--	ND	1.11	--		1.394
Tertiary butyl Alcohol	ND	0.697	--	ND	2.11	--		1.394
Methylene chloride	ND	0.697	--	ND	2.42	--		1.394
3-Chloropropene	ND	0.279	--	ND	0.873	--		1.394
Carbon disulfide	ND	0.279	--	ND	0.869	--		1.394
Freon-113	ND	0.279	--	ND	2.14	--		1.394
trans-1,2-Dichloroethene	ND	0.279	--	ND	1.11	--		1.394
1,1-Dichloroethane	ND	0.279	--	ND	1.13	--		1.394
Methyl tert butyl ether	ND	0.279	--	ND	1.01	--		1.394
2-Butanone	ND	0.697	--	ND	2.06	--		1.394
cis-1,2-Dichloroethene	ND	0.279	--	ND	1.11	--		1.394



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### SAMPLE RESULTS

Lab ID: L2270974-01 D  
 Client ID: EFFLUENT 1  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:47  
 Date Received: 12/16/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.697	--	ND	2.51	--		1.394
Chloroform	0.499	0.279	--	2.44	1.36	--		1.394
Tetrahydrofuran	ND	0.697	--	ND	2.06	--		1.394
1,2-Dichloroethane	ND	0.279	--	ND	1.13	--		1.394
n-Hexane	ND	0.279	--	ND	0.983	--		1.394
1,1,1-Trichloroethane	ND	0.279	--	ND	1.52	--		1.394
Benzene	ND	0.279	--	ND	0.891	--		1.394
Carbon tetrachloride	ND	0.279	--	ND	1.76	--		1.394
Cyclohexane	ND	0.279	--	ND	0.960	--		1.394
1,2-Dichloropropane	ND	0.279	--	ND	1.29	--		1.394
Bromodichloromethane	ND	0.279	--	ND	1.87	--		1.394
1,4-Dioxane	ND	0.279	--	ND	1.01	--		1.394
Trichloroethene	0.492	0.279	--	2.64	1.50	--		1.394
2,2,4-Trimethylpentane	ND	0.279	--	ND	1.30	--		1.394
Heptane	ND	0.279	--	ND	1.14	--		1.394
cis-1,3-Dichloropropene	ND	0.279	--	ND	1.27	--		1.394
4-Methyl-2-pentanone	ND	0.697	--	ND	2.86	--		1.394
trans-1,3-Dichloropropene	ND	0.279	--	ND	1.27	--		1.394
1,1,2-Trichloroethane	ND	0.279	--	ND	1.52	--		1.394
Toluene	ND	0.279	--	ND	1.05	--		1.394
2-Hexanone	ND	0.279	--	ND	1.14	--		1.394
Dibromochloromethane	ND	0.279	--	ND	2.38	--		1.394
1,2-Dibromoethane	ND	0.279	--	ND	2.14	--		1.394
Tetrachloroethene	19.1	0.279	--	130	1.89	--		1.394
Chlorobenzene	ND	0.279	--	ND	1.28	--		1.394
Ethylbenzene	ND	0.279	--	ND	1.21	--		1.394



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### SAMPLE RESULTS

Lab ID: L2270974-01 D  
 Client ID: EFFLUENT 1  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:47  
 Date Received: 12/16/22  
 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								
p/m-Xylene	ND	0.558	--	ND	2.42	--		1.394
Bromoform	ND	0.279	--	ND	2.88	--		1.394
Styrene	ND	0.279	--	ND	1.19	--		1.394
1,1,2,2-Tetrachloroethane	ND	0.279	--	ND	1.92	--		1.394
o-Xylene	ND	0.279	--	ND	1.21	--		1.394
4-Ethyltoluene	ND	0.279	--	ND	1.37	--		1.394
1,3,5-Trimethylbenzene	ND	0.279	--	ND	1.37	--		1.394
1,2,4-Trimethylbenzene	0.294	0.279	--	1.45	1.37	--		1.394
Benzyl chloride	ND	0.279	--	ND	1.44	--		1.394
1,3-Dichlorobenzene	ND	0.279	--	ND	1.68	--		1.394
1,4-Dichlorobenzene	ND	0.279	--	ND	1.68	--		1.394
1,2-Dichlorobenzene	ND	0.279	--	ND	1.68	--		1.394
1,2,4-Trichlorobenzene	ND	0.279	--	ND	2.07	--		1.394
Hexachlorobutadiene	ND	0.279	--	ND	2.98	--		1.394

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### SAMPLE RESULTS

Lab ID: L2270974-02 D  
 Client ID: EFFLUENT 2  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:53  
 Date Received: 12/16/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/30/22 20:21  
 Analyst: TJS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.543	0.330	--	2.69	1.63	--		1.65
Chloromethane	ND	0.330	--	ND	0.681	--		1.65
Freon-114	ND	0.330	--	ND	2.31	--		1.65
Vinyl chloride	ND	0.330	--	ND	0.844	--		1.65
1,3-Butadiene	ND	0.330	--	ND	0.730	--		1.65
Bromomethane	ND	0.330	--	ND	1.28	--		1.65
Chloroethane	ND	0.330	--	ND	0.871	--		1.65
Ethanol	14.2	8.25	--	26.8	15.5	--		1.65
Vinyl bromide	ND	0.330	--	ND	1.44	--		1.65
Acetone	2.68	1.65	--	6.37	3.92	--		1.65
Trichlorofluoromethane	ND	0.330	--	ND	1.85	--		1.65
Isopropanol	ND	0.825	--	ND	2.03	--		1.65
1,1-Dichloroethene	ND	0.330	--	ND	1.31	--		1.65
Tertiary butyl Alcohol	ND	0.825	--	ND	2.50	--		1.65
Methylene chloride	ND	0.825	--	ND	2.87	--		1.65
3-Chloropropene	ND	0.330	--	ND	1.03	--		1.65
Carbon disulfide	ND	0.330	--	ND	1.03	--		1.65
Freon-113	ND	0.330	--	ND	2.53	--		1.65
trans-1,2-Dichloroethene	ND	0.330	--	ND	1.31	--		1.65
1,1-Dichloroethane	ND	0.330	--	ND	1.34	--		1.65
Methyl tert butyl ether	ND	0.330	--	ND	1.19	--		1.65
2-Butanone	ND	0.825	--	ND	2.43	--		1.65
cis-1,2-Dichloroethene	ND	0.330	--	ND	1.31	--		1.65



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### SAMPLE RESULTS

Lab ID: L2270974-02 D  
 Client ID: EFFLUENT 2  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:53  
 Date Received: 12/16/22  
 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								
Ethyl Acetate	ND	0.825	--	ND	2.97	--		1.65
Chloroform	0.485	0.330	--	2.37	1.61	--		1.65
Tetrahydrofuran	1.58	0.825	--	4.66	2.43	--		1.65
1,2-Dichloroethane	ND	0.330	--	ND	1.34	--		1.65
n-Hexane	ND	0.330	--	ND	1.16	--		1.65
1,1,1-Trichloroethane	ND	0.330	--	ND	1.80	--		1.65
Benzene	ND	0.330	--	ND	1.05	--		1.65
Carbon tetrachloride	ND	0.330	--	ND	2.08	--		1.65
Cyclohexane	ND	0.330	--	ND	1.14	--		1.65
1,2-Dichloropropane	ND	0.330	--	ND	1.53	--		1.65
Bromodichloromethane	ND	0.330	--	ND	2.21	--		1.65
1,4-Dioxane	ND	0.330	--	ND	1.19	--		1.65
Trichloroethene	0.766	0.330	--	4.12	1.77	--		1.65
2,2,4-Trimethylpentane	ND	0.330	--	ND	1.54	--		1.65
Heptane	ND	0.330	--	ND	1.35	--		1.65
cis-1,3-Dichloropropene	ND	0.330	--	ND	1.50	--		1.65
4-Methyl-2-pentanone	ND	0.825	--	ND	3.38	--		1.65
trans-1,3-Dichloropropene	ND	0.330	--	ND	1.50	--		1.65
1,1,2-Trichloroethane	ND	0.330	--	ND	1.80	--		1.65
Toluene	ND	0.330	--	ND	1.24	--		1.65
2-Hexanone	ND	0.330	--	ND	1.35	--		1.65
Dibromochloromethane	ND	0.330	--	ND	2.81	--		1.65
1,2-Dibromoethane	ND	0.330	--	ND	2.54	--		1.65
Tetrachloroethene	30.2	0.330	--	205	2.24	--		1.65
Chlorobenzene	ND	0.330	--	ND	1.52	--		1.65
Ethylbenzene	ND	0.330	--	ND	1.43	--		1.65



**Project Name:** 30TH STREET REDEVELOPMENT SITE**Lab Number:** L2270974**Project Number:** 1800522**Report Date:** 01/03/23**SAMPLE RESULTS**

Lab ID: L2270974-02 D  
 Client ID: EFFLUENT 2  
 Sample Location: 37-24/28 30TH STREET, LONG ISLAND, NY  
 11101

Date Collected: 12/15/22 07:53  
 Date Received: 12/16/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	ND	0.660	--	ND	2.87	--		1.65
Bromoform	ND	0.330	--	ND	3.41	--		1.65
Styrene	ND	0.330	--	ND	1.41	--		1.65
1,1,2,2-Tetrachloroethane	ND	0.330	--	ND	2.27	--		1.65
o-Xylene	ND	0.330	--	ND	1.43	--		1.65
4-Ethyltoluene	ND	0.330	--	ND	1.62	--		1.65
1,3,5-Trimethylbenzene	ND	0.330	--	ND	1.62	--		1.65
1,2,4-Trimethylbenzene	ND	0.330	--	ND	1.62	--		1.65
Benzyl chloride	ND	0.330	--	ND	1.71	--		1.65
1,3-Dichlorobenzene	ND	0.330	--	ND	1.98	--		1.65
1,4-Dichlorobenzene	ND	0.330	--	ND	1.98	--		1.65
1,2-Dichlorobenzene	ND	0.330	--	ND	1.98	--		1.65
1,2,4-Trichlorobenzene	ND	0.330	--	ND	2.45	--		1.65
Hexachlorobutadiene	ND	0.330	--	ND	3.52	--		1.65

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



Project Name: 30TH STREET REDEVELOPMENT SITE

Lab Number: L2270974

Project Number: 1800522

Report Date: 01/03/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/30/22 18:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1729000-4								
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: 30TH STREET REDEVELOPMENT SITE

Lab Number: L2270974

Project Number: 1800522

Report Date: 01/03/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/30/22 18:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1729000-4								
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: 30TH STREET REDEVELOPMENT SITE

Lab Number: L2270974

Project Number: 1800522

Report Date: 01/03/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/30/22 18:20

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1729000-4								
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:** 30TH STREET REDEVELOPMENT SITE

**Lab Number:** L2270974

**Project Number:** 1800522

**Report Date:** 01/03/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1729000-3								
Dichlorodifluoromethane	95		-		70-130	-		
Chloromethane	95		-		70-130	-		
Freon-114	99		-		70-130	-		
Vinyl chloride	95		-		70-130	-		
1,3-Butadiene	101		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	94		-		70-130	-		
Ethanol	96		-		40-160	-		
Vinyl bromide	94		-		70-130	-		
Acetone	95		-		40-160	-		
Trichlorofluoromethane	96		-		70-130	-		
Isopropanol	100		-		40-160	-		
1,1-Dichloroethene	108		-		70-130	-		
Tertiary butyl Alcohol	106		-		70-130	-		
Methylene chloride	105		-		70-130	-		
3-Chloropropene	110		-		70-130	-		
Carbon disulfide	97		-		70-130	-		
Freon-113	106		-		70-130	-		
trans-1,2-Dichloroethene	100		-		70-130	-		
1,1-Dichloroethane	104		-		70-130	-		
Methyl tert butyl ether	109		-		70-130	-		
2-Butanone	104		-		70-130	-		
cis-1,2-Dichloroethene	108		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 30TH STREET REDEVELOPMENT SITE

**Lab Number:** L2270974

**Project Number:** 1800522

**Report Date:** 01/03/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1729000-3								
Ethyl Acetate	108		-		70-130	-		
Chloroform	107		-		70-130	-		
Tetrahydrofuran	102		-		70-130	-		
1,2-Dichloroethane	105		-		70-130	-		
n-Hexane	106		-		70-130	-		
1,1,1-Trichloroethane	108		-		70-130	-		
Benzene	101		-		70-130	-		
Carbon tetrachloride	111		-		70-130	-		
Cyclohexane	106		-		70-130	-		
1,2-Dichloropropane	106		-		70-130	-		
Bromodichloromethane	106		-		70-130	-		
1,4-Dioxane	106		-		70-130	-		
Trichloroethene	107		-		70-130	-		
2,2,4-Trimethylpentane	107		-		70-130	-		
Heptane	108		-		70-130	-		
cis-1,3-Dichloropropene	118		-		70-130	-		
4-Methyl-2-pentanone	111		-		70-130	-		
trans-1,3-Dichloropropene	102		-		70-130	-		
1,1,2-Trichloroethane	109		-		70-130	-		
Toluene	100		-		70-130	-		
2-Hexanone	108		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	109		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 30TH STREET REDEVELOPMENT SITE

**Lab Number:** L2270974

**Project Number:** 1800522

**Report Date:** 01/03/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1729000-3								
Tetrachloroethene	106		-		70-130	-		
Chlorobenzene	107		-		70-130	-		
Ethylbenzene	110		-		70-130	-		
p/m-Xylene	110		-		70-130	-		
Bromoform	113		-		70-130	-		
Styrene	112		-		70-130	-		
1,1,2,2-Tetrachloroethane	109		-		70-130	-		
o-Xylene	112		-		70-130	-		
4-Ethyltoluene	107		-		70-130	-		
1,3,5-Trimethylbenzene	112		-		70-130	-		
1,2,4-Trimethylbenzene	116		-		70-130	-		
Benzyl chloride	123		-		70-130	-		
1,3-Dichlorobenzene	113		-		70-130	-		
1,4-Dichlorobenzene	111		-		70-130	-		
1,2-Dichlorobenzene	110		-		70-130	-		
1,2,4-Trichlorobenzene	115		-		70-130	-		
Hexachlorobutadiene	103		-		70-130	-		

**Project Name:** 30TH STREET REDEVELOPMENT SITE

**Project Number:** 1800522

Serial\_No:01032317:05  
**Lab Number:** L2270974

**Report Date:** 01/03/23

**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
L2270974-01	EFFLUENT 1	2671	6.0L Can	12/15/22	409051	L2268879-05	Pass	-30.1	-15.0	-	-	-	-
L2270974-02	EFFLUENT 2	3308	6.0L Can	12/15/22	409051	L2268879-08	Pass	-30.1	-17.2	-	-	-	-

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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/08/22 23:34  
 Analyst: TJS

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:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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	98		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	95		60-140



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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/08/22 23:34  
 Analyst: TJS

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
Acrolein	ND	0.050	--	ND	0.115	--		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



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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-05  
 Client ID: CAN 2720 SHELF 38  
 Sample Location:

Date Collected: 12/07/22 18:00  
 Date Received: 12/08/22  
 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								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	95		60-140

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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/09/22 01:30  
 Analyst: TJS

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:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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  
**Project Number:** CANISTER QC BAT

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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	98		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	95		60-140



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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 12/09/22 01:30  
 Analyst: TJS

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
Acrolein	ND	0.050	--	ND	0.115	--		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



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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

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

**Lab Number:** L2268879  
**Report Date:** 01/03/23

### Air Canister Certification Results

Lab ID: L2268879-08  
 Client ID: CAN 3336 SHELF 43  
 Sample Location:

Date Collected: 12/08/22 11:00  
 Date Received: 12/08/22  
 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								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	95		60-140

**Project Name:** 30TH STREET REDEVELOPMENT SITE**Lab Number:** L2270974**Project Number:** 1800522**Report Date:** 01/03/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

N/A                              Present/Intact

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2270974-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L2270974-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

## 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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: Data Usability Report



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

### Footnotes

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

### Terms

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

**Chlordane:** 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.)

**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'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**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. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.

Report Format: Data Usability Report



**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

#### **Data Qualifiers**

- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** 30TH STREET REDEVELOPMENT SITE  
**Project Number:** 1800522

**Lab Number:** L2270974  
**Report Date:** 01/03/23

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

---

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

---

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, 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, **LCHAT 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, SM9222D.**

### 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, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

---

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

# AIR ANALYSIS

PAGE 1 OF 1



**CHAIN OF CUSTODY**

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

**Client Information**

Client: GEI Consultants, Inc. P.C.  
 Address: 1000 New York Avenue, Ste B  
Huntington Station, NY 11746  
 Phone: 631-905-7636  
 Fax:  
 Email: wfitchett@geiconsultants.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Project Information**

Project Name: 30th Street Redevelopment Site  
 Project Location: 37-24/28 30th Street  
Long Island City, NY 11101  
 Project #: 1800522  
 Project Manager: William J. Fitchett  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved)

Date Due: Time:

**Report Information - Data Deliverables**

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

Date Rec'd in Lab: 12/17/22

ALPHA Job #: L2270974

**Billing Information**

Same as Client info PO #: 1800522

**Regulatory Requirements/Report Limits**

State/Fed Program Res / Comm

**ANALYSIS**

TO-15  
 TO-15 SIM  
 APH  
 Fixed Gases  
 Sulfides & Mercaptans by TO-15

Please include Nick Recchia on results  
 nrecchia@geiconsultants.com

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
70974-01	Effluent 1	12/15/22	747	747	-29	-13	SV	WF	6L	2671	GR0063	X						
-02	Effluent 2	12/15/22	753	753	-15	-10	SV	WF	6L	3308	GR0015	X						

\*SAMPLE MATRIX CODES

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

Container Type

6

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

Relinquished By:

Date/Time

Received By:

Date/Time:

W. J. Fitchett  
William J. Fitchett AAL  
WJF

12/16/22 10:14 am  
12/16/22 11:13 am  
12-16-22

David Hall AAL  
David Hall  
D. Hall

12/16/22 10:14  
12-16-22 11:13  
12/17/22 0100  
12/17/22 04:20

Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

# Appendix I

---

## Pilot Test Laboratory Analytical Results



# Technical Report

prepared for:

**GEI Consultants, Inc**  
1000 New York Avenue  
Huntington Station NY, 11746  
**Attention: Nick Recchia**

Report Date: 02/07/2022  
**Client Project ID: 1800522-11.1 Park Construction**  
York Project (SDG) No.: 22A1096

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE  
[www.YORKLAB.com](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371

132-02 89th AVENUE  
FAX (203) 357-0166

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 02/07/2022  
Client Project ID: 1800522-11.1 Park Construction  
York Project (SDG) No.: 22A1096

**GEI Consultants, Inc**  
1000 New York Avenue  
Huntington Station NY, 11746  
Attention: Nick Recchia

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on January 27, 2022 and listed below. The project was identified as your project: **1800522-11.1 Park Construction**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
22A1096-01	PT-1	Vapor Extraction	01/26/2022	01/27/2022
22A1096-02	PT-2	Vapor Extraction	01/26/2022	01/27/2022

## **General Notes for York Project (SDG) No.: 22A1096**

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:** 

**Date:** 02/07/2022

Cassie L. Mosher  
Laboratory Manager





## Sample Information

**Client Sample ID:** PT-1

**York Sample ID:** 22A1096-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
22A1096	1800522-11.1 Park Construction	Vapor Extraction	January 26, 2022 9:30 am	01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m <sup>3</sup>	0.86	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m <sup>3</sup>	1.2	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m <sup>3</sup>	0.86	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-34-3	1,1-Dichloroethane	ND		ug/m <sup>3</sup>	0.64	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m <sup>3</sup>	0.16	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m <sup>3</sup>	1.2	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m <sup>3</sup>	0.78	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
106-93-4	1,2-Dibromoethane	ND		ug/m <sup>3</sup>	1.2	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.95	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
107-06-2	1,2-Dichloroethane	ND		ug/m <sup>3</sup>	0.64	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
78-87-5	1,2-Dichloropropane	ND		ug/m <sup>3</sup>	0.73	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m <sup>3</sup>	0.78	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
106-99-0	<b>1,3-Butadiene</b>	<b>2.1</b>	TO-LCS -H	ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.95	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m <sup>3</sup>	0.73	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.95	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
123-91-1	1,4-Dioxane	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
78-93-3	<b>2-Butanone</b>	<b>0.51</b>		ug/m <sup>3</sup>	0.47	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
591-78-6	* 2-Hexanone	ND		ug/m <sup>3</sup>	1.3	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS



## Sample Information

**Client Sample ID:** PT-1

**York Sample ID:** 22A1096-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22A1096

1800522-11.1 Park Construction

Vapor Extraction

January 26, 2022 9:30 am

01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m <sup>3</sup>	2.5	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
108-10-1	4-Methyl-2-pentanone	3.3		ug/m <sup>3</sup>	0.65	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
67-64-1	Acetone	14		ug/m <sup>3</sup>	0.75	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
107-13-1	Acrylonitrile	ND		ug/m <sup>3</sup>	0.34	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
71-43-2	Benzene	5.5	TO-CC V, TO-LCS -L	ug/m <sup>3</sup>	0.51	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
100-44-7	Benzyl chloride	ND		ug/m <sup>3</sup>	0.82	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-27-4	Bromodichloromethane	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-25-2	Bromoform	ND		ug/m <sup>3</sup>	1.6	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
74-83-9	Bromomethane	ND		ug/m <sup>3</sup>	0.62	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-15-0	Carbon disulfide	ND		ug/m <sup>3</sup>	0.49	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
56-23-5	Carbon tetrachloride	0.50		ug/m <sup>3</sup>	0.25	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
108-90-7	Chlorobenzene	ND		ug/m <sup>3</sup>	0.73	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-00-3	Chloroethane	ND		ug/m <sup>3</sup>	0.42	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
67-66-3	Chloroform	ND		ug/m <sup>3</sup>	0.77	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
74-87-3	Chloromethane	1.1		ug/m <sup>3</sup>	0.33	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.16	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.72	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
110-82-7	Cyclohexane	ND		ug/m <sup>3</sup>	0.55	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
124-48-1	Dibromochloromethane	ND		ug/m <sup>3</sup>	1.3	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-71-8	Dichlorodifluoromethane	1.7		ug/m <sup>3</sup>	0.78	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
141-78-6	* Ethyl acetate	1.3		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
100-41-4	Ethyl Benzene	0.69		ug/m <sup>3</sup>	0.69	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS



## Sample Information

**Client Sample ID:** PT-1

**York Sample ID:** 22A1096-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22A1096

1800522-11.1 Park Construction

Vapor Extraction

January 26, 2022 9:30 am

01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
87-68-3	Hexachlorobutadiene	ND		ug/m <sup>3</sup>	1.7	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
67-63-0	<b>Isopropanol</b>	<b>8.7</b>	B	ug/m <sup>3</sup>	1.6	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
80-62-6	Methyl Methacrylate	ND		ug/m <sup>3</sup>	0.65	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m <sup>3</sup>	0.57	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-09-2	Methylene chloride	ND		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
142-82-5	n-Heptane	ND		ug/m <sup>3</sup>	0.65	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
110-54-3	<b>n-Hexane</b>	<b>0.56</b>		ug/m <sup>3</sup>	0.56	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
95-47-6	o-Xylene	ND		ug/m <sup>3</sup>	0.69	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>2.1</b>		ug/m <sup>3</sup>	1.4	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
622-96-8	* p-Ethyltoluene	ND		ug/m <sup>3</sup>	0.78	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
115-07-1	<b>* Propylene</b>	<b>3.6</b>		ug/m <sup>3</sup>	0.27	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
100-42-5	Styrene	ND		ug/m <sup>3</sup>	0.67	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
127-18-4	<b>Tetrachloroethylene</b>	<b>14</b>		ug/m <sup>3</sup>	1.1	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
109-99-9	* Tetrahydrofuran	ND		ug/m <sup>3</sup>	0.93	1.584	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 07:49	AS
108-88-3	<b>Toluene</b>	<b>27</b>		ug/m <sup>3</sup>	0.60	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.63	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.72	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
79-01-6	<b>Trichloroethylene</b>	<b>0.34</b>		ug/m <sup>3</sup>	0.21	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m <sup>3</sup>	0.89	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
108-05-4	Vinyl acetate	ND		ug/m <sup>3</sup>	0.56	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
593-60-2	Vinyl bromide	ND		ug/m <sup>3</sup>	0.69	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS
75-01-4	<b>Vinyl Chloride</b>	<b>0.53</b>	TO-LCS -H	ug/m <sup>3</sup>	0.20	1.584	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 07:49	AS



## Sample Information

**Client Sample ID:** PT-2

**York Sample ID:** 22A1096-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22A1096

1800522-11.1 Park Construction

Vapor Extraction

January 26, 2022 12:45 pm

01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m <sup>3</sup>	0.84	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m <sup>3</sup>	1.2	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m <sup>3</sup>	0.84	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-34-3	1,1-Dichloroethane	ND		ug/m <sup>3</sup>	0.62	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m <sup>3</sup>	0.15	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>0.76</b>		ug/m <sup>3</sup>	0.76	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
106-93-4	1,2-Dibromoethane	ND		ug/m <sup>3</sup>	1.2	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.93	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
107-06-2	1,2-Dichloroethane	ND		ug/m <sup>3</sup>	0.62	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
78-87-5	1,2-Dichloropropane	ND		ug/m <sup>3</sup>	0.71	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m <sup>3</sup>	0.76	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
106-99-0	1,3-Butadiene	ND	TO-LCS -H	ug/m <sup>3</sup>	1.0	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.93	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m <sup>3</sup>	0.71	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.93	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
123-91-1	1,4-Dioxane	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
78-93-3	<b>2-Butanone</b>	<b>0.50</b>		ug/m <sup>3</sup>	0.45	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
591-78-6	* 2-Hexanone	ND		ug/m <sup>3</sup>	1.3	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
107-05-1	3-Chloropropene	ND		ug/m <sup>3</sup>	2.4	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS



## Sample Information

**Client Sample ID:** PT-2

**York Sample ID:** 22A1096-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22A1096

1800522-11.1 Park Construction

Vapor Extraction

January 26, 2022 12:45 pm

01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m <sup>3</sup>	0.63	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
67-64-1	Acetone	7.2		ug/m <sup>3</sup>	0.73	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
107-13-1	Acrylonitrile	ND		ug/m <sup>3</sup>	0.33	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
71-43-2	Benzene	2.3	TO-CC V, TO-LCS -L	ug/m <sup>3</sup>	0.49	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
100-44-7	Benzyl chloride	ND		ug/m <sup>3</sup>	0.80	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-27-4	Bromodichloromethane	ND		ug/m <sup>3</sup>	1.0	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-25-2	Bromoform	ND		ug/m <sup>3</sup>	1.6	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
74-83-9	Bromomethane	ND		ug/m <sup>3</sup>	0.60	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-15-0	Carbon disulfide	ND		ug/m <sup>3</sup>	0.48	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
56-23-5	Carbon tetrachloride	0.48		ug/m <sup>3</sup>	0.24	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
108-90-7	Chlorobenzene	ND		ug/m <sup>3</sup>	0.71	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-00-3	Chloroethane	ND		ug/m <sup>3</sup>	0.41	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
67-66-3	Chloroform	ND		ug/m <sup>3</sup>	0.75	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
74-87-3	Chloromethane	1.1		ug/m <sup>3</sup>	0.32	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.15	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.70	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
110-82-7	Cyclohexane	ND		ug/m <sup>3</sup>	0.53	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
124-48-1	Dibromochloromethane	ND		ug/m <sup>3</sup>	1.3	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-71-8	Dichlorodifluoromethane	1.9		ug/m <sup>3</sup>	0.76	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
141-78-6	* Ethyl acetate	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
100-41-4	Ethyl Benzene	ND		ug/m <sup>3</sup>	0.67	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
87-68-3	Hexachlorobutadiene	ND		ug/m <sup>3</sup>	1.6	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS



## Sample Information

**Client Sample ID:** PT-2

**York Sample ID:** 22A1096-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22A1096

1800522-11.1 Park Construction

Vapor Extraction

January 26, 2022 12:45 pm

01/27/2022

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	<b>Isopropanol</b>	<b>3.3</b>	B	ug/m <sup>3</sup>	1.5	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
80-62-6	Methyl Methacrylate	ND		ug/m <sup>3</sup>	0.63	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m <sup>3</sup>	0.55	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-09-2	Methylene chloride	ND		ug/m <sup>3</sup>	1.1	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
142-82-5	n-Heptane	ND		ug/m <sup>3</sup>	0.63	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
110-54-3	n-Hexane	ND		ug/m <sup>3</sup>	0.54	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
95-47-6	<b>o-Xylene</b>	<b>0.67</b>		ug/m <sup>3</sup>	0.67	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>1.9</b>		ug/m <sup>3</sup>	1.3	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
622-96-8	* p-Ethyltoluene	ND		ug/m <sup>3</sup>	0.76	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
115-07-1	* <b>Propylene</b>	<b>2.1</b>		ug/m <sup>3</sup>	0.26	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
100-42-5	Styrene	ND		ug/m <sup>3</sup>	0.66	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
127-18-4	<b>Tetrachloroethylene</b>	<b>62</b>		ug/m <sup>3</sup>	1.0	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
109-99-9	* Tetrahydrofuran	ND		ug/m <sup>3</sup>	0.91	1.539	EPA TO-15 Certifications:	02/04/2022 09:00	02/05/2022 08:42	AS
108-88-3	<b>Toluene</b>	<b>5.6</b>		ug/m <sup>3</sup>	0.58	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.61	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.70	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
79-01-6	<b>Trichloroethylene</b>	<b>1.2</b>		ug/m <sup>3</sup>	0.21	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>0.86</b>		ug/m <sup>3</sup>	0.86	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
108-05-4	Vinyl acetate	ND		ug/m <sup>3</sup>	0.54	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
593-60-2	Vinyl bromide	ND		ug/m <sup>3</sup>	0.67	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS
75-01-4	Vinyl Chloride	ND		ug/m <sup>3</sup>	0.20	1.539	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	02/04/2022 09:00	02/05/2022 08:42	AS





## Sample and Data Qualifiers Relating to This Work Order

TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
TO-LCS-H	The result reported for this compound may be biased high due to its behavior in the analysis batch LCS where it recovered greater than 130% of the expected value.
TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

### Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.



Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

---





Periodic Review Report  
December 28, 2021, to April 28, 2023  
37-24 & 37-28 30<sup>th</sup> Street  
BCP Site No. C241214  
July 2023

## **Appendix J**

---

### **SSDS Monitoring Forms**

37-24 and 37-28 30th Street SSDS System

Log Sheet

Performed By: <u>B. Fitchett</u>	Outside Temperature: <u>40F</u>
Date: <u>11/16/22</u>	Outside Weather: <u>overcast/rain</u>
Time: <u>7:30</u>	Comments
<b>SSDS Blower System</b>	
Any Active Alarms:	Y/ <input checked="" type="radio"/> N
SSDS Control Panel Switches on Auto:	<input checked="" type="radio"/> Y/N
Flow (SCFM):	<u>N/A</u>
Influent Air Vacuum (InWC):	<u>N/A</u>
Effluent Air Pressure (InWC):	<u>0</u>
Effluent PID (ppm):	<u>N/A</u>
<b>SSDS Monitoring Points</b>	
Monitoring Point	Vacuum Reading (InWC)
1 (2)	<u>-0.077</u>
2 (2)	<u>NA - cannot be located</u>
3 (1)	<u>-0.040</u>
4 (1)	<u>-0.068</u>
5 (2)	<u>-0.300</u>
6 (2)	<u>-0.103</u>
7 (1)	<u>-0.032</u>
8 (1)	<u>-0.030</u>
Comments: <u>Fan # 1 at 'high' setting (37-24 30th St) Fan # 2 at 'low' setting</u> <span style="margin-left: 150px;">↳ 37-28 30th St.</span>	

InWC: Inch of Water

PID: Photoionization Detector

ppm: parts per million

SSDS: Sub-slab Depressurization System

**37-24 and 37-28 30th Street SSDS System**

**Log Sheet**

Performed By: <u>Bill Fitchett</u>		Outside Temperature: <u>~30°F</u>	
Date: <u>12/13/22</u>		Outside Weather: <u>Partly Cloudy</u>	
Time: <u>1000</u>		Comments	
<b>SSDS Blower System</b>			
Any Active Alarms:		<u>Y/10</u>	
SSDS Control Panel Switches on Auto:		<u>Y/N N/A</u>	
Flow (SCFM):		<u>N/A</u>	
Influent Air Vaccum (InWC):		<u>0 inWC</u>	
Effluent Air Pressure (InWC):		<u>N/A</u>	
Effluent PID (ppm):		<u>0.10 ppm (for both)</u>	
<b>SSDS Monitoring Points</b>			
Monitoring Point		Vaccum Reading (InWC)	
1		<u>-0.084 in WC / -0.073 inWC</u>	
<del>2</del>		<del>_____</del>	
3		<u>-0.048 inWC</u>	
4		<u>-0.068 inWC</u>	
5		<u>-0.028 inWC / -0.040 inWC</u>	
6		<u>-0.014 inWC / -0.128 inWC</u>	
7		<u>-0.024 inWC</u>	
8		<u>-0.030 inWC</u>	
Comments: <u>Fan # 2 (37-28 30th Street) was moved up to 'medium' setting due to vacuum reading of &lt;-0.02 in mp-6. second round of readings collected 12/14/22 after 24-hours</u>			

Second readings listed are from 12/14/22

InWC: Inch of Water  
 PID: Photoionization Detector  
 ppm: parts per million  
 SSDS: Sub-slab Depressurization System